General Information

Message From the President

Welcome to West Virginia Northern Community College! You have come to the right place to make your mark on the world.

Our college has been a valuable community resource for the past 50 years. We serve students of all ages and backgrounds. Whether you are the first in your family to attend college or are from a long line of college graduates, if you are participating in one of our workforce development programs or you are pursuing an associate degree -- you belong here.

Many students come to Northern to earn an associate degree. Some enroll in the initial two years of a bachelor's degree here then transfer to a university to complete the remaining two years. Many others seek a one-year certificate in career training to develop skills and enter the workforce as our community's skilled energy workers, nurses, first responders, chefs, teachers, accountants, business leaders, entrepreneurs, and more. Many high school juniors and seniors enroll in our early access courses earning college credits while in high school - saving money and shortening their path to a degree. Still others take courses for personal enrichment, to learn and to grow personally.

As the compass in our logo indicates, we are here to help you navigate your life's journey. Is your ultimate goal a bachelor's degree? Northern is the ideal place to start as we have a number of programs that transfer to four-year colleges and universities. We have many 2+2 agreements with regional institutions that streamline the transfer process and can save you tens of thousands of dollars. By starting at Northern and taking advantage of these transfer opportunities, you can stay home, save money, and possibly continue working while completing your degree at Northern.

If you are seeking workforce training or an industry certification that prepares you for immediate employment or for career advancement, we have that too. Northern has workforce training programs to prepare you for a career in health care like CNA and phlebotomy, business, applied and industrial technology, information technology, cyber security, EMT/paramedic, criminal justice, human services, culinary arts, CDL Class A & Class B, and more.

Affordability is an important consideration when navigating higher education. Northern is listed in the U.S. Department of Education's List of Top 100 Community Colleges for Lowest Net Tuition in the nation. For the past several years, we have been the most affordable community college in the State of West Virginia. In addition, our Financial Aid Office stands ready to assist you in identifying and applying for federal financial aid, West Virginia Invests, and other private scholarship opportunities. Through our foundation, Northern also offers a variety of privately funded scholarship opportunities.

Looking for classes conveniently located in the Northern Panhandle? Northern has you covered with campuses conveniently located in Weirton, Wheeling, and New Martinsville. All three of our campuses are attractive and equipped with the latest instructional technologies.

Do you have work or family responsibilities requiring flexible scheduling? Northern can help with a wide variety of on-line courses and programs.

As you navigate your college experience, you'll discover amazing faculty and staff here at Northern who are committed to your success. Northern has excellent faculty who are experts in their fields, and many faculty have years of professional experience that enables them to connect the classroom to the work environment. Our friendly staff on all three campuses care about you and are here to help you succeed.

We are glad you chose Northern, and we look forward to helping you find your direction and achieve your goals.

I look forward to seeing you on one of our campuses soon.

Daniel P. Mosser, Ph.D.

WVNCC President

College Snapshot

- Coeducational, Tri-Campus, Public, Two-Year Comprehensive Community College.
- Established July 1, 1972, by the West Virginia Board of Regents.
- Programs in Liberal Arts and Sciences, Career-Technical, Workforce Development, Developmental Education, and Community and Continuing Education.
- "Open-Door" Admissions Policy for College.

Mission Statement

West Virginia Northern is a comprehensive community college that provides affordable, quality education and training for all who wish to learn. Northern strengthens our community and empowers individuals to pursue fulfilling lives.

Vision Statement

WVNCC will be a trusted and valued community partner in lifelong learning.

We will:

1. **Invest in Human Capital**
    1. Assess, update, and improve employee training and professional development.
    2. Improve the employee lifecycle from recruitment through succession planning.
    3. Improve human and financial resource utilization.
2. **Integrate technology to increase student success and organizational efficiency.**
    1. Advance technology utilization, effectiveness, and efficiency.
    2. Expand the use of technology-enhanced teaching and learning
    3. Improve student engagement.
3. **Fully implement and institutionalize the advising model.**
    1. Assess and adapt pathways and course modalities to student needs.
    2. Establish the advising communication plan.
    3. Expand access to the advising model for all students.
4. **Meet workforce training needs of our communities.**
    1. Align credit and non-credit pathways and processes.
    2. Expand personal, career, and economic growth opportunities through continuing education.
    3. Develop and strengthen community partnerships.
5. **Expand student access to growth opportunities.**
    1. Guide students to resources to address their needs.
    2. Foster a safe, positive, and holistic student experience.
    3. Broaden marketing reach and recruitment efforts.

A Pledge to Students

We, the faculty, staff and administrators of West Virginia Northern Community College, reaffirm our commitment to our common mission:

Excellence in Teaching and Learning.

As members of an academic community, we pledge to unite ourselves to support the success of all who wish to learn.

As faculty, we are a community of scholars who place a top priority on teaching, learning and advising.

As staff, we serve the students and the College by facilitating and enhancing the total educational process.

As administrators, we provide leadership for the development of students, faculty and staff; and we accept the responsibility for quality and accountability for the total development of the Upper Ohio Valley.

At Northern, the values of a college education and service take precedence over the values of wealth and status.

Compliance Process Updates

In keeping with the federal legislation, state of West Virginia legislative changes and regulations, including the Higher Education Opportunity Act, Family Educational Rights and Privacy Act, as amended, the Clery Act including the Campus SAVE and VAWA regulations, WVNCC is creating and/or updating processes, policies and procedures to comply with these changes.

For additional details, contact the appropriate area of the College. As the College responds to these changes and mandates, information will be made available on the College's website and through student notifications, etc., as necessary.

Academic Calendar

Fall 2026

Registration Begins (1 p.m.)	(T)	Apr. 14
Full Semester Classes Begin	(M)	Aug. 24
Holiday (Labor Day)	(S-M)	Sept. 5 - Sept. 7
Mid-term	(W)	Oct. 7
(Mid-term grades for full-term courses are posted on Northern on the Web)		
Last Day to drop/Withdrawal from College	(F)	Nov. 20
Holiday (Thanksgiving) Break	(W-U)	Nov. 25 - Nov. 29
Classes End	(F)	Dec. 11
Grades Due	(M)	Dec. 14 (10 AM)

Winter Break (College Closed)	(M-R)	Dec 21-Jan 1

Spring 2027

Registration Begins (1 p.m.)	(T)	Nov. 10, 2025
Holiday (Martin Luther King, Jr. Day)	(M)	Jan. 18
Full Semester Classes Begin	(T)	Jan. 19
Mid-term	(W)	Mar. 3
(Mid-term grades for full-term courses are posted on Northern on the Web)		
Spring Break	(U-U)	Mar. 14- 21
Last Day to drop/withdrawal from College	(F)	Apr. 16
Classes/Semester End	(F)	May 14
Grades Due (10 a.m)	(M)	May 17
Commencement	(R)	May 13

Summer 2027

Registration Begins (1 p.m.)	(T)	Nov. 10
Full Semester Classes Begin	(M)	May 24
Holiday (Memorial Day)	(M)	May 31
Holiday (Independence Day Observed)	(M)	July 5
Second Half of Semester Begins	(M)	Jul. 6
Last Day to drop/withdrawal from College	(F)	Jul. 30
Classes End	(F)	Aug. 13

U - Sunday M - Monday T - Tuesday W - Wednesday R - Thursday F - Friday S - Saturday

Accreditations

College Accreditation Agency

Higher Learning Commission

West Virginia Northern Community College is accredited by the Higher Learning Commission (HLC) through 2028-2029.

230 South LaSalle Street Suite 7-500
Chicago, IL 60604-1411
Phone: 800-621-7440
www.hlcommission.org

Specialized Accreditation Agencies

Accreditation Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326
Phone: 404.975.5000
www.acenursing.org

Accreditation Review Council for Surgical Technologists and Surgical Assisting ARC/STSA
19751 East Mainstreet, Suite #339
Parker, CO 80138
Phone: 303-694-9262
www.arcstsa.org

American Culinary Federation
6816 Southpoint Pkwy Ste 400
Jacksonville, FL 32216
Phone: 904-824-4468
www.acfchefs.org

American Health Information Management Association
35 W. Wacker Dr., 16th Floor
Chicago, IL 60601-5519
Phone: 312-233-1100
www.ahima.org

American Medical Technologist (AMT)
10700 West Higgins Rd, Suite 150
Rosemont, IL 60601
847-823-5169
https://americanmedtech.org/

American Welding Society
8669 NW 36 Street, # 130
Miami, Florida 33166-6672
800-443-9353
aws.org

Commission on the Accreditation of Allied Health Education Programs (CAAHEP)
9355 - 113th St. N, #7709
Seminole, FL 33775

Phone: (312)235-3255
www.caahep.org

Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
200 East Randolph Street
Suite 5100
Chicago, IL 60601-5800
Phone: 312-233-1100
www.cahiim.org

HVAC Excellence
PO Box 521
Mount Prospect, IL 60056-0521
Phone:800-726-9696
www.escogroup.org/hvac/

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, Illinois 60606-3182
Phone: 312-704-5300
www.jrcert.org

West Virginia Board of Examiners for Registered Professional Nurses
5001 MacCorkle Ave. SW
South Charleston, WV 25309
Phone 304-744-0900
Fax: 304-744-0600
wvrnboard.wv.gov

West Virginia Northern Community College, pursuant to the requirements of Titles IV, VI, VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, does not discriminate against applicants, employees, or students on the basis of race, color, religion, sex, disability, age, gender, ancestry, marital or parental status or national origin in its employment policies and/or educational programs or activities, including admissions to such.

Inquiries concerning this rule should be directed to the Director of Human Resources, Robert Brak, who is designated coordinator for Title IX and Section 504. His telephone number is 304-214-8901 and his office is located in Room 119, B&O Building, Wheeling campus. His email address is rbrak@wvncc.edu.

The College

Organization

West Virginia Northern Community College is a public, multi-campus comprehensive community college which serves the six counties of Hancock, Brooke, Ohio, Marshall, Wetzel and Tyler. On May 9, 1972, the West Virginia Board of Regents created a dual-campus community college out of what were formerly the Hancock County Branch and the Wheeling Campus of West Liberty State College (now University.) Responding to local community requests, the College began offering courses in New Martinsville in 1973 and established a campus there in 1975. To satisfy community needs, the College offers courses at a variety of other sites within the six-county service area and participates in a tuition reciprocity agreement serving students in seven neighboring Ohio counties: Belmont,

Columbiana, Harrison, Jefferson, Mahoning, Monroe and Trumbull. Metro rates apply to other designated areas in Ohio and Pennsylvania. As a comprehensive community college, West Virginia Northern offers a wide variety of programs and courses in the liberal arts and sciences, career-technical education, work place training, developmental studies, and community and continuing education. Under an open-door enrollment policy, the College admits all adults desiring postsecondary education. High school students recommended by their schools for early entrance are also admitted. Graduates receive Associate in Arts degrees, Associate in Science degrees, Associate in Applied Science degrees and certificates.

Campus Facilities

West Virginia Northern Community College has campuses located in Weirton, Wheeling and New Martinsville, with the central administrative offices located on the Wheeling Campus.

New Martinsville Campus

The New Martinsville Campus is located at 141 Main Street and is adjacent to the New Martinsville Municipal Building. It houses classrooms, computer labs, faculty and administrative offices, advising and student services, student lounge, Academic Resource Center, telecommunications classroom, science lab, and a conference room for business and community meetings.

The Francis Creative Arts Center, a two-story brick structure in close proximity to the main campus facility is home to ArtsLink, the arts council of Wetzel and Tyler counties.

Weirton Campus

The Weirton Campus is located in Weirton Heights at 150 Park Avenue on a wooded 20-acre lot. It houses classrooms, computer labs, faculty offices and administrative offices, advising and student services, student lounge, Academic Resource Center, science and nursing labs, and a conference room for business and community meetings.

Wheeling Campus

The Wheeling campus is located at 1704 Market Street at the southern end of the business district. The B&O Building originally was the main passenger terminal of the Baltimore and Ohio Railroad. It contains the administrative offices of the College, advising and student services, Business Office, Academic Resource Center, classrooms, laboratories, faculty offices, and Workforce and Continuing Education offices.

The Education Center, renovated in 2006, was formerly a warehouse. This building, located on Chapline Street across from the B&O building, houses the culinary arts facility, all health sciences laboratories, classrooms, faculty offices, student and faculty/ staff lounges, fitness center, as well as a 5,000 square foot multi-purpose room.

The Applied Technology Center, opened for the start of the fall 2013 semester. The ATC is located at the corner of Market and 16th streets across from the B&O Building. The ATC houses the Advanced Manufacturing and the Refrigeration, Air Conditioning and Heating Technology programs.

The Industrial Technology Center (formerly the WESCO building) opened in 2019. The ITC houses the welding and energy technolog programs as well as classrooms and a student lounge.

Library/Academic Resource Center

Each campus of West Virginia Northern Community College has a separate Library/Academic Resource Center (ARC). A wide variety of resources, both in print (24,000 volumes) and digital, are available for use by students, faculty, and staff. Access to the collection of resources in the ARC is provided through the online catalog. To access the catalog, or many of the other electronic resources and databases, please go to the ARC Web page at: https://www.wvncc.edu/current-students/librarylearning-resource-center/1159 or find on the College home page at www.wvncc.edu on the right under "More" and then "Library." Students, faculty, and staff can also access library resources within their respective portal. Each campus ARC has a number of desktop computers available to students for research, class assignments, word processing, and Internet searching. The friendly and knowledgeable ARC staff can guide individuals and groups through the successful use of library resources and services.

Technology Within the College

West Virginia Northern Community College believes in acquiring and using technological tools, which help people learn effectively and work more efficiently, improve classroom experience for teachers and learners and lead forward-thinking, innovative trends.

All three campuses are linked multiple ways for use with interactive audio, video, and data. The system allows classes to originate at any location, enabling the instructor to maintain two-way audio and video contact with students. It allows the College to provide more course offerings to all campuses and to better utilize the expertise of its faculty. Conferences, seminars and short-term instructional programs are possible with the telecommunications equipment.

WVNCC offers the students, staff and faculty a wide variety of comprehensive and current learning resources that are easily accessible. Each ARC has computers for student use and numerous student state-of-the-art computer labs that are available on each of the campuses. Brightspace is used for online course development. All classrooms on WVNCC's three regional campuses are equipped with instructional technology. Secure wireless internet service is provided on all campuses. From the web-site, students can access the Student Portal which provides access to N.O.W. (Northern On the Web), school email, and a host of other services that WVNCC offers . N.O.W. gives students access to grades and online registration, . Technical support for email accounts is provided by the College's Office of Information Technology.

Email Accounts

The College assigns an email account to all students in credit hour courses upon admission. Instructions on using the account are available at each Campus Student Succes Center or through the ACTion Center. The College also assigns adjunct faculty, full time faculty and staff an email account. Students, faculty and staff must use their Northern assigned accounts for all official College transactions. The College will also provide its annual FERPA notice, campus crime statistics notification and other College information through this email account. Technical support for email accounts is provided by the College's Office of Information Technology.

Partnerships

West Virginia Northern is pledged to a partnership strategy for the development of the Northern Panhandle. Partnerships between industry and education to identify needed general and technical skills are the best guarantee of industry's success and of employee security and satisfaction. All the College curricula are designed and evaluated with the assistance of advisory committees. Partnership with other educational institutions, economic development and other civic and cultural groups is also a constant part of the College's agenda for development.

Major partnerships include the following:

- Secondary schools in our region for articulation of their technical programs for credit towards an A.A.S. Degree.
- Partnerships with Mountaineer Casino, Racetrack and Resort and Wheeling Island Hotel-Casino-Racetrack to offer training for table game dealers.
- Partnership with four-year colleges to effect full transfer of West Virginia Northern courses into baccalaureate degree programs.
- Partnership with Northern Panhandle Workforce Development Board to provide services through the American Job Center.
- Bridges to Communities - liaison with organizations such as area chambers of commerce, ArtsLink, Wheeling National Heritage Area Corporation, Regional Economic Development Partnership, Brooke Hancock Business Development Corporation, West Virginia Northern Community College Foundation, and Friends of the College organizations at the New Martinsville, Weirton and Wheeling campuses.

Admissions and Residency Processes

Admissions Policy and Procedures

West Virginia Northern Community College is an open door college admitting students to the College regardless of academic background. The College admits students as degree seeking or non-degree seeking, early access high school students or those enrolling in career development or community education. Some programs are limited enrollment with specific entrance requirements, including Allied Health. The College admissions policy follows the basic guidelines of the WV Community and Technical College System.

Applications and information may be obtained from any Campus Service Center, through local high school counselor offices, or online at the College's website. There are separate applications for general admission, career development, community education and early access/home-schooled students. General admission student applications may be submitted online or at any Campus Service Center.

All general admission students must select a Program of Study at the time of application for admission. A separate application for admission into a Health Sciences program is required in addition to the general application. Students cannot double major; the College has no minors. The College is required to maintain a list of states where Northern is authorized to offer a state's residents distance education. A current list of states is available on the College's website, on the Online Programs/Courses page. Northern is not permitted to enroll students in courses in states where it does not have current authorization for distance education.

In addition to the admissions application the following is required at the College:

- A U.S. high school transcript or high school equivalency scores from a state agency approved test program. Final, official transcripts must be sent with graduation date from the high school. Note: Applicants who graduated from high school or passed their state approved high school equivalency more than five years prior to admission and/or have earned 30 or more semester hours of credit at a regionally accredited institution do not have to submit a high school transcript/equivalency scores for admission (but may need to for financial aid or selective admission programs).
- Transfer students must provide an official transcript from each regionally accredited institution the student attended. Transcripts cannot be older than 120 days (transcripts from other colleges may be needed for financial aid purposes).
- Early access students must submit permission of high school officials and parents through a special early access admission application.

- Foreign national students are admitted as full-time students only. They must demonstrate a satisfactory command of the English language, provide evidence of sufficient support funds, and meet standard expectations of the U.S. Immigration Office to obtain a visa through WVNCC.
- Returning students who have not enrolled in WVNCC courses for more than one year must submit a new application for admission that will update their major to the current catalog.
- Transfer students who have been dismissed from other colleges for disciplinary reasons are required to undergo review to determine if they will be admitted and must report this on their admission application.
- Home-schooled students may be required to submit written verification of subject mastery.

Student placement skills information is recommended for all admitted general admission and early access students in order to determine academic preparation for course placement and program entry. This assessment should be completed prior to enrollment and entry into specific courses and programs. Placement skills information may include the following:

- Official college transcripts from an AACRAO accredited institution showing completion of an approved college level mathematics and/or English course.
- ACT or SAT scores.
- High school grades, GPA, or equivalency (HSE) test scores

Nursing and Allied Health Selection and Admission

The Allied Health programs have limited enrollment and a selective review process.

Applicants must meet all general admission criteria for the College; Allied Health, or Nursing application (including an application fee); provide official copies of their high school transcript, prior college transcripts, and any requirements specific to admission for the student's intended program. See the applicable application and individual program webpage for any additional items needed. Early application is highly recommended. For more information contact the Nursing and Allied Health Division Chair or refer to the College's website under Programs of Study then Health care Professions.

Classification of Residents and Non-Residents for Admission and Fee Purposes

West Virginia Northern adheres to Council for Community and Technical College Education and Higher Education Policy Commission policy for determining residency for tuition and fee purposes. Generally, a student who did not reside in WV (or a reciprocity or Metro county) for 12 consecutive months prior to the start of classes is considered an out of state student. The Records Office is responsible for administering this policy, which is cited below. The decision of the Registrar may be appealed in accordance with the Student Appeals Committee for Non-Academic Matters. The policy states:

1. **Classification for Admission and Fee Purposes.** Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition and fee purposes. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision will be made by the Registrar's Office, and shall be based upon information furnished by the student and all other relevant information. Appeal of the decision is to be made to the Registrar's Office. The Registrar's Office is authorized to require such written documents, affidavits, verifications or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition and fee purposes is upon the student.

If there is a question as to domicile, the matter must be brought to the attention of the Rgistrar's Office at least two weeks prior to the deadline for the payment of tuition and fees. Students found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident tuition and fees for each academic term theretofore attended.

The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

2. **Residence Determined by Domicile.** Domicile within West Virginia means adoption of West Virginia as the fixed permanent home and involves personal presence within West Virginia with no intent on the part of the applicant or, in the case of a dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in West Virginia for admission or fee payment purposes.

   West Virginia domicile may be established upon the completion of at least 12 months of continued presence within West Virginia prior to the date of registration, provided that such 12 months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia. Establishment of West Virginia domicile with less than 12 months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action.

   In determining domicile, institutional officials give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within West Virginia, payment of West Virginia property tax, filing of West Virginia income tax returns, registration of motor vehicles in West Virginia, possession of a valid West Virginia driver's license and/or marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence that may be used in determining whether or not a domicile has been established.

   Factors mitigating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal tax forms or the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states and leaving West Virginia when school is not in session.

3. **Dependency Status.** Dependent students are those who are listed as dependents on the federal or state income tax return of their parent(s) or legal guardian or who receive major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, dependent students take the domicile of the parent with whom they live or to whom they have been assigned by court order.

   However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

   A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in West Virginia for admission or fee payment purposes.

4. **Change of Residence.** Individuals who have been classified as out-of-state students and who seek resident status in West Virginia must assume the burden of providing conclusive evidence that a domicile has been established in West Virginia with the intention of making this state the permanent home. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions referenced in Sect. 2. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification. It is the student's responsibility to notify the Financial Aid Office.

5. **Military.** An individual who is on full-time active military service in another state or a foreign country or an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees provided that the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes. Students who are eligible for Chapter 35 benefits and live in the state of the institution shall be considered in-state,

   Persons assigned to full-time active military service in West Virginia and residing in the state shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

   Any student living in West Virginia and receiving education or vocational rehabilitation benefits from the U.S. Department of Veterans Affairs shall be charged in-state tuition and fees to attend a West Virginia public institution of higher education so long as such student is considered a "covered individual" as described in 38 U.S.C. § 3679, as in effect at any time.
6. **Aliens.** Students who meet the domiciliary requirements noted in Sections 3, 4, and 5 of this policy, and who are U.S. Permanent Resident Aliens, Political Asylums or Political Refugees, or who hold an A, E, G, H, I, L, O, P, R, TD, TN, U, or V visa, may apply to be reviewed for in-state residency for tuition purposes.

   Students who hold B, C, D, F, J, K, M, or Q visas are not eligible for establishing in-state residency for tuition purposes.

   Students who meet the domiciliary requirements and who are the beneficiary of a pending I-485 application to adjust status to permanent resident may apply to be reviewed for in-state residency for tuition purposes.
7. **Former Domicile.** Individuals who were formerly domiciled in the State of West Virginia and who would have been eligible for an in-state residency classification at the time of departure from West Virginia may be immediately eligible for classification as West Virginia residents provided they return to West Virginia within a one-year period of time and satisfy the conditions of Sect. 2 regarding proof of domicile and intent to remain permanently in West Virginia.

Residency Appeal Process

The decision of the Registrar may be appealed in accordance with the Student Appeals Procedure for Non-Academic Matters. The appeal shall end at the institutional level.

Multiple Measures Placement

Multiple Measures Placement

WV Northern follows a policy of Multiple Measures Placement to place newly-admitted students in appropriate mathematics and English coursework. This policy was approved by the West Virginia Higher Education Policy Commission in October 2022. It is consistent with the Community College Research Center's findings that multiple measures assessment "generally has positive impact estimates on enrollment in and completion of gatekeeper courses in English and math." Initial implementation will begin with Fall 2023 registration.

Degree and certificate-seeking students are placed into English and Math courses using the following methods:

High School grade and GPA: Placement Score Table

ACT and SAT scores: Placement Score Table

High School Equivalency (HSE) tests: Placement Score Table

Placement exam administered by WVNCC: Placement Testing

Guided Self Placement

Students will work with an advisor to determine the most appropriate placement.

Academic Advising/Registration

Academic Advising Center

Students are assigned to a team of faculty and staff advisors upon admission. Students work with advisors to understand their placement options, create an educational plan, select courses, confirm financial aid and tuition documentation, and interpret College policies.

Based on program of study, each degree-seeking student is assigned a faculty/academic advising team during their first semester. Academic Advisors help students assess their academic, career, and life goals. Academic advisor assignments are coordinated through the Admissions and Registrar's offices.

First Year Seminar

WVNCC requires students admitted to Northern as first-time freshmen to enroll in a 1-credit hour First Year Seminar (FYS): Success Strategies course (ORNT 090). All full-time and part-time degree-seeking students should complete the FYS graduation requirement during the first semester, including those who:

- Have never attended WVNCC or another accredited college (courses taken during high school do not apply).
- Are transferring from unaccredited institutions.

This requirement does not apply to:

- Students admitted to Northern prior to fall 2013.
- Early Access (high school) students while in high school. (Unless degree seeking)
- Students transferring from regionally accredited institutions.
- Non-degree seeking students.

New Student Welcome Event

All new WV Northern students are recommended to participate in New Student Welcome Day. During this event, students will receive information related to:

- College resources.
- Registration processes.
- Student Portal.
- Student Email.
- Northern on the Web (N.O.W.).
- Program and graduation requirements.
- Financial aid and Veterans Benefits.
- Payment of Tuition & Fees.
- Campus Safety and Security.
- Parking and many other important topics.

This event takes place prior to the start of classes and is scheduled at each campus. Students should have registered for their semester classes prior to this event.

The Academic Schedule

The academic schedule for each semester and summer term is designed to assure academic program implementation plans and to meet identified interests and needs of students in multiple locations.

The schedule for spring classes is published the previous October; the fall class schedule is published in April. The summer schedule is typically published during the previous fall. The spring, summer and fall schedules are available online here.

The College is developing increasingly flexible and alternate methods of instruction as well as utilizing electronic methods to supplement traditional information, communication, and materials.

Courses are typically scheduled over two semesters of 15 weeks; however, some courses may be offered in five weeks, eight weeks, 10 weeks, or other time periods. Summer school classes are offered in a 12-week term. Classes offered during the 12-week Summer term have varying lengths and start at a variety of times.

Distance Education

The College is developing increasingly flexible and alternate methods of instruction as well as utilizing electronic methods to supplement course delivery, communication, and materials.

Online delivery is used for many courses at WVNCC. Class activities and requirements vary and meet the same outcomes and standards as traditionally offered courses. Interested students should seek information in advance of registration through the academic schedule, contacting the ACTion Center, or by contacting the instructor. Information on distance education courses, including modalities for course delivery, can be found at Online Course/Distance Education. WVNCC distance education courses are delivered through the College's learning management system.

Many In-person and hybrid courses will use video conferencing to connect students and instructors across multiple campuses. This delivery method expands course offerings by allowing students to participate from two or more campus locations while the instructor may be located at any campus. During class sessions, students and instructors can see, hear, and interact with one another in real time. In addition, instructors and students may communicate outside of class by phone, video conferencing, and email.

Other alternate methods for course participation are sometimes, but not always, possible to assist students. Such methods may include but are not limited to audio recording, video recording, or limited independent study. In special circumstances, especially when students have previously completed some aspects of the course in other means, individual Course Learning Contracts may be arranged. Alternate methods must be arranged directly with the instructor of the course. If an instructor has not been assigned yet to the course, students should consult the campus Service Center.

Alternate Methods for Achieving College Credit

Credit by Examination

Students who have developed a proficiency in specific subjects and have met the prerequisites may elect to earn credit for a course by taking a "Challenge Exam." Not all classes may be challenged. To take the exam, students must first register for the class and pay the required tuition (this cannot be covered by financial aid or Veteran's funds. After passing the examination, students will be exempt from specific course requirements and permitted to register in advanced courses in that subject field. A "K" grade will be given but will not be computed in the grade point average. However, the credit hours will be counted toward graduation requirements and for designation on Merit, Dean's and President's lists.

Interested students should contact the appropriate faculty member.

Advanced Placement Credits

In accordance with the West Virginia Council for Community and Technical College Education and the Higher Education Policy Commission, West Virginia Northern Community College recognizes the Advanced Placement Program of the College Entrance Examination Board as an instrument that allows high school students to master college-level subject matter and to document their intellectual achievements through successful completion of advanced placement examinations. West Virginia Northern Community College will accept Advanced Placement Credit if the high school student earns a minimum score of three on the specified test.

After applying for admission to West Virginia Northern, students should have the College Board Advanced Placement Examination Grade Report mailed directly to the Registrar's Office at West Virginia Northern.

Examination results will be validated by the Registrar's Office. The Registrar's Office will identify the amount of advanced placement credit that will be granted toward the degree requirements. Advanced placement credit will be documented on the transcript.

Advanced placement credit will receive a "K" grade on the West Virginia Northern transcript.

College Level Examination Programs

West Virginia Northern Community College will award credit for the College Level Examination Program (CLEP) within the following guidelines. All credit awarded will be in conformity with the West Virginia Council for Community and Technical College Education and Higher Education Policy Commission and all such credit will be transferable to all other institutions in the West Virginia state system of higher education.

General Exams – Students who attain the score required by the model policy of the Council on College Level Examinations of the College Board may receive credit for General Examinations. Such credit in general education may not meet specific program requirements, in which case the credit may be used as elective credit.

Subject Examinations – Students may be awarded credit for the successful completion of any or all CLEP presently offered or developed in the future, provided they achieve a score equal to or above the recommended scores of the Commission on Educational Credit and Credentials of the American Council on Education for CLEP examinations or the University of New York and American College Testing Program current at the time the examination is taken.

Credit will be awarded for the number of semesters for which the examinations were designed. Grades will not be assigned, and the credit will not be included in the computation of student's grade point average. The credit earned on CLEP Subject Examinations will be equated with existing course offerings at West Virginia Northern. If no equivalent course is offered at West Virginia Northern, the credit earned by CLEP examinations may be considered elective credit. Students will not receive CLEP credit for equivalent courses in which they have already earned credit.

Academic Record and Enrollment – The permanent academic record of students will indicate which credit was earned by CLEP xaminations. Students must be enrolled at West Virginia Northern in order to receive credit from West Virginia Northern. Students who have taken CLEP examinations prior to enrollment must submit an official CLEP transcript. Questions should be directed to the Registrar's Officer.

Students should take the appropriate CLEP exam(s) through the College Entrance Examination Board, Educational Testing Service, Princeton, New Jersey 08504.

Grade reports must be mailed directly to the Registrar's Office at West Virginia Northern Community College. The examination results will be validated by the Registrar's Officer.

Credit for Prior Learning Through Portfolio Assessment

The College will award academic credit for learning acquired through work or life experiences that are equivalent to coursework that meets degree requirements for the program in which the student is enrolled. Students may only petition for credit for courses listed in the current College catalog. Credit will be awarded for learning that is comparable to the stated course outcomes and scope of the course. Credit is awarded on a "K" basis and will be annotated on the transcript as experiential credit. A maximum of 30 credit hours may be awarded through the portfolio process in all programs except the Board of Governors program. Contact the Campus Service Center for CPL (Crdit Prior Learning) form or for further information.

Registration Policy and Procedures

Registration for classes including changes and withdrawal of enrollment in specific courses must be initiated by the student through completion of the registration process. Documentation of prerequisites for entry into specific courses is required prior to registration also.

The College provides extensive dates and times for registration. New students can register after corresponding with a faculty or staff advisor. Returning students may register by logging onto Northern on the Web (NOW) after corresponding with an academic advisor. Information on a students' academic advising team is listed on their student portal.

Registration is the admission "ticket" into classes. Registration must be completed prior to entry into the class. In some unusual instances, an instructor may permit a student to participate in one class session during the first week of classes prior to completion of registration. After the first week, participation by a non-registered student requires written authorization from the Vice President for Learning/Chief Academic Officer for a specified temporary period.

Before attending any class, a student must officially register and satisfy all financial obligations to the College. The College reserves the right to deny admission to class to any student who has not registered or remitted full payment of

tuition and fees. The College provides the opportunity for students to complete "early" registration prior to the beginning of classes. Students need to make financial arrangements by the established payment deadlines. Refer to Tuition and Financial Aid section of this catalog and the academic schedule.

Registration for audit of courses, that is, taking credit courses without evaluation and credit, must be specifically requested at the time of registration. Students must also inform the instructor of their registration for audit purposes only. Students are not permitted to change their registration from "audit" to "credit" or "credit" to "audit" after the first two weeks of the semester or a comparable period in short-term classes. This change is completed by submitting Audit Course Request form to the Campus Service Center. Audited courses do not count toward graduation and cannot be paid with Title IV financial aid funds.

Registration must occur prior to the start of classes. The College will publish a registration deadline for each semester. In addition, a drop/add week is established and will be published.

Changes in registration are completed by students online in NOW. Adding and dropping a class is completed online through NOW by the student. Students are responsible to immediately verify that written documentation accurately reflects the change intended. Students should consult the academic calendar concerning deadline to "drop" courses and read the regulations regarding grades and refunds as well as financial aid, if applicable. Students are strongly encouraged to talk with instructors and/or their academic advisor prior to making such changes. Often, alternatives or supplementary assistance may be available which makes course completion possible. In addition, students need to identify the impact of dropping specific courses. If the impact of a "drop" is complete withdrawal from all courses, then the student should follow instructions for "withdrawal from all courses". The College publishes a last day to drop and withdraw each semester.

The maximum number of credits for which students may register is 18 credit hours per semester and 12 credit hours in summer term. Exceptions may be granted by the Registrar upon the recommendation of the student's academic advisor and evidence of the requesting student's ability to manage an exceptionally heavy course load. This evidence is normally the completion of previous college courses as a full-time student and a grade point average higher than 3.25.

Delays, limits, and "holds" which impact registration result **under certain conditions, such as:**

- The maximum number of students have already registered for the course;
- The admission application has not been submitted;
- Required admissions materials have not been submitted by the end of the first term of enrollment;
- Documentation of preparation for entry in specific courses is required but not completed;
- Default in payment of educational loans, repayment owed on Title IV aid, or other payments owed to the College;
- Prerequisite education coursework not successfully completed;
- The student not meeting certain conditions resulting from lack of standards of progress; and/or
- Disciplinary action. See Student Rights and Responsibilities.

"Wait lists" result when a class is filled to capacity. If space becomes available prior to the first class session, the student will be notified through their WVNCC email account and given the chance to register themselves through their NOW account. **Waitlists for classes** is availabe until the Friday prior to the start of the class. Students registering after this time must choose from open sections.

Withdrawal from all courses, when necessary, is completed through Northern on the Web. Telephone withdrawals can be taken by the Staff Academic Advisors or Registrar only. Students are encouraged to talk with their instructors and academic advisor prior to withdrawing to determine if there are other alternatives available. Students are responsible for verifying their withdrawal. The last day to totally withdraw from the College is published in the academic calendar. Students who completed short-term courses or tested out of a course in the same semester are not eligible for a total withdrawal.

Administrative withdrawal of a student from individual courses will be implemented if a student fails to attend class during the first week of the semester/term. Disciplinary action can also result in administrative withdrawal by an instructor. See Student Rights and Responsibilities.

Administrative drop: For students with outstanding financial obligations, the College may "administratively drop" the student from classes for nonpayment. The College also reserves the right to administratively drop a student from a course for failure to meet prerequisites, failure to adhere to institutional, financial aid satisfactory academic progress or for disciplinary reasons (including Student Code of Conduct violations).

Last day to drop/withdraw from a class or the college is listed in the Academic Calendar.

Enrollment Status and Course Load

Students are enrolled once they have completed the registration process that includes satisfying all financial obligations to the College. (This is not for financial aid purposes, see financial aid section).

Full-time students are those who are currently registered for a minimum of 12 credit hours during a full semester or for a minimum of 6 credit hours for summer term. Courses below 100 level (for example ORNT 090) with course credit is counted for this determination but not for graduation, degree requirements or certain honors. The number of credit hours of specified courses required per semester to complete a certificate program in two semesters or an associate degree in four semesters is typically 15 credit hours, excluding courses below 100 level (for example ENG 097) and orientation courses.

Part-time students are those who are currently registered for less than 12 credit hours during a full semester or for less than 6 credit hours during the summer term. Part-time students will need to plan carefully their sequence of courses to assure completion of a degree or certificate.

First-time students are those who have not taken any college courses since they graduated from high school or a student who only took credits while in high school.

Student status is classified as follows:

Freshmen students are those who have completed up to 30 credit hours.

Sophomore students are those who have completed 30 or more credit hours in their program.

Catalog Home

Degree Planner	Add to Portfolio	Social Media	Print-Friendly Format	Help
Print-friendly version of degree requirements in a checklist format.	Create a personal portfolio with the My Portfolio link	Share catalog information on Facebook or Twitter.	Generate a pop-up page formatted to print neatly.	More information on how to use the catalog.

General Education

Because of its commitment to the total development of the individual, West Virginia Northern Community College requires all students enrolled in academic programs to complete a general education core curriculum. The aim of the general education component is to teach students to communicate effectively, think clearly and reasonably, make ethical judgments, develop personal values, apply knowledge constructively, and make learning a lifelong commitment. The College is committed to developing resilient, lifelong learners able to function in a complex, technologically sophisticated world.

The goals of General Education are to:

- Communicate effectively in oral and written formats.
- Employ or utilize information access and literacy skills.
- Demonstrate problem-solving and critical thinking skills.
- Employ mathematical and science literacy skills.
- Acquire a cultural, artistic and global perspective.
- Demonstrate professional and human relations skills.

Core Coursework Transfer Agreement

In accordance with the West Virginia Higher Education Policy Commission and West Virginia Council for Community and Technical Colleges Core Coursework Transfer Agreement, identified undergraduate core courses completed are transferable as general studies or course equivalent credit to all other state institutions of higher education in West Virginia for credit with the grade earned (courses are notated with an asterisks). Up to 72 hours of other courses may be accepted as transfer in specific degree programs. Academic advisors and counselors can assist with questions regarding transfer to specific colleges.

Transfer in Students

Students transferring to WVNCC are admitted through the regular admissions process and must provide academic transcripts and related documents as noted in the Admissions/Registration section of this catalog. Transfer students will be assigned an academic advisor and need to meet with the advisor to register for class. A transfer credit evaluation is done at the time the academic transcript is received; students should meet with their academic advisor to determine how those credits apply toward graduation. Transfer students must work with their academic advisor if a course wavier or course substitution is needed.

Transfer Out Students

West Virginia Northern students who complete an associate degree have many opportunities to continue on to complete a bachelor degree. WVNCC currently has articulation agreements with many colleges and universities. Since agreements are revised annually, students should meet with their Advisor concerning their program of study. Students interested in attending a West Virginia public four-year institution should also refer to the Core Coursework Transfer Agreement (above) for courses that the baccalaureate institution will accept. A transfer fair is held each spring.

Students who take classes at West Virginia Northern are advised to discuss their courses with the college to which they are transferring. The decision of transfer credit, minimum grade required and credit hour articulation are determined by the receiving college.

General Education Core Requirements

- Associate in Arts
- Associate in Science
- Associate in Applied Science
- Certificate of Applied Science

Academic Programs A-Z

Accounting/Business Studies, A.A.S.

Major Code: 120

This option is designed to meet the needs of modern business and industry for accounting professionals. The curriculum will help students develop habits of critical, logical thinking while they learn to record, report and interpret data using basic accounting as well as electronic procedures. Computerized software and accounting applications will be emphasized.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

Graduates of this program can expect to obtain employment in positions such as accounts receivable, accounts payable, accounting clerk, payroll clerk, billing manager, and customer service representatives.

Graduates can expect to be employed in medical and banking facilities, industrial and manufacturing plants, communication businesses, and various small businesses.

CIP Code: 520101

First Year

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Or

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Spring Semester (15 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

ACC 205 - Cost & Managerial Accounting

3 Credit(s)
This course is designed for accounting and business majors and covers cost and managerial theories, concepts and applications. Job order costing, process costing, activity based costing, cost-volume-profit analysis, master budgets, flexible budgets, cost allocation, short-term business decisions and capital investment decisions are covered in detail.

Prerequisite(s): ACC 123.

ACC 224 - Intermediate Accounting I

3 Credit(s)
This course provides an in-depth study of accounting principles. Topics include, but are not limited to, financial reporting; the conceptual framework of accounting; the accounting cycle; preparation and interpretation of the income statement, balance sheet, and notes to the financial statements; financial statement analysis; time value of money concepts; short-term and long-term operating assets.

Prerequisite(s): ACC 123.

BA 223 - Business Finance

3 Credit(s)
This course examines business structures, governance, and management; financing businesses; financial planning and decision-making; interpreting financial statements; using financial ratios to measure valuation. The course will also explore business investments; capital formation; financial institutions. Students will also discuss the importance of ethics and social responsibility in corporate life.

Prerequisite(s): ACC 122
Corequisite(s): None
Pre/Corequisite(s): None

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

MGT 250 - Principles of Management

3 Credit(s)
This course focuses on the daily operations and duties of the managers with regard to the stakeholders, finances and other motivational resources. Problem solving, decision making, communicating, motivating and delegating skills are emphasized using the "real world" approaches in conjunction with the standard management practices. Students are taught alternatives to situations and the procedure to evaluate and derive these alternatives.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

ACC 222 - Computerized Accounting

3 Credit(s)
This course is an introduction to a cloud-based financial system. Students will utilize the system to complete the accounting cycle for both a service and a merchandise business. Topics include banking, accounts payable, accounts receivable, inventory, payroll, sales tax reporting, income taxes, and financial statements. This class requires a computer, internet access, as well as extensive computer work.

Pre/Corequisite(s): ACC 123 or permission of instructor.

ACC 225 - Intermediate Accounting II

3 Credit(s)
This course is a continuation of ACC 224. Topics include but are not limited to, accounting for asset impairments; operating liabilities; financing liabilities; shareholder equity; comprehensive income; investments in debt and equity securities; accounting for income taxes, leases, and pensions; preparation and interpretation of the statement of cash flows.

Prerequisite(s): ACC 224.

ACC 240 - Business Taxation

3 Credit(s)
This course emphasizes income tax applications and principles of taxation. It provides detailed discussions on recognizing income, employee compensation, operating expenses, property acquisitions and dispositions, along with tax-deferred requirements of proprietorships, partnerships, and corporations. Tax planning, wealth building, and regulatory record-keeping requirements will be addressed.

Prerequisite(s): ACC 123.

ACC 250 - Accounting Capstone

3 Credit(s)
Students in this course will acquire comprehensive knowledge in bookkeeping, covering a range of topics such as adjusting entries, rectifying accounting errors, payroll management, depreciation, inventory handling, and internal controls. Additionally, students will be equipped to take a national certification exam facilitated by the American Institute of Professional Bookkeepers. Successful completion of the certification exam is optional and not a requirement of the course.

Prerequisite(s): ACC 224

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60/61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Advanced Manufacturing and Automation, A.A.S.

Major Code: 244

In the Advanced Manufacturing and Automation A.A.S. program, students develop practical, hands-on skills focused on the operation, programming, and implementation of advanced manufacturing technologies being used in manufacturing today.

The curriculum integrates manufacturing processes and technologies used in contemporary production facilities. Students receive instruction in industrial robotics, PLC-based automation (Programmable Logic Controllers), CNC machining and programming (Computer Numerical Control), process control, quality control, metrology, and smart manufacturing systems. Coursework is designed to develop an understanding of how automated equipment, production processes, and manufacturing technologies operate as integrated systems.

All technical courses include a required hands-on laboratory component that allows students to apply theory to real-world manufacturing systems. Students develop practical skills in programming, monitoring, and improving automated production processes while adhering to established safety, quality, and industry standards. Instruction also emphasizes documentation, data collection, process monitoring, teamwork, and continuous improvement practices.

Additionally upon completion, graduates will:

1. Demonstrate safe work practices appropriate for commercial and industrial manufacturing environments.

2. Apply mechanical and electrical principles to the operation of advanced manufacturing systems, including hydraulics, pneumatics, electrical systems, Programmable Logic Controllers (PLCs), robotics, Computer Numerical Control (CNC) machining, quality systems, and alternative energy technologies.

3. Program automated manufacturing systems using PLCs, industrial robotics, and CNC technologies to support production processes.

4. Configure automated and CNC-based manufacturing systems in accordance with established safety and quality standards.

5. Evaluate manufacturing processes using precision measurement, inspection techniques, and quality documentation.

6. Interpret technical information, including prints, schematics, circuit diagrams, ladder logic, CNC programs, and technical manuals used in manufacturing environments.

Graduates of the program are prepared for employment in advanced manufacturing roles supporting automated production, robotics systems, PLC-controlled processes, CNC manufacturing operations, quality and process improvement, and emerging manufacturing technologies.

Employment opportunities for graduates remain strong as manufacturing industries continue to modernize and face workforce shortages driven by retirements and increased reliance on automation, robotics, CNC machining, quality systems, and sustainable energy solutions. Graduates may find employment in steel, chemical processing, power generation, renewable energy, advanced manufacturing, fabrication, and related industries.

Common Job Titles Include: Advanced Manufacturing Technician, Automation Technician, Robotics Technician, PLC / Automation Technician, Manufacturing Engineering Technician, Mechatronics Technician, CNC Manufacturing Technician, Quality Technician, Quality Control Technician, Process Technician, Product Testing Technician, Test Technician.

CIP Code: 150406

First Year

Fall Semester (14 Credits)

AMT 101 - Modern Manufacturing: Processes and Robotics

3 Credit(s)
This course introduces the fundamentals of modern manufacturing with a focus on automation and robotics. Students explore basic manufacturing concepts, system components, and the role of mechanical, electrical, and pneumatic technologies in automated systems. The course emphasizes introductory control logic, system operation, and basic troubleshooting. Students also develop an understanding of programmable logic controllers (PLCs), safe work practices, and teamwork in manufacturing environments.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 105 - Intro Computer Aided Drafting

3 Credit(s)
Students will learn to create engineering drawings with a computer. Students take field measurements, perform hands on Computer Aided Drafting (CAD) entry, and publish the final drawings needed to communicate to technical professionals. As an introduction to a variety of drawing skills, this course is excellent for the beginning CAD student.

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

AMT 110 - Computer Numerical Control (CNC) Manufacturing

3 Credit(s)
This course introduces the fundamentals of CNC machining and manufacturing processes. Students explore basic CNC equipment, machine components, tooling, and introductory programming concepts. The course emphasizes CNC operation, setup procedures, and interpretation of G-code and conversational programming. Students also develop skills in measurement, safety, and basic machining practices used in modern manufacturing environments.

Prerequisite(s): None

Corequisite(s): None
Pre/Corequisite(s): None

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

Or

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MEC 140 - Programmable Controllers I

3 Credit(s)
The course introduces the basic theory, operation and programming of programmable logic controllers. Programming examples, set-up examples and troubleshooting are demonstrated. Also included is PLC timing, counting, and arithmetic and logic sequences.

Prerequisite(s): APT 155
Pre/Corequisite(s): APT 103 and APT 104 with a minimum grade of "C" OR MSHA 80 hour Apprentice Miner Class.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 101 - Interpersonal Communication

3 Credit(s)

This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (17 Credits)

AMT 201 - Advanced Manufacturing & Automation

3 Credit(s)

This course introduces advanced manufacturing and automation systems with an emphasis on integrated CNC and robotics applications. Students explore system integration, Industry 4.0 concepts, and the interaction between mechanical, electrical, and control components in automated environments. The course emphasizes CNC and robotic programming, system operation, troubleshooting, and production workflows. Students also develop skills in safety, quality control, and teamwork within advanced manufacturing systems.

Prerequisite(s): AMT 101 , AMT 110
Corequisite(s): None
Pre/Corequisite(s): None

APT 230 - Supervisory Control and Data Acquisition

3 Credit(s)

This comprehensive course covers the essentials of SCADA and PLC systems, which are often used in close association with each other. Although the emphasis of the course will be on practical industry topics highlighting recent developments, using case studies, the "in-plant" application of SCADA, PLC technologies and various system communications fundamentals will be covered.

Prerequisite(s): MEC 140.

GSC 100 - Science in the Contemporary World

4 Credit(s)

This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

Or

PHYS 115 - Applied Physics

4 Credit(s)
This course is a study of the basic laws of physics in mechanics and electricity. Emphasis is placed upon the solution of problems relating to statics, dynamics, fluids, circuitry and electrical instruments. Problems are drawn from biology, medicine and engineering. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, satisfactory math placement or MATH 101.
Pre/Corequisite(s): ENG 101.

MEC 240 - Programmable Controllers II

3 Credit(s)
The course is a continuation of the field of industrial controls. Students will learn the principles of control systems and their application to production systems to achieve automation. Systems included in the course are stepper motors, programmable logic controllers, microprocessors, computers and feedback systems. Emphasis is placed on programmable logic controllers and the local area networks.

Prerequisite(s): MEC 140.

MEC 251 - Problem Solving & Teamwork Seminar

2 Credit(s)
The course is a capstone experience for the Advanced Manufacturing and Instrumentation Process Technology AAS programs. It is designed to reinforce and apply the knowledge and skills learned in communication, mathematics and technical courses and foster teamwork and problem solving skills. The course covers critical thinking skills, collection and analysis of data, quality control overview, teamwork and problem solving and decision making techniques and is intended to be an application of skills learned throughout the programs. Students who are able to secure an internship will complete the course objectives in a work environment instead of the classroom. Requires program director's approval.

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

Total Credits (62)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Air Conditioning, C.A.S.

Major Code: 220

This is a program designed to provide the technical knowledge and skills required of persons employed in the air conditioning industry. Students completing the program will be able to find employment in the areas of residential and commercial air conditioning, installation, maintenance and service.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

1. Demonstrate scientific and engineering principles to cooling processes.

2. Create an estimate for a customer for a residential installation.

3. Plan and design piping projects.

4. Design a proper duct system.

5. Install comfort cooling equipment.

CIP CODE: 15.0501

Fall Semester (15 credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat.

Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

RAH 102 - Refrigeration Controls

3 Credit(s)
This course is an introduction to controls of refrigeration, heating and cooling systems. Students will become familiar with the mechanical and electrical components used in air conditioning and refrigeration systems to create the desired operation of these systems. The students will be introduced to basic electrical materials and components. They will learn schematic reading, and component identification of basic electrical items. The students will also become familiar with basic electronics and simple microproccesors. This course also introduces basic motors and some controls of those motors pertaining to Refrigeration and Air Conditioning systems. The final parts of the class will give an overview of mechanical and electrical control and protection devices as well as refrigerant flow components including valves and regulating devices. This course is meant to be an introduction and will be assessed at the introductory level.

RAH 110 - HVACR Piping Skills

3 Credit(s)
This course is an introduction course to HVAC/R field. The beginning of the course will introduce the career pathways. The student will be required to do a resume and start their path in this field. The students will cover the safety aspects of this field with a focus on basic safety. The students will also focus on the customer relations in this career pathway. The next portions of this class will focus on the multitude of tools that we use in this career field. The last portion of the class will focus on the physical cutting, fitting and joining of various types of copper, steel, and plastic pipe and tubing.

Spring Semester (15 credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

RAH 209 - Forced Air Systems/Duct Layout

3 Credit(s)
This is a course in both design and fabrication of forced air systems. Students will calculate heating and cooling loads and use that information to design properly sized duct systems. Students will fabricate and install sheet metal duct systems and learn to use sheet metal tools to create duct and fittings.

Prerequisite(s): RAH 100

RAH 235 - Comfort Cooling

3 Credit(s)
The course introduces and reinforces topics in residential and commercial air conditioning. Topics to be covered will include types of air conditioners, split system air conditioners, commercial system overview, humidity control, thermostats, basics of energy management and conservation, as well as cooling loads for a structure. This course has many chapters and is full of a lot of new concepts for the student.

Prerequisite(s): RAH 100

Corequisite(s): None
Pre/Corequisite(s): None

Total: 30 credits

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Applied Technology, A.A.S.

Major Code: 450

This program meets the needs of students currently in the workforce who would like to upgrade their skills and earn a degree. Students can select courses in a pathway aligned to industry careers or employers' needs. This degree would give students the flexibility to build their degree pathway to meet their career needs. The flexibility of the program would allow individuals to use previous coursework, possible Credit for Prior Learning and courses offered at convenient times to minimize the roadblocks to achieving a technical degree. Employment pathways include industrial jobs that require technical aptitude including maintenance, manufacturing, troubleshooting and operations related positions.

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Utilize technical skills required in the specific occupational area.

The Technical Studies program generally has four components:

- General education core.
- Technical core.
- Technical specialty.
- And in addition, some programs have an on-the-job training component.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP Code: 15.0699

A.A.S. General Education Requirements...15 Credits

Click here for a list of courses that will fulfill this requirement.

(must include one communication skills course and one computational skills course)

Technical Studies Requirements...6 Credits

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

Technical Specialty Electives...Minimum 27 Credits

May choose any courses from APT, MEC, PTRM, RAH, WELD

Electives...12 Credits

Can include classe from any discipline including additional technical electives.

Total Credits 60

Associate in Arts Degree, English/Humanities Concentration

Major Code: 343

This program is designed for those who expect to transfer to a college or university to study in English, literature and/or humanities. The curriculum gives students a broad background in liberal arts with an emphasis on English, literature, humanities, and social sciences.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of important literary works and writers and their relationship to historical and sociological events.
- Demonstrate a knowledge of philosophies and the expression of ideas and values through the arts.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Comunicate effectively in oral and written formats.
    - Employ or utilize information access in literacy skills.

- Demonstrate problem-solving and critical thinking skills.
- Employ mathematical and science reasoning skills.
- Acquire a cultural, artistic, and global perspective.
- Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in English, literature, secondary education, English education, or another liberal arts discipline, and may go on to earn an advanced degree.

CIP Code: 240101

First Year

Fall Semester (15/17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16/17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral,

students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirement **1 Credit(s)** #

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

* Choose from: ENG 200, ENG 201, ENG 208, ENG 210, ENG 211, ENG 225, ENG 226.

** Choose from: HIST 100, HIST 101, HIST 110 and HIST 111.

#HPE requirements can be fulfilled with HPE 100, HPE 101 or HPE 105.

Concentration and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours – it is recommended that students in this program choose their six hours of HUM core requirements from ART, ENG, MUS, or PHIL.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, General Concentration

Major Code: 100

This program is designed for those who expect to transfer to a college or university to study in a variety of liberal arts programs, including art, communication, education, English, journalism, library science, philosophy, pre-law, political science, or the social sciences. The curriculum gives students a broad background in liberal arts with an emphasis in the Liberal Arts disciplines.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of theories, concepts, and principles relevant to the liberal arts.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in a variety of liberal arts disciplines, and may go on to earn an advanced degree.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)**
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and

biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirement **1 Credit(s)** #
- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

*Choose from: Any ART, ENG, ECON, HIST, MUS, SOC, SS, PSYC, or PHIL (3 hours from 3 separate disciplines to equal 9 hours).

**Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with HPE 100, HPE 101 or HPE 105.

Concentration electives and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, History/Social Science Concentration

Major Code: 342

This program is designed for those who expect to transfer to a college or university to study in history, sociology, political science, economics or other social science disciplines. The curriculum gives students a broad background in liberal arts with an emphasis on history, humanities, and social sciences.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of theories, concepts and principles relevant to the social sciences.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program may transfer to a four-year college or university to complete a bachelor's degree in history, social science, sociology, political science, economics or another social sciences discipline.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirements **1 Credit(s)** #
- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

* Choose from: ECON 104, ECON 105, ECON 120, GEOG 205, HIST 100, HIST 101, HIST 110, HIST 111, HS 147, PSYC 208, SOC 255, SOC 276 .

**Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with any HPE 100, HPE 101 or HPE 105.

Concentration electives and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to see if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, Psychology Concentration

Major Code: 119

This program is designed for those who expect to transfer to a college or university to study psychology. The curriculum gives students a broad background in liberal arts with an emphasis on psychology, social sciences, and humanities.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of basic concepts, theories, and principles used in the field of psychology.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in psychology, and may go on to earn an advanced degree. At the bachelor's level, they may expect to become case managers or service providers in public or private agencies which provide psychological and social services. With an advanced degree, they may expect to become licensed clinical or counseling psychologists working in public or private agencies which provide psychological services.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirements **1 Credit(s)**
- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

*Choose from: HS 147, HS 150, HS 210, PSYC 155, PSYC 200, PSYC 208, PSYC 210, PSYC 218, SS 207.

** Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with any HPE 100, HPE 101 or HPE 105.

Concentration and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Science Degree

Major Code: 102

The A.S. program concentration in General Science aims to equip students with a versatile skill set encompassing theoretical understanding, hands-on experience, and effective communication in engineering, mathematics, and/or physical and earth sciences. Through a diverse range of courses including computer science, statistics, and scientific writing, students are immersed in an expansive curriculum. This ensures that upon graduation, they possess a strong

comprehension and capability to apply and convey fundamental scientific principles. The program endeavors to prepare students for careers across various scientific fields that rely on rigorous methodologies or to smoothly transition into further education at a four-year institution.

While the generic layout offers a broad foundation, students can also work with a faculty advisor to pursue specialized tracks in math, chemistry, physics, or fully remote options.

Additionally, upon completion, graduates will be able to:

1. Acquire a solid theoretical foundation in the scientific fields of interest such as engineering, mathematics and/or the physical and earth sciences through rigorous coursework and hands-on learning experiences.

2. Apply the foundational scientific principles, computer science skills, and statistics understanding to the scientific field of interest to address complex real-world challenges effectively, fostering critical thinking, experimentation, and innovation.

3. Communicate scientific concepts and findings clearly and persuasively, both orally and in writing, to diverse audiences.

4. Explore the diverse career pathways including entry-level roles in the government, industry or academy as well as transition into further education at four-year institutions.

CIP Code: 240199

First Year

Fall Semester (14 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- MATH - Mathematics Core Requirement **4 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**
- SS - Social Science Core Requirement **3 Credit(s)**
- Elective **3 Credit(s)**

Second Year

Fall Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)** *
- HUM - Humanities Core Requirement **3 Credit(s)**

- MATH - Mathematics Electives **9 Credit(s)**
  or
- SCI - Science Electives **9 Credit(s)**

Spring Semester (15 Credits)

- MATH - Mathematics Core Requirements **6 Credit(s)**
  or
- SCI - Science Core Requirements **6 Credit(s)**

- Elective **3 Credit(s)**

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- SS - Social Science Core Requirement **3 Credit(s)**

Total Credits (60)

Students must see their academic advisor to plan courses for a concentration in Science or Mathematics.

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

Refer to General Education Core Requirements for the Associate in Science Program listed below.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Science General Education Requirements

Associate in Science Degree, Biology Concentration

Some courses in this major can be customized. If you're interested in this program, be sure to speak with an advisor to explore your options. You can reach an advisor by emailing advising@wvncc.edu or calling 304-214-8810.

Major Code: 274

The Biology Concentration A.S. program is designed to empower students with a multifaceted skill set, combining theoretical knowledge, practical experience, and effective communication abilities in the field of biological sciences. Throughout the program, students engage in a variety of courses covering different levels of biological disciplines, ranging from molecular biology to organismal biology and ecology. This diverse curriculum ensures that graduates possess a solid understanding of key biological concepts and principles. The degree aims to equip students with the necessary knowledge and skills to pursue careers in biology-related fields or seamlessly transition into higher education at a four-year institution.

While the generic layout provides a broad foundation for careers in biology, students can also work with a faculty advisor to pursue specialized tracks. These tracks can facilitate a smooth transfer to a four-year institution for degree continuation or help develop the skills needed to start a biology-related business as an entrepreneur.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

1. Acquire a foundation in biological disciplines across various levels of structural organization, encompassing molecular/ cellular, organismal, and ecological aspects.

2. Utilize scientific principles to examine and address challenges in diverse biological domains.

3. Achieve students' proficiency in effectively communicating key biological concepts, both verbally and in writing, to a broad range of audiences.

4. Explore essential hands-on experiences for pursuing entry-level roles in the field of biology or progressing to higher education at the bachelor's level.

CIP Code: 240199

First Year

Fall Semester (15 Credits)

Fall Semester (15 Credits)

BIO 105 - Principals of Biology for Science Majors

4 Credit(s)
Principles of Biology is a course that introduces students to the scientific method and the fundamental concepts of biology. The primary focus of the course is cell and molecular biology. Emphasis is placed on chemistry, energy, metabolism, cell reproduction, and biotechnological applications. Selected topics of genetics and evolution are presented. Physiology is intertwined throughout the course. The course is intended for Associate of Science majors with a Biology Concentration and includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement test scores.
Pre/Corequisite(s): ENG 101

CHEM 108 - General Chemistry I

4 Credit(s)
This course is the first semester of a two-semester sequence in general college chemistry. The course is a study of the metric system, scientific mathematics, atomic structure, chemical bonding, gases, solution and chemical equilibrium. This course includes both a lecture and lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 101 or MATH 108 or MATH 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
MATH CORE (4)

Spring Semester (14 Credits)

Spring Semester (14 Credits)

CHEM 109 - General Chemistry II

4 Credit(s)
This course is a continuation of CHEM 108 with an investigation of selected metals and nonmetals, electrochemistry, nuclear chemistry, thermodynamics, ionic equilibria, acids and bases, kinetics and an introduction to organic chemistry. The laboratory includes some semi-micro qualitative analysis as well as experiments on the above topics. This course includes both a lecture and lab component.

Prerequisite(s): CHEM 108.
COMMUNICATIONS CORE (3)
Choose ENG 102 or SPCH 105
ORGANISMAL BIOLOGY (4)

CHOOSE

- BIO 112 , BIO 113 , BIO 220 , or BIO 225
  SOCIAL SCIENCE CORE (3)

Second Year

Fall Semester (17 Credits)

Fall Semester (17 Credits)

CHOOSE

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

OR

BIO 210 - Molecular and Cellular Biology

4 Credit(s)
This course outlines topics relating to cellular and molecular Biology and its applications. Students will closely examine cell and organelle structure and function, basic genetic mechanisms, physiology, and organization. Topics of the course also include cell division and growth, basic human immune function, oncogenic transformation, chromatin structure, RNA synthesis, biochemistry, and cellular communication. Students must register for a lecture and a laboratory portion of the course.

Prerequisite(s): BIO 110 and CHEM 108
Corequisite(s): None
Pre/Corequisite(s): None

ECOLOGY AND GENERAL SCIENCE TO GET 4 TOTAL CREDITS IN THIS AREA

- BIO 218 , BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , MATH 210 , MATH 279 , MATH 280 , MATH 281 , PHYS 104 , PHYS 105 , PHYS 120 , OR PHYS 121
  HUMANITIES CORE (3)
  RESTRICTIVE ELECTIVE* (6)

Spring Semester (14 Credits)

Spring Semester (14 Credits)

BIO 227 - Applied Bioscience

3 Credit(s)
The capstone course in biology equips students with a thorough grasp of the practical and global aspects across various biology fields, with a distinct emphasis on ecology. The course involves in-depth examinations of specialized research methods and approaches pertinent to biology, encompassing the utilization of research databases, the development of scientific proposals, and the nuances associated with publications. Students will apply the knowledge gained to identify the substantial challenges related to the biology field, and critically review existing solutions, or propose novel ones, culminating in presentations within professional settings.

Prerequisite(s): BIO 105

ECOLOGY AND GENERAL SCIENCE TO GET TO 8 TOTAL HOURS IN THIS AREA (5)

- BIO 218, BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , MATH 210 , MATH 279 , MATH 280 , MATH 281 , PHYS 104 , PHYS 105 , PHYS 120 , OR PHYS 121

Total Credits (60-62)

Refer to General Education Core Requirements for the Associate in Science Program listed below.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Science General Education Core Requirements

*Restrictive Elective Option

AHS 103 , BA 100 , BIO 110 , BIO 112 , BIO 113 , BIO 114 , BIO 115 , BIO 117 , BIO 204 , BIO 210 , BIO 218 , BIO 220 , BIO 225 , BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , CHEM 209 , CIT 101 , CIT 105 , CIT 107 , CIT 117 , CIT 120 , CIT 123 , CIT 142 , CIT 182 , CIT 202 ,CIT 222 , CIT 232 , CIT 235 , ECON 104 , ECON 105 , GEOG 205 HIST 100 , HIST 101 , HIST 110 , HIST 111 , MATH 210 , MATH 279 ,MATH 280 , MATH 281 , MGT 253 PHYS 104 , PHYS 105 , PHYS 120 , PHYS 121 , POLS 102 , PSYC 105 , PSYC 155 , PSYC 200 , PSYC 208 PSYC 210 , SOC 125 , SS 255

Transfer Pathways

Pre-Bachelor's in Biology / Health Sciences / Environmental Science

Designed for students planning to transfer to a four-year institution in biology, health sciences, environmental science, or related fields. This pathway emphasizes upper-level biology, chemistry, calculus, and physics coursework and mirrors the academic expectations of junior-year transfer students.

Recommended Electives:
BIO 210, BIO 218, BIO 220, BIO 225, BIO 230, CHEM 204, CHEM 207, CHEM 209, PHYS 120, PHYS 121, MATH 210, MATH 279, MATH 280, or MATH 281.

Optional Enrichment (Select as Appropriate):
BIO 112, BIO 113, GEOG 205, PSYC 200, SOC 125, POLS 102, HIST 110, HIST 111, PHYS 104, PHYS 105.

Human Biology / Health Sciences Pathway

Designed for students preparing for nursing or other health science programs. This pathway emphasizes human biology, anatomy and physiology, chemistry, psychology, and social sciences to build a strong clinical foundation while maintaining a manageable quantitative load.

Recommended Electives:
AHS 103, BIO 220, BIO 225, BIO 230, CHEM 100, CHEM 101, PSYC 105, PSYC 200, PSYC 208, PSYC 210, SOC 125, MATH 210.

Optional Enrichment:
BIO 114, BIO115, BIO117, BIO 204, BIO 115, PHYS 104, PHYS 105, PSYC 155, SS 255.

Workforce: Lab Technician / Research Assistant Pathway

Designed for students seeking immediate workforce entry into laboratory settings, biotech support roles, hospital laboratories, or research technician positions. This pathway strengthens the science foundation with applied data handling, computing, and technical skills, creating a highly employable combination.

Recommended Electives:
BIO 204, BIO 210, BIO 218, CHEM 204, CHEM 207, CIT 101, CIT 105, CIT 120, CIT 182, MATH 210.

Optional Technical Enhancement:
CIT 107, CIT 117, CIT 123, CIT 142, CIT 202, CIT 222, CIT 232, CIT 235, CIT 253.

Bio + Business Pathway

Designed for students interested in the intersection of biology, entrepreneurship, healthcare systems, or environmental enterprise. Students combine upper-level biology coursework with foundational business and economic principles to strengthen workforce readiness or prepare for transfer into business-related science fields.

Recommended Electives:
BIO 210, BIO 218, BIO 220 or BIO 225, BA 100, ECON 104, ECON 105, MGT 253, MATH 210, CIT 101, CIT 105, CIT 120, CIT 182.

Optional Enrichment:
GEOG 205, POLS 102, HIST 100, HIST 101, SS 255, CIT 202.

Board of Governors, A.A.S.

Major Code: 445

The Board of Governors Associate in Applied Science degree program is a nontraditional, degree completion opportunity at the associate degree level specifically devised for adult learners to meet occupational goals or employment requirements, establish professional credentials, or achieve personal goals. This degree program provides the opportunity for adult learners to utilize credit for prior learning experiences via licenses, certificates, military credit, and other non-collegiate sources while assuring maximum credit transferability.

By completing this degree program, adult students can establish deserved credentials, achieve a personal sense of accomplishment, and position themselves for advancement into a baccalaureate program. The Board of Governors Associate in Applied Science degree increases educational access and degree opportunities for adults who have deferred or interrupted their educational plans. Such a program provides the base of the educational ladder for adults to accomplish the first level of educational advancement as well as develop the self-confidence and incentive to move toward the completion of a baccalaureate degree. The degree program is designed to articulate with the WV Board of Regents Bachelor of Arts Degree.

Curriculum-The Board of Governors A.A.S. requires 60 credit hours that include 15 credit hours of general education in the following areas: 3 credit hours of Communication, 6 credit hours of Mathematics/Science, 3 credit hours in Social Science/Humanities, and 3 credit hours in computer literacy. The additional 45 credit hours are general electives. An optional capstone experience and an optional defined area of emphasis encompassing a broad range of content areas may be included. The structure of the degree assures flexibility in program design to meet the individual needs of adult students. The required general education courses assure the development of essential skills and competencies necessary for an associate degree level graduate. The general electives, with the opportunity for a defined area of emphasis, allow students to demonstrate and document a defined occupational proficiency. Students are encouraged to explore various options for obtaining credit for prior learning experiences including course articulation, standardized exams, challenge exams, credential validation and portfolio credit. The portfolio provides the opportunity for equating documented, college level, experiential learning to college credit. College courses successfully completed at regionally accredited institutions may be transferred into the program and applied toward the 60 credit requirement.

A student may apply any or all methods of extra-institutional credit toward the completion of the Board of Governors A.A.S. degree. Further details can be obtained by contacting the Advising Center or the Vice President for Learning.

Graduation Grade Point Average: 2.0

Residency Requirement: 12 credit hours from a WV public institution of higher education. A minimum of 6 credits required at the host institution.

Academic Forgiveness: All F's earned in College courses earned four or more years before admission to program are disregarded from the computation of the graduation grade point average. The "F" grades will not be deleted from the transcript.

Grades and Grading: Grading will follow the institution's current grading policy.

Admission Requirements: Students are eligible for admission to the program one year after graduation from high school. In case of those passing a high school equivalency examination, admission must be one year after their high school class has graduated. **A student with a regionally accredited associate level or baccalaureate degree is excluded from admission to the Board of Governors Associate in Applied Science degree program.**

Upon completion of the Board of Governors Associate in Applied Science degree program, students will meet their education goal as defined through the advising process.

CIP Code: 240102

General Education Core Requirements (15 Credits)

Associate in Applied Science General Education Requirements

Communications (3 Credits)

Mathematics/Sciences (6 Credits)

Social Sciences/Humanities (3 Credits)

Computer Literacy (3 Credits)

General Electives (45 Credits)

Includes credit hours for optional area of emphasis, portfolio course, and capstone course.

WVROCKS CLASSES: In an effort to make college more accessible to all West Virginians, the West Virginia Remote Online Collaborative Knowledge System (WVROCKS) has been designed. WVROCKS classes can be used to fulfill requirements in this program. For more information, visit the WVROCKS website at http://webhost-wp.wvnet.edu/wvrocks/. Available courses can be found on Northern's academic schedule under the subject ROCK.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Business Administration Transfer Option, A.S.

Major Code: 104

This option is designed for students preparing for transfer to a four-year institution to complete work in professional areas of accounting, banking and finance, economics, general business, management, marketing, office administration or related business professions. Students should consult with their advisor regarding requirements.

In addition to general education outcomes, students successfully completing and receiving an A.S. degree under this program will be able to:

- Implement the full accounting cycle for various types of organizations
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

In addition to the overall competencies of the Business Administration Program, upon completion of this program graduates will be able to transfer into a baccalaureate program.

CIP Code: 52.0101

First Year

Fall Semester (16 Credits)

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

- SS - Social Science Core Requirement **3 Credit(s)**

Spring Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

Second Year

Fall Semester (16 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

- HIST - History Core Requirement **3 Credit(s)** *
- SCI - Science Core Requirement (Life Science) **4 Credit(s)**

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short

speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (13 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement (Physical Science) **4 Credit(s)**

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

Total Credits (60)

In addition, students who plan to transfer to West Virginia University must have at least a 2.5 GPA and should take MATH 279. However, MATH 279 is not eligible for financial aid in this program.

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Science Program listed below.

General Education Core Requirements

Associate in Science General Education Requirements

Business Administration, Business Studies, A.A.S.

Major Code: 121

This option is designed for students who desire to explore the various opportunities available in business. The curriculum will provide a solid general business education and the necessary skills for graduates to enter the work force.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Market and promote products
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

CIP Code: 520101

First Year

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Choose

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Or

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the

text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Spring Semester (15 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

Choose

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

BA 223 - Business Finance

3 Credit(s)
This course examines business structures, governance, and management; financing businesses; financial planning and decision-making; interpreting financial statements; using financial ratios to measure valuation. The course will also explore business investments; capital formation; financial institutions. Students will also discuss the importance of ethics and social responsibility in corporate life.

Prerequisite(s): ACC 122
Corequisite(s): None
Pre/Corequisite(s): None

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

MGT 250 - Principles of Management

3 Credit(s)
This course focuses on the daily operations and duties of the managers with regard to the stakeholders, finances and other motivational resources. Problem solving, decision making, communicating, motivating and delegating skills are emphasized using the "real world" approaches in conjunction with the standard management practices. Students are taught alternatives to situations and the procedure to evaluate and derive these alternatives.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

ACC 222 - Computerized Accounting

3 Credit(s)
This course is an introduction to a cloud-based financial system. Students will utilize the system to complete the accounting cycle for both a service and a merchandise business. Topics include banking, accounts payable, accounts receivable, inventory, payroll, sales tax reporting, income taxes, and financial statements. This class requires a computer, internet access, as well as extensive computer work.

Pre/Corequisite(s): ACC 123 or permission of instructor.

BA 275 - Entrepreneurship

3 Credit(s)
This course provides students with the practical skills and experience in starting and running a business. Through a combination of hands-on activities, lectures and case-studies, students will learn the fundamentals of entrepreneurship and apply them in the real-world. Students will learn the fundamentals of entrepreneurship and apply those in their own business venture.

Prerequisite(s): BA 100

MGT 260 - Human Resource Management

3 Credit(s)
This course examines statutory and common laws governing employment in the United States. Topics covered will include employee status, at-will employment, discrimination laws, job analysis and employee selection processes, performance management, employee appraisal and discipline, compensation and benefits, wage and hour laws, and workplace safety laws. Emphasis is placed on the study of the legal framework impacting human resources practices and policies.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MKT 230 - Principles of Marketing

3 Credit(s)
This course emphasizes the operational and strategic planning aspects of marketing. Customer-driven, value-added strategies, product life cycles, product positioning, logistics, personal selling, and the Marketing Mix (product, price, place, and promotional) are examined. Concepts are applied in a required project.

Prerequisite(s): Satisfactory reading and writing placement of ENG 097.
Pre/Corequisite(s): ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Community Education 2+2 to WLU, A.A.

Transfer to West Liberty University

Major Code: 335

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in four years.

Students successfully completing this option will receive an A.A. degree from West Virginia Northern. Upon **successfully** completing the specified credit hours at West Liberty University, they will receive a B.A. degree in Community Education. The program is designed for students who have an interest in education that is not limited to "traditional teacher education" in the classroom and/or for students who are interested in the non-profit world. The program allows students to choose from 5 different majors, including: Community Arts, Disabilities Services, Outdoor Education, Sports, Recreation and Wellness, Teaching Education and Global Education. The program trains individuals to serve as educators or facilitators in a community-based setting and/or as non-profit administrators. Many of the courses in the Community Education program include field experiences in the local community and/or community based settings.

Students are encouraged to communicate and collaborate with individuals, groups, and institutions of the community on a local, national, and even international level through networking, service learning experiences, and experiential learning. Students are trained in how to serve the community through the non-formal education of children, adults, and communities through a broad set of course work.

Students successfully completing and receiving an A.A. degree under the 2+2 Community Education program with WLU should be able to:

- Demonstrate knowledge of human development, culture, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the 2+2 Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

Students are encouraged to meet with the Community Education Program Advisor at WLU early in their program of study at WVNCC to obtain information and advising concerning the program. Consult your WVNCC advisor for further information.

Note: Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. Students with questions about this should contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (14/15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are

considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

- Elective **2 Credit(s)** ++

Spring Semester (15 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- HIST - History Core Requirement **3 Credit(s)** +

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

- Restricted Elective **3 Credit(s)** ***
- Science Core Requirement **4 Credit(s)**
- Fine Arts Core Requirement **3 Credit(s)***

Spring Semester (15 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- ENG - Literature Core Requirement **3 Credit(s)** **

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to

this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60-61)

* Choose from ART 150 or MUS 105

+ Choose from: HIST 100, HIST 101, HIST 110, HIST 111

++ Can be any course (miminum 2 credit hours) that is not already required in the program.

** Choose from ENG 200, ENG 201, ENG 210, ENG 211

*** Choose from MGT 250 or MGT 253

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Arts General Education Core Requirements

Compressor Mechanic, A.A.S.

Financial aid eligibility pending

Major Code: 351

This program trains students to become Compressor Mechanics in the natural gas industry and other related industries. Students in this program will learn to troubleshoot, repair and maintain natural gas compressors.

1. Practice conventional industrial safety and communication
2. Perform compressor troubleshooting, repair, maintenance and operation
3. Explain natural gas compressor operating principles
4. Apply principles of mechanical, hydraulic, pneumatic and electrical systems to natural gas compressors and related equipment

ed equipment

CIP Code 47.0303

First Year

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

CMEC 101 Basic Engine Operations **Credits / Units:** 3

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15/16 Credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CMEC 102 Intro to Gas Compressor Maintenance **Credits / Units:** 3
Credits / Units: 3

Choose

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101

Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CMEC 103 Advanced Gas Compressor Maintenance **Credits / Units:** 3

CMEC 104 Engine Operations and Systems **Credits / Units:** 3

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

CMEC 105 Advanced Compressor Topics **Credits / Units:** 3
CMEC 106 Advanced Engine Topics **Credits / Units:** 3
CMEC 107 Compressor Package Operation & Troubleshooting **Credits / Units:** 3

MEC 235 - Instrumentation II Electrical

3 Credit(s)
Instrumentation II Electrical is an introduction to the field of process control using electrical basic devices for measuring and controlling different kinds of variables in process control. The course shall deal with areas that will explain the role of instrumentation electrically in a closed-loop control and PID functions. Students will work with analog and digital devices and programmable logic controllers (PLCs). This course will cover thermal measurement and operation of RTDs, thermistors, and thermocouples and thermometers, as well as pressure, flow, and level equipment and controls. Discussion on calibration standards, typical calibrating methods, and instrument testing will also be included.

Prerequisite(s): APT 155.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60/61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Compressor Mechanic, C.A.S.

Financial aid eligibility pending

Major Code: 350

This program trains students to become Compressor Mechanics in the natural gas industry and other related industries. Students in this program will learn to troubleshoot, repair and maintain natural gas compressors.

1. Practice conventional industrial safety and communication
2. Perform compressor troubleshooting, repair, maintenance and operation
3. Explain natural gas compressor operating principles
4. Apply principles of mechanical, hydraulic, pneumatic and electrical systems to natural gas compressors and related equipment

CIP Code 47.0303

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

CMEC 101 Basic Engine Operations **Credits / Units:** 3

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15-16 Credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CMEC 102 Intro to Gas Compressor Maint. **Credits / Units:** 3
Choose

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Total Credits (30-31)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Computer Information Technology A+ Computer Repair, C.A.S.

Major Code: 355

This program will provide students with short-term training to obtaining entry-level positions in computer and/or business offices. Graduates can obtain entry-level employment in a variety of firms that require technical computer repair and services.

Students in the Computer Information Technology, CAS A+ Computer Repair option will receive hands-on training using Windows, computer hardware upgrading, and network installation.

Upon completion of this program, graduates will be able to:

- Apply features and commands of various operating systems.
- Apply Learn the fundamentals of networks.
- Use Learn the basic operating system functions of Linux.
- Troubleshoot computer problems related to disks and files accurately.
- Perform a network installation and interface of hardware components.
- Apply Learn principles of building, repairing, and upgrading computers.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Computer repair technician, PC operator, Helpdesk technician, End-user support specialist

Wage and Employment Trends:

- $29.000 Annual (Onet, 2018)
- Certification Options: Microsoft Office Specialist, COMPTIA A+, COMPTIA N+, COMPTIA LINUX

CIP Code: 110103

Fall Semester (15 Credits)

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 202 - Computer Support - Helpdesk/Applications

3 Credit(s)
This course is designed to introduce students to real world help desk scenarios and help them understand the operations of a help desk along with roles and responsibilities of a helpdesk personnel by conducting mock drill sessions in a practical helpdesk setting which will give experience to the students and prepare them to succeed as help desk professionals, developing skills required to provide effective customer support.This course is designed for information workers who are using or will use Office 365. This course will provide students with the knowledge and skills to efficiently use Office 365 on a day-to-day basis. Students will learn how to use Outlook Online, Skype for Business, OneDrive for Business, SharePoint Online, and OneNote. At the end of this course students will be able to effectively navigate and make use of all the features of Office 365.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations, operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

MATH - Mathematics Core Requirement **3 Credits(s)**

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Computer Information Technology, Cyber Security, A.A.S.

Major Code: 339

This program is designed for those who want to work in the cyber security field of computer information technology.

In addition to General Education Outcomes, students should be able to:

1. Demonstrate competency in one of the following areas realted to fundamental security concepts, including but not limited to operating systems, hardware and software applications.

2. Demonstrate understanding of various applications of secure computing.

3. Apply secure practices in various computing environments.

4. Apply problem-solving and critical thinking skills.

5. Troubleshoot security issues in computer applications.

6. Complete an internship in the field of cyber security.

According to the Bureau of Labor Statistics, U.S. Department of Labor, employment of information security analysts is projected to grow 37 percent from 2012 to 2022, much faster than average for all occupations. Demand for information security analysts is expected to be very high as these analysts will be needed to come up with innovative solutions to prevent hackers from stealing critical information or creating havoc on computer networks. Most information security analysts can work for computer companies, consulting firms, federal or state government agencies, or business and financial companies.

University Transfer Options:

- Completion of this program offers student the option of transferring to the following college to complete a four-year degree:
    - Robert Morris University

Job Titles: Software Developer, Software Designer, Applications Specialist, Network Administrator, Network Engineer

Employment Trends:

- West Virginia projected job market increase 24% by 2024 (Onet, 2018)
- Possible Certifications: COMPTIA N+, COMPTIA LINUX, Microsoft Office Specialist, CISCO CCENT

CIP Code: 111003

First Year

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and

successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 275 - Microsoft Server Administration and Virtualization

3 Credit(s)
This course is deigned to introduce students to virtualization concepts with hands-on exercises related to windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by hands-on exercises. It also introduces them to hypervisors, Microsoft Azure, active directory, setting up user groups, rights, printer sharing, and other items related to organizational and security issues.

Pre/Corequisite(s): CIT 142 or Instructors Permission

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

CIT 106 - Principles of Ethical Hacking

3 Credit(s)
This course is designed to introduce concepts of hacking computers, networks, and web applications from the perspective of a hacker with hands on labs and exercises to truly experience the emerging threats of cybersecurity and their mitigations. Includes the introduction for various cyber security trends and pathways such as network security, application security and policy management.

Prerequisite(s): CIT 142 and CIT 220
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 235 - Introduction to Cloud Computing

3 Credit(s)
This course covers Cloud Computing implementation, security models, and associated challenges that go into the implementation and support of High Performance Computing and Big Data support capabilities on the Cloud. Through hand-on assignments and projects, students will learn how to configure and program IaaS (Infrastructure as a Service) services. They will also learn how to develop Cloud-based software applications on top of various Cloud platforms, how to integrate application-level services built on heterogeneous Cloud platforms, and how to leverage SaaS (Software as a Service) and BPaaS (Business Process as a Service) solutions to build comprehensive end-to-end business solutions on the Cloud.

CIT 245 - Information Security Fundamentals

3 Credit(s)
This course is designed to challenge students to understand hackers' mentality to perform network vulnerability and risk assessments to implement processes to protect an organization's assets against danger, damage, loss, and criminal activity. This course also introduces students to network infrastructure threats, access and account management, cryptography and PKI, and virtualization cloud security concepts.

Prerequisite(s): CIT 142 and CIT 220
Pre/Corequisite(s): CIT 106 or CIT 184

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations, operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

CIT 219 - Secure Computer User

3 Credit(s)
This course is designed to provide students with necessary knowledge and skills to protect their information assets. This course will help students identify and mitigate various information technology security threats such as computer and network security threats, identity theft, credit card fraud, online banking phishing scams, virus and backdoors, emails hoaxes, social engineering, IoT and Remote working threats.

Prerequisite(s): CIT 123
Corequisite(s): None
Pre/Corequisite(s): CIT 220

CIT 255 - Cybersecurity Network Defense

3 Credit(s)
The course is designed to introduces students to cybersecurity defense strategies emphasizing on network security and network penetration testing. This course will cover basics of network security threat intelligence, information gathering, vulnerability management, infrastructure security and incident response.

Pre/Corequisite(s): CIT 245 or CIT 184.

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the

areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Computer Information Technology, Cyber Support, A.A.S.

Major Code: 356

This program provides students with the technical skills required for Microsoft application certification exams and end user support.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

1. Demonstrate competency in one of the following areas related to fundamental security concepts, including but not limited to operating systems, hardware and software applications.

2. Demonstrate competency in various business applications of computing including and not limited to end-user applications.

3. Apply problem-solving and critical thinking skills.

4. Troubleshoot issues in computer applications.

5. Complete an internship in the field of information technology.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Application Developer, Computer Consultant, Information Technology Analyst, Telecommunications Analyst, Help Desk Engineer, Help Desk Specialist

Wage and Employment Trends:

- $29,000 Annual (Onet, 2018)
- Faster than Average Projected Growth (9% 2014-2024) (Onet, 2018)
- Certification Options: Microsoft Office Specialist, COMPTIA A+, COMPTIA LINUX

CIP Code: 110103

First Year

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15-16 Credits)

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

CIT 112 - Access

3 Credit(s)
This course comprehensively covers all of Microsoft Access. Students will create, use, manage, and maintain databases. This course will also prepare students for the Microsoft Office Specialist ACCESS (730) test.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 275 - Microsoft Server Administration and Virtualization

3 Credit(s)
This course is deigned to introduce students to virtualization concepts with hands-on exercises related to windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by hands-on exercises. It also introduces them to hypervisors, Microsoft Azure, active directory, setting up user groups, rights, printer sharing, and other items related to organizational and security issues.

Pre/Corequisite(s): CIT 142 or Instructors Permission
Math Core Requirement 3-4 Credits*

Second Year

Fall Semester (15 Credits)

CIT 165 - PowerPoint with AI

3 Credit(s)
This course prepares students to design and deliver polished, visually effective business and technology focused presentations using Microsoft PowerPoint, with an emphasis on integrating AI-driven tools to support the presentations. Students will develop the skills needed to create, format, and enhance presentation materials including generating and refining AI-assisted content for small business environments. Topics covered include creating, formatting, and designing PowerPoint presentations manually and with AI assistance.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

CIT 202 - Computer Support - Helpdesk/Applications

3 Credit(s)
This course is designed to introduce students to real world help desk scenarios and help them understand the operations of a help desk along with roles and responsibilities of a helpdesk personnel by conducting mock drill sessions in a practical helpdesk setting which will give experience to the students and prepare them to succeed as help desk professionals, developing skills required to provide effective customer support.This course is designed for information workers who are using or will use Office 365. This course will provide students with the knowledge and skills to efficiently use Office 365 on a day-to-day basis. Students will learn how to use Outlook Online, Skype for Business, OneDrive for Business, SharePoint Online, and OneNote. At the end of this course students will be able to effectively navigate and make use of all the features of Office 365.

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the

areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

CIT 219 - Secure Computer User

3 Credit(s)
This course is designed to provide students with necessary knowledge and skills to protect their information assets. This course will help students identify and mitigate various information technology security threats such as computer and network security threats, identity theft, credit card fraud, online banking phishing scams, virus and backdoors, emails hoaxes, social engineering, IoT and Remote working threats.

Prerequisite(s): CIT 123
Corequisite(s): None
Pre/Corequisite(s): CIT 220

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

CIT Elective excluding CIT 117 **Credits / Units:** 3

Total Credits (60-61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

*General Education Core Requirements

Associate in Applied Science General Education Requirements

Computer Information Technology, Microsoft Applications, C.A.S.

Major Code: 360

This program will provide students with short-term training to obtain entry-level positions in computer and/or business offices.

Students in the Microsoft Applications, C.A.S, will receive hands-on training using Excel, PowerPoint, Word and Publisher. Occupations available for students completing program requirements include the following: software applications user, help desk technician and end user support. Graduates can obtain entry-level employment in a variety of firms that require an expertise in using Microsoft applications. The program also prepares the students for the MOS Certification exams.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

In addition to General Education Outcomes, transfer students should be able to:

- Use and apply features and commands of various operating systems.
- Develop complex spreadsheets with Excel.
- Develop presentations with PowerPoint.
- Develop documents in Publisher.
- Develop documents in Word.
- Troubleshoot Microsoft Office problems.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Applications Developer, Computer Consultant, Information Technology, Telecommunications Analyst, Help Desk

Wage and Employment Trends:

- $29,000 Annual (Onet, 2018)
- Certification Options: Microsoft Office Specialist

CIP Code: 110103

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 165 - PowerPoint with AI

3 Credit(s)
This course prepares students to design and deliver polished, visually effective business and technology focused presentations using Microsoft PowerPoint, with an emphasis on integrating AI-driven tools to support the presentations. Students will develop the skills needed to create, format, and enhance presentation materials including generating and refining AI-assisted content for small business environments. Topics covered include creating, formatting, and designing PowerPoint presentations manually and with AI assistance.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15 Credits)

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

CIT 112 - Access

3 Credit(s)
This course comprehensively covers all of Microsoft Access. Students will create, use, manage, and maintain databases. This course will also prepare students for the Microsoft Office Specialist ACCESS (730) test.

CIT Elective (any eligible CIT class except CIT 117) **Credits / Units:** 3

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Math - Mathematics Core Requirements **Credits / Units:** 3

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met

this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Computer Information Technology, Software Engineering, A.A.S.

Major Code: 179

This program prepares students with practical skills and knowledge for entry-level positions within the software engineering profession. Software engineering relates to the concept, design, implementation, deployment and maintenance of software. The program seeks to provide the theoretical fundamentals of software development coupled with an understanding and application of practical aspects and competencies required by industry. The program is designed to support innovation through the application of software engineering principles to solve business problems.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Develop a broad foundation of various programming languages and platforms.
- Provide students with an understanding of software engineering principles.
- Instruct students in conceptualization, proposal development, database design, interface design, system architecture, documentation, presentation, and delivery.
- Develop, within students, an appreciation for the importance of excellent business and communication skills in a typical software engineering environment.
- Assist graduates in obtaining entry-level positions in the field of software engineering.

Graduates may work in software design, testing, maintenance and development, database administration, and web development. Graduates may also qualify for entry-level management positions in a technical capacity.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following college to complete a four-year degree:
    - Robert Morris University

Job Titles: Computer Consultant, Information Technology Analyst, Software Architect, Software Developer, Software Engineer, Technical Consultant.

Wage and Employment Trends:

- $41,000-$64,000 Annual (Onet, 2018)
- Much Faster than Average Projected Job Growth (12%) (Onet, 2018)
- Certification Option: Microsoft Office Specialist

CIP Code: 110103

First Year

Fall Semester (15 Credits)

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 187 - HTML/CSS

3 Credit(s)
This course introduces the student to hypertext markup language (HTML) and the more current XHTML standards to create and modify Web pages. Uploading Web pages to the Internet, linking to other Web sites, graphics, tables, and forms are included in Web page designs. Emphasis is placed on good Web page design that is compatible with different browsers, screen resolutions, and user configurations.

CIT 232 - Introduction to Programming Logic

3 Credit(s)
This course introduces students to a high level programming language and the logic and control structures that are the foundations of computer programming. Variables, assignment, subroutines, data types and basic object oriented programming will be explored and used to develop simple applications.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 176 - Visual Basic Programming

3 Credit(s)
This course acquaints students with the design, development, testing, and documentation of Visual Basic programs. This course introduces students to the correct ways to design and write programs using Visual Basic. The goal of this course is to provide a rigorous and comprehensive course in computer programming for students with some programming experience.

Prerequisite(s): CIT 232 or permission of the instructor.
Pre/Corequisite(s): CIT 185 or permission of the instructor.

CIT 185 - Database Design and SQL

3 Credit(s)
This course covers features of a Database Management System (DBMS) and will focus on design principles, relationships, normalization, and SQL (Structured Query Language) queries for a moderately complex small-scale business application. SQL is utilized to create, modify, and query multi-table database(s) and produce output.

Prerequisite(s): N/A
Corequisite(s): N/A
Pre/Corequisite(s): N/A

CIT 215 - JavaScript

3 Credit(s)
This course will enable students to develop interactive websites using JavaScript, with an emphasis upon running processes on client workstations. Various assignments enhance the student's ability in JavaScript, including interaction with the browser, regular expressions and form validation. Students will also compare various client and server side scripting languages.

Prerequisite(s): CIT 187 or permission of instructor.

CIT 272 - Object Oriented Programming/Data Structures

3 Credit(s)
This course builds on the skills obtained in the C++ and Java courses in an object oriented programming environment. Advanced pointers, data structures, file I/O, and other techniques are used to develop sophisticated application programs in Java.

Prerequisite(s): CIT 232 or permission of the instructor.
Math Core Requirement 3 Credits ##

Second Year

Fall Semester (15 Credits)

CIT 218 - Microcontrollers and IoT

3 Credit(s)
This course will enable students to develop projects using microcontrollers and small board computing platforms, such as Arduino, Raspberry Pi, and ESP32. This will include DC circuit basics, analog and digital sensors and output devices, and basic robotics. Students will also develop skills needed to create Internet of Things (IoT) devices and services that involve these projects.

Prerequisite(s): CIT 272 or CIT 215
Corequisite(s): None
Pre/Corequisite(s): None

CIT 237 - Advanced Database Programming

3 Credit(s)
This course covers features of a network based DBMS and will focus on design principles, relationships, normalization, and SQL (Structured Query Language) queries for a moderately complex small scale business application. SQL is utilized to create, modify, and query multi-table database(s) and produce output. This course will also introduce the student to data control, data environment, and other objects related to database access and updating. It will focus on program statements and techniques to manipulate database information. It will include interactive processing and batch in an integrated business application with data validation. Emphasis will be placed on Visual BASIC, C#, or Java programming that can be utilized without limitation to a particular database management system. The course will utilize team and individual programming projects.

Prerequisite(s): CIT 176 and CIT 185 or permission of instructor.

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

CIT 256 - Collaborative Software Development

3 Credit(s)
This course prepares students to develop software projects in a collaborative environment. While the course focuses primarily on the use of version control systems, it also covers the challenges of collaboration and how to mitigate them, the use of good communication skills and channels, and how to use a Kanban board to manage and assign project tasks.

Prerequisite(s): CIT 272 or CIT 176
Corequisite(s): N/A
Pre/Corequisite(s): N/A

CIT Elective*

Spring Semester (15 Credits)

CIT 217 - Game Development Fundamentals

3 Credit(s)
This course builds on the skills from multiple earlier classes, including Object Oriented Programming, Data Structures and Collaborative Software Development, to develop fundamental skills with game development. The course will cover sprites and animation, collision detection and resolution, drawing maps, state machines, basic AI and the use of game development frameworks and engines.

Prerequisite(s): CIT 256
Corequisite(s): None
Pre/Corequisite(s): None

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60)

* Choose from any other CIT course or MGT 250, MGT 253

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Criminal Justice, A.A.S.

Major Code: 234

The Criminal Justice program is designed for students interested in pursuing a career in the legal professions such as law enforcement, corrections and private investigation. Students will learn how these professions integrate into a system of criminal justice. This program is offered in two formats allowing students to choose from the traditional on-campus experience or a completely online experience.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Analyze the impact of substantive and procedural case law on law enforcement, juvenile justice, and the correctional system.
- Employ information access and literacy skills in the research of Criminal Justice topics.
- Describe the internal operations of agencies on the local, state, and federal levels that comprise our nation's criminal justice system.
- Identify basic law enforcement investigative techniques, crime scene preservation and analysis techniques.
- Explain the development and implementation of Homeland Security and how this agency identifies and counteracts international threats and terrorism.
- Examine the current events and issues that law enforcement and the criminal justice system must deal with in today's society.
- Describe the rights of the accused from arrest to post conviction appeals, including how relevant agencies determine a balance between individual rights and social order.

Currently many graduates of the Criminal Justice program are employed in the West Virginia State Police and Ohio State Highway Patrol agencies as well as in various law enforcement agencies in the Upper Ohio Valley. Many graduates are working in the correctional field as correctional officers, adult and juvenile case workers and as treatment specialists both in the public and private domain.

Future employment opportunities, according to experts in the field of criminal justice, will continue to grow at the federal, state and local levels. New positions include computer analysts specializing in internet crimes, forensic technicians and criminal profilers.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following colleges to complete a four-year degree in Crinimal Justice:

  Fairmont State University

  Franciscan University of Steubenville

  Ohio University

  Robert Morris University

  Salem University

  West Liberty University

  WVU - Potomac State College

CIP Code: 430107

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and

general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CRJ 104 - Introduction to Criminal Justice Systems

3 Credit(s)
This course is a detailed examination of the criminal justice system of the United States. The roles of the police, courts and correctional systems are presented. An analysis of the agencies involved in the administration of criminal justice is also included.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Restricted Elective **3 Credit(s)** ##

Spring Semester (15 Credits)

CRJ 245 - Introduction to Juvenile Justice System

3 Credit(s)
This course examines the cause, conduct and extent of juvenile delinquency and the current methods of prevention, treatment and correction.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on

evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s)** ##

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
or

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

CRJ 201 - Introduction to Corrections

3 Credit(s)
This course is an in-depth examination of the role corrections plays within the criminal justice system. Prison types, the role of classification, care and treatment issues and constitutional requirements are examined. Additionally, the role of probation and parole and how sentencing alternatives impact on the system is addressed.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CRJ 220 - Criminal Law

3 Credit(s)
This course is an introduction to the law of crimes; circumstantial, direct and real evidence; the hearsay rule; the elements of proof; classification of statutory crimes; rights of the convicted; court procedure and techniques of testifying.

Prerequisite(s): CRJ 104

CRJ 225 - Terrorism and Homeland Security

3 Credit(s)
This course will focus upon the social, political, economic and philosophical reasons for the development and spread of terrorism throughout the world, and examines potential dangers inherent in these practices and possible counter measures to combat terrorism. Special attention will be given to domestic and international acts of terror that affect American citizens, interests and policies. Students will also gain an understanding of the National Strategy which focuses on homeland security, such as intelligence & warning systems, border and transportation security, domestic terrorism, and emergency preparedness and response to prevent terrorist attacks, reduce vulnerability, minimize damage, and provide for recovery from terrorist attacks.

Prerequisite(s): CRJ 104.

CRJ 276 - Criminology

3 Credit(s)
This course is a survey of major theories of criminology, the criminal justice system, and of major correctional treatment methods.

Prerequisite(s): CRJ 104 and SOC 125

Spring Semester (15/16 Credits)

CRJ 221 - Criminal Procedure

3 Credit(s)
This course is a continuation of CRJ 220 - Criminal Law and will provide an overview of American Criminal Law, focusing on Laws of Procedural Due Process on federal and state levels, and various facets of the criminal procedure process.

Prerequisite(s): CRJ 104 and CRJ 220.

CRJ 235 - Field Service

3 Credit(s)
This course includes a 120 contact hour onsite field experience (approximately eight hours per week for 15 weeks). Through an appropriate agency for individual students' fields of interest, students will perform the actual duties assigned. Students will also conduct independent study in the area of their choice. Hours are arranged with the appropriate supervisor.

Prerequisite(s): CRJ 104, CRJ 201, and CRJ 245.

CRJ 251 - Ethics in Criminal Justice

3 Credit(s)
This course explores the ethical issues, dilemmas, and decision-making processes that arise within the criminal justice system. Students will examine ethical theories and principles as they apply to law enforcement, the courts, corrections, and related fields. Topics include the use of discretion, professional conduct, corruption, accountability, due process, human rights, and the balance between public safety and individual liberties.

Prerequisite(s): CRJ 104
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 116 - Mathematics Appreciation

3 Credit(s)
This course examines Mathematics in a wide range of settings. One aspect of the course considers a cultural and historic overview. Another aspect considers the breadth of modern Mathematics. Emphasis is placed on both utility, computation, and applications and also on aesthetic appreciation, including puzzles and games. Emphasis is placed on learning to see how ideas are expressed mathematically.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG ENG 115
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (61-62)

Choose from: CRJ 110, CRJ 115, CRJ 205, CRJ 209, CRJ 246, CRJ 230

IMPORTANT TRANSFER INFORMATION: For students who plan on transferring, MATH 108 or MATH 210 are recommended. Contact your advisor for specific requirements.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Culinary Arts, A.A.S.

Major Code: 322

The Culinary Arts Program, accredited by the American Culinary Federation, is designed to meet the demands for well-trained food service personnel with an emphasis on development of basic techniques of commercial food preparation. Exposure to many facets of food preparation as well as nutrition, sanitation, menu planning, and personnel management used by the professional culinarian are included in the program. Hands-on experience is a high priority in the laboratory

classes, building a solid foundation of basic cooking skills. Upon completion of the program students can obtain employment as cook, baker, sous chef, kitchen manager or supervisor, lead cook in restaurants, hotels, catering operations and other food service organizations. The program provides students with the opportunity to meet the requirements for certification by the American Culinary Federation.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Prepare all types of meals using safe, sanitary and nutritional skills
- Use correct knife skills, kitchen equipment and kitchen related appliances
- Demonstrate customer service techniques
- Demonstrate skills in financial planning, menu planning
- Explain key laws and regulations for food service establishments
- Prepare for the entry level of certification in the American Culinary Federation

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Uniforms are required for CART 131, CART 145, CART 151, CART 159, CART 231, CART 240 and CART 241.

Job Titles: Back Line Cook, Banquet Cook, Breakfast Cook, Cook, Fry Cook, Grill Cook, Line Cook, Pastry Baker, Prep Cook

Wage and Employment Trends:

- $23,900 Average Annual Salary (2020) in WV
- $11.49 average per hour in WV
- 1180 Projected job openings between in WV (2018-2028)
- 237,200 Projected job openings in the US (2019-2029)

Wage and employment trends based on Department of Labor and ONET statistics.

CIP Code: 120503

First Year

Fall Semester (17 Credits)

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 124 - General Nutrition

3 Credit(s)
This is an introductory course in nutrition. Its topics include definition of the nutrients and will address nutrient requirements and the use of RDA charts. The course includes the sources of nutrients and the effect of nutrient deficiencies. Digestion, absorption and weight control are a part of the course.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 131 - Bakeshop

3 Credit(s)
This course is designed for the beginner baker. Topics include baking principles, ingredient function and handling, weights and measures, terminology and formula procedures. Also included are the use and care of bakeshop tools and equipment. Production includes yeast products, cakes, cookies, pies and assorted desserts. Students must register for a lecture and laboratory section. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 145 - Elements of Commercial Food Preparation and Service

3 Credit(s)
This course is basic cooking skills and front of the house dining services. The course will cover the cooking of fundamental menu items to include breakfast, lunch and dinner items. Both à la carte and buffet preparation will be included in the cooking methods in this course. Included in the course are methods of table service, preparation of the dining room for service, personal hygiene, and sanitation and customer relations. Students actively perform standard American Service on a rotating basis. The student will be exposed to cooking and service to customers each week. The student must have a server's uniform and a chef's uniform for this class. This course is to be offered the second nine week period in the first semester and is a continuation of CART 159 - Basic Food Science.

Pre/Corequisite(s): CART 121, CART 159 or permission of instructor.

CART 159 - Basic Food Science

3 Credit(s)
This course is an introduction to basic cooking skills, knife skills and the chemistry of foods. Content includes sandwiches, salad dressings, hors d'oeuvres, stocks, soups, vegetables, egg cookery and beverages. This course also covers basic food decorations and garnishes. Emphasis is on identification, selection, use and handling of ingredients. The course covers the cooking skills and methods used for the successful preparation of fundamental menu items - breakfast, lunch, and dinner. Emphasis is on preparation and handling. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Spring Semester (16 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 151 - Meat, Poultry and Seafood Preparation

3 Credit(s)
This course covers government standards for inspection and grading of meats, poultry and seafood. Emphasis is on the identification of meats - both primal and retail - and on the selection of the proper cooking method for varying cuts/types of meat, poultry and seafood. Production will include the preparation of menu items containing meat, poultry and seafood. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121 and CART 159 or permission of instructor.

CART 175 - Advanced Food Science

3 Credit(s)
This course is an expansion of CART 159. The emphasis is on the preparation and presentation of the classical techniques used in the culinary kitchen. The chemistry of foods and their origins will be further explored in this course. This course will cover such areas as vegetable reactions to different cooking techniques and mediums, the classical production of sauces and the uses of herbs and spices. The production of fresh made pastas, corn products, rice and other grains will be explored in this course. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 159.

CART 251 - Culinary Internship

4 Credit(s)
This course is a field experience with practical and written examinations for certification by the American Culinary Federation. The field experience will require the completion of 300 hours of supervised internship experience that is completed in an approved food service facility. Work evaluations are completed by the supervisor and an end-of-the-semester evaluation is completed jointly by the supervisors and faculty member during an on-site visit. Students will attend scheduled seminars and submit written reports, work logs of their experience, and recipe reports as part of the portfolio.

Prerequisite(s): CART 145.
Pre/Corequisite(s): CART 151 and CART 175.

- MATH - Math Core Requirement **3 Credit(s)**

Second Year

Fall Semester (15 Credits)

CART 223 - Personnel Supervision for the Hospitality Industry

3 Credit(s)
This course is a study of the supervision of personnel in the hospitality industry. Emphasis is on the role of the first-line supervisor. Topics include dealing with the time demands, people, pace, attitudes, and special problems inherent in the hospitality industry. This is a course that satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101

CART 235 - American Cuisines

3 Credit(s)
This course is designed to research the varied cuisines of the American people. This course will cover all the areas from the Pacific North West to the Deep South and the North Atlantic coast. This course is based around the premise that American cuisine, which has won numerous awards, is worthy of study. Emphasis will be on the similarities in production and service systems. Application of skills to develop, organize and build a portfolio of recipe strategies and production systems. Students are required to have a complete chef's uniform for this class. This course is only offered the third semester a student is in the program.

Prerequisite(s): CART 175

CART 240 - Garde Manger

3 Credit(s)
Students will be introduced to modern and traditional techniques in preparation and presentation of cold food items for the buffet and decorative culinary showpieces. Students will prepare cold entrees, patés and hors d'oeurves, cold sauces and charcuterie and ice carvings. Students plan, organize and set up buffets. This course also concentrates on the practical techniques of showpieces/centerpieces. Students are required to have complete chef's uniform for this class. Students must register for a lecture and laboratory section.

Prerequisite(s): CART 121, CART 131, CART 145, CART 159 and CART 175.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- SS - SS Core Requirement **3 Credit(s)**

Spring Semester (13 Credits)

CART 231 - Pastry Preparation

3 Credit(s)
This course is a continuation of CART 131. It covers advanced baking and classic pastry preparations. Topics addressed include ingredient handling, terminology, formula procedures and a brief history of classic pastry preparations. . Laboratory production includes laminated doughs, plated desserts, chocolate and confections, meringues as well as specialty cakes and desserts. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 131 and CART 121.

CART 241 - Classical Cuisines

3 Credit(s)
This course is a study of classical cuisines - to include French, German, Asian, Italian, and Spanish. The course is designed to include a history and development of each cuisine. Production will include the preparation and presentation of classical menu items representing each cuisine. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 235.

CART 245 - Menu, Purchasing and Cost Control

3 Credit(s)
This course is designed to present menu planning as a guide to managing and cost controls. The emphasis is on the key role menu planning, pricing structures and cost controls play in relation to the entire operation of a food service establishment. Course includes planning various menus and proper pricing structures with regard to food, labor, utility and beverage costs. Students will be expected to understand the overall concept of purchasing and receiving practices in quality food service operations and to be able to apply knowledge of quality standards and regulations governing food products to purchasing function. The student will receive and store food and non-food items properly using standard storage practices. This course is designed to teach the management of the monetary dimension of the hospitality industry.

Prerequisite(s): Math Core requirement

CART 275 - Senior Seminar

1 Credit(s)
This course is designed to be the final course the culinarian takes before graduation and certification by the American Culinary Federation. The student will review important concepts through participation in class discussions, demonstrate mastery of all program outcomes through written and practical exams, and will submit a portfolio as part of this course. Students are required to have a complete chef's uniform for this class. The student can receive ACF Certification upon completion of this course and successful graduation.

Prerequisite(s): CART 251;
Pre/Corequisite(s): CART 241.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an

organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science degree listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Culinary Arts, C.A.S.

Major Code: 323

This program is designed to provide a certificate of achievement in food preparation with one year of training. It emphasizes basic techniques of food preparation. Hands-on experience in the laboratory classes is included to build a foundation of basic cooking skills and commercial food sanitation skills. Upon completion of the program students are prepared to obtain positions as prep cooks and other entry level kitchen positions in restaurants, fast food establishments, hotels and other food service operations. The certificate program prepares students for a seamless transition to the Culinary Arts, Associate in Applied Science program.

In addition to General Education Outcomes, upon completion the student should be able to:

- Prepare all types of meals using safe, sanitary and nutritional skills
- Use correct knife skills, kitchen equipment and kitchen related appliances
- Demonstrate customer service techniques
- Demonstrate skills in financial planning, menu planning
- Explain key laws and regulations for food service establishments

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Uniforms are required for CART 131, CART 145, CART 151, and CART 159.

Job Titles: Prep cook and other entry-level kitchen positions in restaurants, fast food establishments, hotels and other food-service operations.

Wage and Employment Trends:

- $23,900 Average Annual Salary (2020) in WV
- $11.49 average per hour in WV
- 1180 Projected job openings between in WV (2018-2028)
- 237,200 Projected job openings in the US (2019-2029)

Wage and employment trends based on Department of Labor and ONET statistics.

CIP Code: 120505

Fall Semester (17 Credits)

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 124 - General Nutrition

3 Credit(s)
This is an introductory course in nutrition. Its topics include definition of the nutrients and will address nutrient requirements and the use of RDA charts. The course includes the sources of nutrients and the effect of nutrient deficiencies. Digestion, absorption and weight control are a part of the course.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 131 - Bakeshop

3 Credit(s)
This course is designed for the beginner baker. Topics include baking principles, ingredient function and handling, weights and measures, terminology and formula procedures. Also included are the use and care of bakeshop tools and equipment. Production includes yeast products, cakes, cookies, pies and assorted desserts. Students must register for a lecture and laboratory section. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 145 - Elements of Commercial Food Preparation and Service

3 Credit(s)
This course is basic cooking skills and front of the house dining services. The course will cover the cooking of fundamental menu items to include breakfast, lunch and dinner items. Both à la carte and buffet preparation will be included in the cooking methods in this course. Included in the course are methods of table service, preparation of the dining room for service, personal hygiene, and sanitation and customer relations. Students actively perform standard

American Service on a rotating basis. The student will be exposed to cooking and service to customers each week. The student must have a server's uniform and a chef's uniform for this class. This course is to be offered the second nine week period in the first semester and is a continuation of CART 159 - Basic Food Science.

Pre/Corequisite(s): CART 121, CART 159 or permission of instructor.

CART 159 - Basic Food Science

3 Credit(s)
This course is an introduction to basic cooking skills, knife skills and the chemistry of foods. Content includes sandwiches, salad dressings, hors d'oeuvres, stocks, soups, vegetables, egg cookery and beverages. This course also covers basic food decorations and garnishes. Emphasis is on identification, selection, use and handling of ingredients. The course covers the cooking skills and methods used for the successful preparation of fundamental menu items - breakfast, lunch, and dinner. Emphasis is on preparation and handling. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Spring Semester (15 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 151 - Meat, Poultry and Seafood Preparation

3 Credit(s)
This course covers government standards for inspection and grading of meats, poultry and seafood. Emphasis is on the identification of meats - both primal and retail - and on the selection of the proper cooking method for varying cuts/types of meat, poultry and seafood. Production will include the preparation of menu items containing meat, poultry and seafood. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121 and CART 159 or permission of instructor.

CART 175 - Advanced Food Science

3 Credit(s)
This course is an expansion of CART 159. The emphasis is on the preparation and presentation of the classical techniques used in the culinary kitchen. The chemistry of foods and their origins will be further explored in this course. This course will cover such areas as vegetable reactions to different cooking techniques and mediums, the classical production of sauces and the uses of herbs and spices. The production of fresh made pastas, corn products, rice and other grains will be explored in this course. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 159.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- MATH - Math Core Requirement **3 Credit(s)**

Total Credits 32

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Early Childhood: Care and Education (Paraprofessional Educator), A.A.S.

Major Code: 329

This program is designed for those who want to work with children from birth-adolescence. Graduates can be expected to fill paraprofessional or professional positions in private or public agencies that provide early care and/or education services. This program meets the requirements of the WV Department of Education's paraprofessional educator's certificate (available at http://wvde.state.wv.us/policies); therefore individuals with this degree should also be eligible for positions as teacher's aides in the public school system. It also fulfills the majority of requirements for Early

Childhood Assistant Teachers in West Virginia and for employment in child care centers and independent pre-school programs.

Students who eventually plan to complete a bachelor's degree in a related field can use this degree as a foundation for transfer, but it is recommended that students who plan to complete a bachelor's degree before beginning employment consider completing additional requirements for an Associate in Arts 2+2 or transfer degree in Elementary Education, Secondary Education, or Early Childhood Education to maximize transferability of courses.

Students who eventually plan to complete a bachelor's degree in a related field can use this degree as a foundation for transfer, but it is recommended that students who plan to complete a bachelor's degree before beginning employment consider completing additional requirements for an Associate in Arts 2+2 or transfer degree in Elementary Education, Secondary Education, or Early Childhood Education to maximize transferability of courses.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Explain basic concepts, theories, and strategies used in early childhood care and education.
- Design and implement developmentally appropriate activities for children of different ages and ability levels in a childcare/educational setting
- Describe similarities and differences in the developmental milestones of infant, toddler, pre-school, and school - age children.
- Demonstrate professionalism and apply discipline-based ethics in childcare/educational settings by successfully completing an internship.
- Explain cultural, family, and individual influences on a child's development and service delivery.

Employment outlook is currently above average, but is dependent upon changing local, regional, and national needs. Salaries tend to be low-moderate for graduates, depending on location, type of facility, and the prospective employee's level of education and work experience. This program is designed to prepare individuals for entry-level positions in day care, preschools, and public school systems, or to prepare them for transfer to baccalaureate programs in early childhood education

NOTE: Two specialized programs which provide credit for credentials completed outside the college setting are available for students who possess either a U.S. Department of Labor Apprenticeship Certificate (ACDS) and/or a Child Development Associate (CDA) credential. (See Occupational Development, A.A.S. and Technical Studies, A.A.S. in the Center for Economic and Workforce Development section.) Contact an advisor for additional information.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following university to complete a four-year degree:
    - West Virginia University - BS in Child Development and Family Studies, Child Development Emphasis

Job Titles: Assistant preschool teacher, caregiver, childcare provider, teacher's aide (US Dept of Labor, 2017)

Wage and Employment Trends:

- $18,000 to $25,000 annually
- Average Projected Job Growth (2% job growth over the next seven years) (US Dept of Labor, 2017)

CIP Code: 131210

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the

early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15/16 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.

- MATH - Restricted Mathematics Core **3(4) Credit(s)** *

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16/17 Credits)

ECCE 205 - Early Childhood Seminar

1 Credit(s)
This course is a combined lecture and seminar which prepares students in the Early Childhood: Care & Education AAS degree for their internship or field experience the following semester. Students will review important concepts, skills, and abilities necessary for the student to be successful in their internship/field experience and cover topics related to the requirements of the field experience. Students may be required to complete a criminal background check and/or drug screening by the sponsoring agency to determine their eligibility for the internship/field experience. Topics covered will include: Codes of ethics for paraprofessionals in early childhood care and education settings, including legal and practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the internship/field placement.

Prerequisite(s): ECCE 100
Pre/Corequisite(s): ECCE 220 or ECCE 212

ECCE 212 - Child, Family, and Community

3 Credit(s)
This course examines the relationships between the young child and other members of the family unit, and the relationship between the family and the early childhood program. The focus is on the child during infancy, toddler, and preschool years. Studies include the diversity of family lifestyle and cultures.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
SCI - Science Core Requirement 3(4) Credit(s) **Credits / Units:** 3/4
Restricted Electives 3 Credit(s) ##

Spring Semester (15 Credits)

ECCE 208 - ECCE Field Experience

3 Credit(s)
This course is designed to meet program outcomes and standards required for preparation of early childhood paraprofessionals as identified by the National Association for the Education of Young Children (NAEYC). It involves the application of coursework, theories, and practice. It is both a field experience and a seminar which requires a total of 200 contact hours at an appropriate child care agency, or educational institution and in a classroom seminar. It is considered the "capstone" course or experience for the early childhood students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical early childhood courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): ECCE 100, ECCE 212, HS 147 , HS 205 , with a "C" or better, AND permission of the program director. Students may also be required to meet other criteria for entry into the field experience that may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.
Pre/Corequisite(s): MATH 108 or MATH 204 or MATH 205 or MATH 210

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of

presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Electiive - can be any 3 credit college-level course **3 Credit(s)**

Total Credits (61-63)

Recommended choice for transferring students.

Choose one course from the following: ART 150, MUS 105, HIST 110 or HIST 111, MGT 250 or MGT 253, or SS 207.

* Restricted Math Core must be chosen from MATH 108#, MATH 210#, MATH 204 or MATH 205.

*** BIO 110, BIO 112, or BIO 113 are recommended.

** Before registering for the field experience, students must apply to and be accepted by an approved educational institution, or child care agency. There is also a class requirement of 2 hours every other week.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Education: Elementary Education, A.A.S. (Transfer to West Liberty University)

Major Code: 391

Note: This program is through a transfer agreement in which a student completes an Associate's degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an A.A.S. degree from West Virginia Northern. Upon successfully completing the specified credit hours at West Liberty University, students will receive a B.A. degree in Elementary Education.

Students successfully completing and receiving an A.A.S. degree under the Elementary Education transfer agreement with WLU will be able to:

- Demonstrate knowledge of human development, developmentally appropriate practice, effects of family and culture on children, educational systems, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

To be admitted to the WLU program, students must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which includes direct instruction, simulations, and group discussions. It is recommended that transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English faculty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 131202

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HIST 110 - The United States to 1865

3 Credit(s)
This course surveys the history of the United States through the Civil War, stressing the origin and development of various attitudes and beliefs about the meaning of the American experience.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for

providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Spring Semester (17 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HIST 111 - The United States Since 1865

3 Credit(s)
This course surveys the history of the United States from the Civil War, emphasizing the response of Americans to a maturing technological society which challenges the resilience of traditional values and institutions.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- ENG - Literature Core Requirement* **3 Credit(s)**

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 204 - Mathematics for Elementary Teachers I

4 Credit(s)
This course is recommended for students interested in teaching in grades K-9. The topics include problem solving, algebraic thinking, sets and set operations, functions, operations with whole numbers, integers, rational numbers, decimal numbers, and elementary number theory.

Pre/Corequisite(s): Satisfactory math placement or MATH 204S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (13 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

MATH 205 - Mathematics for Elementary Teachers II

4 Credit(s)
The topics include probability, statistics, introductory geometry, geometric constructions, congruence, similarity, the Cartesian Coordinate System, solving systems of equations, measurement (English and Metric), the Pythagorean Theorem, surface area, mass, temperature, and motion geometry.

Pre/Corequisite(s): Satisfactory math placement or MATH 205S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (62)

A minimum of "C" is required in all courses to be used for transfer.

*Choose from ENG 200, ENG 201, ENG 210, or ENG 211.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: PK-5 Elementary Education, A.A.S. (Transfer to FUS)

Transfer to Franciscan University of Steubenville

Major Code: 390

Note: Under this transfer agreement, a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years.

Students successfully completing this option will receive an Associate in Appllied Science degree from West Virginia Northern. Upon successfully completing the remaining specified credit hours at Franciscan University they will receive a Bachelor of Science Degree in Education, with eligibility for the initial Ohio teaching license upon successful completion of the educator preparation program. In addition to the WVNCC courses, applicants for admission to a Franciscan University Teacher Education program must meet the following criteria:

- Submit a transcript to Franciscan University verifying an overall grade point average of 2.5.*
- Successful completion of the PRAXIS CORE (reading, mathematics, & writing); **(Note: Students must provide evidence that they have passed all parts of the PRAXIS prior to acceptance & enrollment in classes in the Teacher Preparation Program. Students who do not pass the PRAXIS CORE are not eligible for licensure).**
- Submit a written application for admission to teacher education to the Department of Teacher Preparation Programs.
- Submit two positive recommendations from faculty.
- Positive recommendation by the Education Unit faculty.

In addition to General Education Outcomes, students successfully completing and receiving an A.A.S. degree under the articulation agreement with Franciscan University's educator preparation program should be able to:

- Demonstrate knowledge of the history of the profession of education.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in education.
- Demonstrate knowledge of the major theories of human development.
- Demonstrate knowledge of the issues related to standards of the teaching profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the A.A.S. degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If a student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny the student employment or placement in certain settings, even if he or she has completed all academic requirements. If the student has ever been convicted of a felony or misdemeanor, he or she should contact the appropriate Program Director or Division Chair.

CIP Code: 131202

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** +

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (14 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

MATH 204 - Mathematics for Elementary Teachers I

4 Credit(s)
This course is recommended for students interested in teaching in grades K-9. The topics include problem solving, algebraic thinking, sets and set operations, functions, operations with whole numbers, integers, rational numbers, decimal numbers, and elementary number theory.

Pre/Corequisite(s): Satisfactory math placement or MATH 204S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are

considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (16 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.
HUM - Humanities Core (Literature) **3 Credit(s) Credits / Units:** 3

MATH 205 - Mathematics for Elementary Teachers II

4 Credit(s)
The topics include probability, statistics, introductory geometry, geometric constructions, congruence, similarity, the Cartesian Coordinate System, solving systems of equations, measurement (English and Metric), the Pythagorean Theorem, surface area, mass, temperature, and motion geometry.

Pre/Corequisite(s): Satisfactory math placement or MATH 205S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (61)

A minimum of a "C" is required in all courses for transfer.

+ Choose from: HIST 100 or HIST 101.

*** Choose from: ENG 200, ENG 201, ENG 210, or ENG 211.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: Pre-K, K Early Intervention, A.A.S. (Transfer to West Liberty University)

Major Code: 394

Note: This program is through a transfer agreement in which a student completes an Associate's degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an A.A.S. degree from West Virginia Northern. Upon successfully completing the specified credit hours at West Liberty University, students will receive a B.A. degree in Elementary Education: Major: Early Intervention.

Students successfully completing and receiving an A.A.S. degree under the agreement with WLU in the Education: Pre-K, K Early Intervention program with WLU will be able to:

- Demonstrate knowledge of human development, developmentally appropriate practice, effects of family and culture on children, educational systems, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Applied Science degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

To be admitted to the WLU program, students must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.

- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which includes direct instruction, simulations, and group discussions. It is recommended that transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements Students should consult with an advisor and members of the Teacher Education faculty at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 131209

First Year

Fall Semester (16 Credits)

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ECCE 212 - Child, Family, and Community

3 Credit(s)
This course examines the relationships between the young child and other members of the family unit, and the relationship between the family and the early childhood program. The focus is on the child during infancy, toddler, and preschool years. Studies include the diversity of family lifestyle and cultures.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (17 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- HIST - History Core **3 Credit(s)**

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (12 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

A minimum of "C" is required in all courses to be used for transfer.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Arts General Education Requirements

Education: Secondary Education, English Specialization, A.A. (Transfer to West Liberty University)

Major Code: 388

Note: This program is through a transfer agreement in which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this degree will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will received a Bachelor of Arts degree in Teacher Education (Secondary) with an English specialization.

Students successfully completing and receiving an A.A. degree under the agreement with WLU in the Teacher Education with an English specialization will be able to:

- Demonstrate knowledge of important literary works and writers and their relationaship to historical and sociological events.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the concentration field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

In addition to the WVNCC courses, applicants for admission to the Teacher Education program at WLU must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which is a twelve (12) field-based experience which includes direct instruction, simulations, and group discussions. Minimum grade of "C" is required. It is recommended hat transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English fauclty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
SS - Social Science Core Requirement*** **3 Credit(s)**

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

ENG 201 - American Literature Since the Civil War

3 Credit(s)
This course is a survey of the American writers from the Civil War to the present, focusing upon the rise of realism, naturalism and other intellectual, sociological, political and historical trends.

Prerequisite(s): ENG 101.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 200 - American Literature Through the Civil War

3 Credit(s)
This course includes a study of American writers from Colonial days to the middle of the 19th century, emphasizing major figures, literary types and movements.

Prerequisite(s): ENG 101.

- HIST - History Core Requirement** **3 Credit (3)**

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (16 Credits)

ENG 211 - English Literature Since the Eighteenth Century

3 Credit(s)
This course is a continuation of the survey begun in ENG 210, including a study of the Romantic, Victorian and Modern periods with emphasis on major figures, literary types and movements.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Total Credits (62-63)

A minimum of "C" is required for transfer.

**Choose from HIST 100, HIST 101, HIST 110, or HIST 111

***Choose from ECON 105 or SOC 125

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: Secondary Education, Social Sciences Specialization, A.A. (Transfer to West Liberty University)

Major Code: 389

Note: This program is through a transfer agreement in which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

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Students successfully completing this degree will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will received a Bachelor of Arts degree in Teacher Education (Secondary) with a Social Sciences specialization.

Students successfully completing and receiving an A.A. degree under the agreement with WLU in the Teacher Education with a Social Sciences specialization will be able to:

- Demonstrate knowledge of the discipline in the social sciences and relevant historical, political, and sociological events.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the concentration field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

In addition to the WVNCC courses, applicants for admission to the Teacher Education program at WLU must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.

- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which is a twelve (12) field-based experience which includes direct instruction, simulations, and group discussions. Minimum grade of "C" is required. It is recommended hat transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English fauclty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

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CIP Code: 240101

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HIST 100 - World Cultures I

3 Credit(s)
This course examines the history of Western Civilization from the Prehistoric ages to the Middle Ages. It covers the political, social, economic, intellectual and religious aspects as they developed over the centuries. This course provides an understanding of the individuals and events that shaped Western Civilization and cultures. This course investigates essential historical background to our current world and provides information regarding the early origins of our current world problems and issues.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

HIST 101 - World Cultures II

3 Credit(s)
This course examines the history of Western Civilization from the 1400's to the World Wars and the following Cold War. It presents the political, social, economic, intellectual and religious aspects as they evolved during these eras. This course commences with the Middle Ages and provides an understanding of the individuals and events that impacted our Western Civilization till the present. The course presents the emergence of Modern Europe and its expansion of its colonization and revival of its expanding culture.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the

intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

or

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

or

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15-16 Credits)

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

HIST 110 - The United States to 1865

3 Credit(s)
This course surveys the history of the United States through the Civil War, stressing the origin and development of various attitudes and beliefs about the meaning of the American experience.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic

manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .
ENG- English Elective *3 Credit(s) **Credits / Units:** 3

Spring Semester (14 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HIST 111 - The United States Since 1865

3 Credit(s)
This course surveys the history of the United States from the Civil War, emphasizing the response of Americans to a maturing technological society which challenges the resilience of traditional values and institutions.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

General Elective**

Total Credits (60-61)

A minimum of "C" is required for transfer.

*Choose from: ENG 200, ENG 201, ENG 210, or ENG 211

**General Elective can be choosen from any course; However SS 255 is recommended for transfer.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Electro-Mechanical Technology, A.A.S.

Major Code: 266

This program is designed to prepare individuals to be technicians in the exciting fields of electrical and mechanical maintenance, installation, trouble shooting and to work alongside engineers and technologists. The highly technological, integrated, and automated manufacturing facilities of today's modern workplace demand technicians with advanced training. Employers are looking for technicians who have strong interdisciplinary training and skillsets.

All of our technical courses have an extensive hands-on lab component as students learn skills in electrical systems, motor control, hydraulics and pneumatics, programmable logic controllers, instrumentation, workplace safety, problem solving and teamwork. These are the technical skills that employers are looking for in a technician.

As your understanding of the fundamentals grows, you will progress into more advanced courses such as: programmable controllers, pump & piping, instrumentation, and problem solving. As you advance through this program you will have the opportunity to choose an "Specialty/Emphasis On" program. This allows you to acquire more advanced training and skills in career option paths such as: Automation, Instrumentation, or Electrical Technologies. Or choose a Certificate of Applied Science in Industrial Maintenance, CAS or Energy Tech, CAS. Each of these career pathways have a set of core fundamental classes and then you will move into the chosen field of expertise. (Automation, Instrumentation or Electrical Technologies AAS.)

Upon completion of this program, graduates will be able to:

- Describe and recognize the various mechanical and electrical components used in modern industrial and manufacturing processes.
- Apply scientific and mathematical principles dealing with electrical, fluid power, and mechanical applications.

- Demonstrate hands-on troubleshooting skills on mechanical and electrical components used in modern industry and manufacturing processes.
- Demonstrate critical thinking skills for designing, installing, and maintaining mechanical and electrical systems.
- Communicate effectively using electrical and mechanical prints and other documentation.
- Develop professional skills through a work-based learning experience or simulation.

Job opportunities for technicians exist across a broad spectrum of industries. The petroleum, chemical, power generating, green energy, manufacturing, and fabricating industries are all looking for qualified employees.

CIP CODE: 15.0403

First Year

Fall Semester (14 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (16 Credits)

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

MEC 140 - Programmable Controllers I

3 Credit(s)
The course introduces the basic theory, operation and programming of programmable logic controllers. Programming examples, set-up examples and troubleshooting are demonstrated. Also included is PLC timing, counting, and arithmetic and logic sequences.

Prerequisite(s): APT 155
Pre/Corequisite(s): APT 103 and APT 104 with a minimum grade of "C" OR MSHA 80 hour Apprentice Miner Class.

PHYS 115 - Applied Physics

4 Credit(s)
This course is a study of the basic laws of physics in mechanics and electricity. Emphasis is placed upon the solution of problems relating to statics, dynamics, fluids, circuitry and electrical instruments. Problems are drawn from biology, medicine and engineering. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, satisfactory math placement or MATH 101.
Pre/Corequisite(s): ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- Restricted Core Elective* 3 Credit(s)

Spring Semester (14 Credits)

MEC 230 - Fluid Power Systems

3 Credit(s)
The course introduces the student to more complex fluid power circuits including hydraulic and pneumatic systems. Students design, analyze and troubleshoot complex circuits using PLC's, relays, solenoids, controlling fluid systems while using schematic diagrams.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C and APT 150.
Pre/Corequisite(s): MATH 113.

MEC 235 - Instrumentation II Electrical

3 Credit(s)
Instrumentation II Electrical is an introduction to the field of process control using electrical basic devices for measuring and controlling different kinds of variables in process control. The course shall deal with areas that will explain the role of instrumentation electrically in a closed-loop control and PID functions. Students will work with analog and digital devices and programmable logic controllers (PLCs). This course will cover thermal measurement and operation of RTDs, thermistors, and thermocouples and thermometers, as well as pressure, flow, and level equipment and controls. Discussion on calibration standards, typical calibrating methods, and instrument testing will also be included.

Prerequisite(s): APT 155.

MEC 240 - Programmable Controllers II

3 Credit(s)
The course is a continuation of the field of industrial controls. Students will learn the principles of control systems and their application to production systems to achieve automation. Systems included in the course are stepper motors, programmable logic controllers, microprocessors, computers and feedback systems. Emphasis is placed on programmable logic controllers and the local area networks.

Prerequisite(s): MEC 140.

MEC 251 - Problem Solving & Teamwork Seminar

2 Credit(s)
The course is a capstone experience for the Advanced Manufacturing and Instrumentation Process Technology AAS programs. It is designed to reinforce and apply the knowledge and skills learned in communication, mathematics and technical courses and foster teamwork and problem solving skills. The course covers critical thinking skills, collection and analysis of data, quality control overview, teamwork and problem solving and decision making techniques and is intended to be an application of skills learned throughout the programs. Students who are able to secure an internship will complete the course objectives in a work environment instead of the classroom. Requires program director's approval.

- Restricted Core Elective** 3 Credit(s)

Total Credit (60)

*Choose from MEC 105 or APT 201 .

**Choose from APT 112 , APT 230 , or APT 240 .

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Electro-Mechanical Technology, C.A.S.

Major Code: 263

The program of the Electro-Mechanical Technologies, C.A.S., is a one-year program designed to prepare individuals to be maintenance employees in the exciting fields of Electrical or Mechanical maintenance. You will learn about the installation, trouble shooting, and repairing of modern industrial machinery, and how to work alongside other maintenance workers and engineers. The highly technological, integrated and automated manufacturing facilities of today's modern workplace demand advanced training that we provide. Employers are looking for technicians who have strong interdisciplinary training and skillsets.

Upon completion of this program, graduates will be able to:

- Describe the basic principles of hydraulic and pneumatic systems.
- Safely perform basic welding practices used in industrial applications.
- Apply scientific principles to electrical systems.
- Describe the basic principles of refrigeration systems.
- Describe the various mechanical components used in modern machinery.
- Demonstrate safe practices and procedures to avoid common industrial hazards.
- Interpret electrical and mechanical prints and other documentation.

CIP: 150403

Fall Semester (14 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career

paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Energy Technology, A.A.S.

Major Code: 265

The Energy Technology program is designed to prepare students for employment in the natural gas drilling, gathering and field operations industry including Marcellus and Utica Shales and to give students a basic understanding of renewable energy technologies. The program provides a strong foundation in oil and gas exploration, production, including development in the Appalachian Basin. Students also learn about alternative energy technologies and their applications including geothermal, solar and wind. Laboratory classes include a strong emphasis on hands-on experiences. Safe work practices are emphasized and several industry certifications are embedded within the curriculum.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Follow conventional industrial safety and communication practices
- Perform procedures and tasks commonly used in exploration for and production of oil and gas in the Appalachian Basin
- Explain considerations that go into natural gas processing
- Use various instruments and equipment to measure fluids, temperature, flows, and pressures
- Apply principles of hydraulic, pneumatic, and electrical systems to equipment in the energy industry
- Explain alternative energy technologies and applications

The program qualifies graduates for employment in such positions as field technicians, pumpers, drilling technicians, measurement technicians, compressor operations, and many others. As the energy transition continues, an understanding of alternative energy system operations will become increasingly important.

Job Titles: Board Operator, Gauger, Hydrotreater Operator, Outside Operator, Pumper, Unit Operator

Wage and Employment Trends:

- Median Wages (2016) $27.15 hourly, $56,470 Annual
- Employment (2016): 15,000 Employees
- Projected growth (2016-2026): Much faster than average (15% or higher)

- Potential Industry Credentials Earned: SafeLands USA, OSHA 30 hour General Industry completion card, CPR/First Aid, Compressor Basic Training, Well Control Awareness Training, FEMA Introduction to Hazardous Materials Training

CIP Code: 150903

First Year

Fall Semester (15 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

NRG 101 - Energy Transition Technology & Applications

1 Credit(s)
This course will introduce students to technologies used in the worldwide effort to transition to less reliance on fossil fuels. Topics covered include methods used to generate electricity, power vehicles and technologies for Carbon Capture, Utilization and Storage (CCUS).

PTRM 104 - Production Technology with Hands-On Lab

3 Credit(s)
This course trains the student in tasks, methods, and procedures commonly used in the production of oil and gas in the Appalachian Basin. Topics include two, three, and four phase flow, use and maintenance of production surface equipment, artificial lift, gauging tanks, thieving tanks, preparing oil to be run, gas dehydration, and gas measurement.

Spring Semester (15/16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.
or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 150 - Drilling/Completion Operations

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in drilling and completing oil and gas wells including in the Appalachian Basin. Students will learn about drilling rig components and operations as well as completion techniques. Emphasis is placed upon safe operation of the systems. Hands-on training provides experience in the proper and safe use of equipment used in the drilling operation.

Second Year

Fall Semester (15/16 Credits)

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PTRM 206 - Applied Chemistry for Petroleum with Hands-on Lab

4 Credit(s)
This course presents basic concepts of chemistry and applies them to upstream oil and gas operations. Molecular structure, gas laws, acids and bases, red-ox reactions, and basic organic chemistry are all included in the course. A key component is chemistry as it relates to personal and environmental safety and health. Students learn the critical role that chemistry plays in all aspects of the production, drilling and services industries.

Prerequisite(s): MATH 113

PTRM 208 - Artificial Lift with Hands-on Lab

3 Credit(s)
This course is designed to familiarize students with various types of functions of artificial list equipment. Plunger lift, sucker rod pumping and gas lift will be emphasized. Also included will be electric submersible pumps, progressing cavity pumps, velocity strings and hydraulic lifts.

Prerequisite(s): Satisfactory math placement or MATH 101, and satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

or

PTRM 217 - Petroleum Geology of Appalachia

2 Credit(s)
This course introduces the student to the geological theory and science of the Appalachian Basin which not only is the birthplace of the world's commercial petroleum industry but possibly the most significant source of natural gas and oil in the US for the 21st century. Basic geology concepts are presented including stratigraphy, petroleum formation and reservoirs, and characteristics of various geological structures.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

PTRM 210 - Introduction to Midstream Gas Operations

3 Credit(s)
This course introduces the student to midstream gas operations including handling, processing, transportation, and storage of gas after it leaves the well. The course includes the basics of gathering system design, gas conditioning, gas processing concepts, transmission, and storage.

PTRM 211 - Well Control with Hands-on Lab

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in well control for drilling, workover, and completion operations. The course covers the behavior of various types of drilling fluid and focuses on

gas kicks and application of the general gas laws to well control. Included in this course is a lab using an IADC-approved computerized drilling simulator.

Prerequisite(s): PTRM 109 and MATH 113

PTRM 213 - Gas Measurement with Hands-on Lab

2 Credit(s)
This course trains the student in use of orifice measurement to meter gas with applications for field production and operations that are further downstream. Students learn about orifice measurement hardware and techniques for installation, maintenance and troubleshooting. Measurement charts and digital recorders, along with other type of measuring devices, are also presented.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, and satisfactory math placement test scores orMATH 101 or MATH 108 or MATH 113 , or MATH 279 or MATH 280 or MATH 281 ; and APT 103 and APT 104 with a minimum grade of a C.

PTRM 235 - Petroleum Technology Seminar

2 Credit(s)
This course is a capstone course for the Petroleum Technology program and is designed to reinforce and apply the knowledge and skills learned in safety, petroleum, communication, mathematics, and technical courses throughout the course of the program. Options include an approved internship within the petroleum industry, or a capstone class.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C, HPE 110, and approval of program director.
or

PTRM 120 - Internship/Cooperative Work-Based Experience

2 Credit(s)
A summer internship is typically employment of a student by a petroleum company for the purpose of gaining experience while working as a temporary employee of the company. The student must work with the program director to arrange for an internship. The student must be approved by the company providing the internship so there are a number of requirements which must be met. Prerequisites include 24 hours in the program with a 2.5 or higher GPA and program director permission.

Prerequisite(s): PTRM 102 and PTRM 105

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

Total Credits (60-62)

*Courses with a hands-on lab component

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Energy Technology, C.A.S.

Major Code: 264

The Energy Technology C.A.S. program is designed to prepare students for employment in the natural gas drilling, gathering and field operations industry including Marcellus and Utica Shales and to give students a basic understanding of renewable energy technologies used on the well site. The program provides a strong foundation in oil and gas exploration, production, including development in the Appalachian Basin. Laboratory classes include a strong emphasis on hands-on experiences. Safe work practices are emphasized and several industry credentials are embedded within the curriculum.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Follow conventional industrial safety and communication practices
- Perform procedures and tasks commonly used in exploration for and production of oil and gas in the Appalachian Basin
- Identify basic considerations that go into natural gas processing
- Use various instruments and equipment to measure fluids, temperature, flows, and pressures
- Apply principles of hydraulic, pneumatic, and electrical systems to equipment in the energy industry
- Explain alternative energy technologies and applications as applied to well sites

The program prepares graduates for employment as field technicians, pumpers, drilling technicians, and other technical positions related to the energy industry.

Job Titles: Board Operator, Gauger, Hydrotreater Operator, Outside Operator, Pumper, Unit Operator

Wage and Employment Trends:

- Median Wages (2016) $27.15 hourly, $56,470 Annual
- Employment (2016): 15,000 Employees
- Projected growth (2016-2026): Much faster than average (15% or higher)
- Potential Industry Credentials Earned: SafeLands USA, OSHA 30 hour General Industry completion card, CPR/First Aid, Compressor Basic Training, Well Control Awareness Training, FEMA Introduction to Hazardous Materials Training

CIP Code: 150903

Fall Semester (15 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

NRG 101 - Energy Transition Technology & Applications

1 Credit(s)
This course will introduce students to technologies used in the worldwide effort to transition to less reliance on fossil fuels. Topics covered include methods used to generate electricity, power vehicles and technologies for Carbon Capture, Utilization and Storage (CCUS).

PTRM 104 - Production Technology with Hands-On Lab

3 Credit(s)
This course trains the student in tasks, methods, and procedures commonly used in the production of oil and gas in the Appalachian Basin. Topics include two, three, and four phase flow, use and maintenance of production surface equipment, artificial lift, gauging tanks, thieving tanks, preparing oil to be run, gas dehydration, and gas measurement.

Spring Semester (15/16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing

inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 150 - Drilling/Completion Operations

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in drilling and completing oil and gas wells including in the Appalachian Basin. Students will learn about drilling rig components and operations as well as completion techniques. Emphasis is placed upon safe operation of the systems. Hands-on training provides experience in the proper and safe use of equipment used in the drilling operation.

Total Credits (30-31)

*Course has a hands-on lab component.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Health Information Technology, A.A.S.

Major Code: 262

The Health Information Technology, A. A. S. curriculum provides a comprehensive foundation in health information management. The first year provides students an introduction to foundational courses such as medical terminology, electronic health records, anatomy and physiology, diagnostic and procedural coding, reimbursement methodologies, and business math. Year two builds on this foundation by providing additional concentration of medical

coding through intermediate and advanced courses. The curriculum in the program helps students develop the entry-level skills needed in health information management, collection and dissemination of health data, revenue cycle and reimbursement procedures, fraud and abuse, confidentiality, privacy, medical coding, information governance, and statistical outcomes.

Upon completion of the program students will meet eligibility requirements to sit for the Certified Billing and Coding Specialist (CBCS) and Registered Health Information Technician (RHIT) certification exams.

Program Outcomes:

· Demonstrate knowledge of entry-level procedures related to health information management, medical reimbursement, and the revenue cycle.

· Apply anatomy & physiology and medical terminology to medical billing and coding procedures.

· Demonstrate knowledge of data content, structure and information governance.

· Demonstrate knowledge of the legal process related application of HIPAA and to the access, use, disclosure, privacy and security of health care documentation.

· Demonstrate ability to utilize and analyze patient data, and demonstrate knowledge of revenue cycle management.

· Demonstrate leadership and organizational management skills.

· Demonstrate proficiency in the application of diagnostic and procedural coding to support reimbursement in multiple healthcare settings.

CIP Code: 510707

First Year

Fall Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

MBC 100 - Revenue Cycle Management I

3 Credit(s)
This course introduces students to the revenue cycle processes for inpatient, outpatient, and skilled care medical facilities. All components of the revenue cycle are covered including patient registration, medical billing and accounting processes, medical insurance and reimbursement methodologies.

Corequisite(s): MBC 110
Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

Spring Semester (16 Credits)

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MBC 110 - Physician and Hospital Coding

3 Credit(s)
Students are introduced to basic ICD-10-CM diagnostic coding as well as CPT-4 and HCPCS procedural coding for inpatient, outpatient, and skilled care facilities. Emphasis is placed on the appropriate selection of codes to meet Medical Necessity standards for medical insurance claims. Codes are selected for Evaluation and Management, Surgery, and other medical diagnoses, prodecures, and supplies.

Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

MBC 125 - Revenue Cycle Management II

3 Credit(s)
This course is a continuation of MBC 100 . Focus is placed on the application of medical billing processes to include medical billing procedures and insurance claim requirements and processing for inpatient, outpatient, and skilled care facilities. Students demonstrate skills using an online medical office management system.

Prerequisite(s): MBC 100 and MBC 110
Pre/Corequisite(s): AHS 108, AHS 110, BIO 115, CIT 117, and MATH 115

Second Year

Fall Semester (16 Credits)

HIT 100 - Introduction to Health Information Technology

2 Credit(s)
This course provides an introduction to health information management and specifically to the role of the Registered Health Information Technologist (RHIT) as a member of the health care team. Emphasis is placed on the revenue cycle, health care regulators, health care providers, and the impact of medical coding processes and information systems on effective patient care.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , and MAS 151
Pre/Corequisite(s): MATH 210

HIT 145 - HIT Professional Practice Experience (PPE) I

2 Credit(s)
This course is designed to provide the student with the opportunity to apply the basic principles of health information management (HIM) in a virtual health care setting. Opportunities are provided for students to identify methods of data collection, application of HIM principles, patient records storage, data analysis, and patient confidentiality practices. This virtual practice experience accounts for 30 contact hours of the total practice hours required in the program.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): MATH 210 , HIT 100 ,HIT 150 , and HIT 235

HIT 150 - Health Record Documentation

3 Credit(s)
This course provides an in-depth study of medical records as the primary source of patient information and secondary source for research in clinical studies, public health data, and fraud and abuse within revenue cycle management. Medical documentation from a variety of medical facilities will be analyzed.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): MATH 210 , HIT 100 , HIT 145 , and HIT 235

HIT 235 - Intermediate Medical Coding

3 Credit(s)
This course expands the use of ICD-10-CM and ICD-10-PCS diagnostic and CPT-4 procedural coding. Students' medical coding skills advance from the basic outpatient medical records to the more complex inpatient hospital records. Emphasis is placed on the use of appropriate coding guidelines and the application of coding skills to meet compliance requirements related to the insurance component of the revenue cycle.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): HIT 100 , HIT 145 , HIT 150 , and MATH 210

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with

emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (14 Credits)

HIT 240 - Quality Management and Performance Improvement

3 Credit(s)
This course addresses quality management and performance improvement in the use of medical data, information protection, health information and data analytics. Management processes for the health information management field are also addressed.

Prerequisite(s): HIT 100, HIT 145, HIT 150, HIT 235, and MATH 210

HIT 260 - Advanced Medical Coding

3 Credit(s)
This course is designed to provide the student advanced experience extracting patient data and assigning ICD-10-CM, ICD-10-PCS, HCPCS, and CPT-4 codes. The student will apply coding conventions and guidelines specific to each coding system to accurately assign codes to patient charts. Basic HIM applications are utilized to perform both quantitative and qualitative analysis. Encoder use and various coding software applications are also reviewed.

Prerequisite(s): HIT 100, HIT 145, HIT 150, HIT 235, and MATH 210

HIT 263 - Health Information Technology Seminar

2 Credit(s)
This course provides students with a review in preparation for the Registered Health Information Technologist (RHIT) certification exam. Information and resource strategies are also addressed related to organizational changes, ethical behaviors in the workplace, and human resources management.

Corequisite(s): HIT 265
Pre/Corequisite(s): HIT 240 and HIT 260

HIT 265 - HIT Professional Practice Experience (PPE) II

3 Credit(s)
Under direct supervision of a Health Information Management instructor, the student experiences day-to-day practice operations in health records management. PPE II is a comprehensive 90-hour learning experience at a medical affiliate site selected by the Program Director. Upon completion of this final practical experience, the student will have the skills to function in an entry-level HIM professional position.

Corequisite(s): HIT 263
Pre/Corequisite(s): HIT 240 and HIT 260

- SS - Social Science Core Elective **3 Credit(s)**

Total Credits (60)

**Students who plan to transfer to a four year institution should take SPCH 105.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Hospitality and Tourism, C.A.S.

Major Code: 321

The certificate will prepare students for entry level positions in the hospitality industry. Completion of this certificate provides the skills needed to meet personal and professional goals in the chosen hospitality field. Students will need to complete a field experience as part of this program.

Graduates can expect obtain employment positions as assistant restaurant food service, assistant hotel managers, conference planners and managers in areas related to travel and tourism.

Hospitality CAS Program Outcomes

- Identify and compare various components of the hospitality industry and specify the career challenges and trends.
- Understand the basic workings of a manger in the hospitality industry.
- Understand the relationship between cost and revenue and how to be prepared for unique challenges in the industry.

- Explain governmental regulations and laws on the local, state, and federal level. How do they impact hospitality directly and indirectly.
- Apply communication skills through discussion of sales promotion, advertising, and public relations policies by researching behavior of the hospitality industry.

CIP Code: 520904

Fall Semester (14 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (16 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 245 - Menu, Purchasing and Cost Control

3 Credit(s)
This course is designed to present menu planning as a guide to managing and cost controls. The emphasis is on the key role menu planning, pricing structures and cost controls play in relation to the entire operation of a food service establishment. Course includes planning various menus and proper pricing structures with regard to food, labor, utility and beverage costs. Students will be expected to understand the overall concept of purchasing and receiving practices in quality food service operations and to be able to apply knowledge of quality standards and regulations governing food products to purchasing function. The student will receive and store food and non-food items properly using standard storage practices. This course is designed to teach the management of the monetary dimension of the hospitality industry.

Prerequisite(s): Math Core requirement

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and

general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

HAT 150 - Meeting and Convention Planning

3 Credit(s)
This course exposes students to principles and practice experiences in planning meetings, conventions, and catered functions. Students will plan, organize, execute, and evaluate meeting and catering functions to meet the needs of clients and guests. Emphasis is placed on customer satisfaction and how it is measured.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097
Pre/Corequisite(s): ENG 101

HAT 155 - Hotel/Lodging Mgt and Practicum

4 Credit(s)
This course will look at the lodging industry specifically. This course is a partial lecture base and field experience. Students will be required to have a field experience of a minimum of 150 hours for the semester. Students will look at the guest experience relations and what that encompasses. Students will learn different software systems to communicate and track the operations.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101

Total Credits 30

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Human Services, A.A.S.

Major Code: 324

This program is designed for students who want to prepare for careers in human service agencies. It also is for employees of such agencies who wish to obtain new knowledge or skills. Students will use the knowledge and skills of the social sciences to learn more about human behavior, especially as it relates to assessing and designing interventions for maladaptive or problem behaviors in children, adolescents, adults and the elderly.

In addition to General Education Outcomes, students successfully completing and receiving a Human Services A.A.S. degree should be able to:

- Explain history, concepts, theories and strategies used in psychology & human services delivery systems.
- Explain issues related to the needs of different types of clients based on cultural, family, and individual factors.
- Demonstrate professionalism and apply discipline-based ethics in clinical settings by successfully completing an internship.
- Apply the skills, techniques, strategies, and abilities needed for assessing, treatment planning, and therapeutic communication with clients in individual or group settings

- Apply the skills and abilities needed to be objective, understanding, and empathetic toward individuals from diverse backgrounds and ability levels.

Graduates of this program can expect to be employed in human services agencies in positions which do not require bachelor's degrees as occupational, social skills or basic living skills trainers or assistants, as behavior specialists, as case aides or caseworkers, or as mental health or crisis intervention technicians. To become licensed social workers, certified addictions counselors or similar professionals, students with the associate degree will need to continue their education by earning more advanced degrees at other colleges or universities. Students who plan to complete a bachelor's degree before seeking employment should consider earning an Associate in Arts degree with a concentration in Human Services rather than an Associate in Applied Science degree in Human Services in order to obtain credits in more courses that will easily transfer to four-year institutions.

The employment outlook for these jobs currently is average to above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

Job Titles: Case Manager, Child Protective Services Worker, Family Protection Specialist, Family Service Worker, Youth Services Specialist, Direct Services Worker

Wage and Employment Trends:

- $20,000 to $28,000 (US Dept of Labor, 2017)
- 5% growth in the next seven years (US Dept of Labor, 2017)

CIP Code: 440701

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15-17 Credits)

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible

causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- MATH - Restricted Math Core **3(4) Credits** *

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Second Year

Fall Semester (16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency

expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s)** ##
  SCI - Science Core Requirement **3(4) Credit(s)***

Spring Semester (15 Credits)

- Elective - can be any college-level course **3 Credit(s)**

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of

presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

HS 208 - HS Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar that requires a total of 200 contact hours at an appropriate social services agency. It is considered the "capstone" course or experience for human services students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 205, HS 210, with a "C" or better, AND permission of a program instructor. Students may also be required to meet other criteria for entry into the field experience thay may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.

- Restricted Elective **3 Credit(s) ##**

Total Credits (61-63)

#Recommended for transferring students

Choose 6 hours of restricted electives from: ART 256, CRJ 245, PSYC 155, PSYC 210, PSYC 218 or SS 207.

* Restricted math core should be chosen only from MATH 109, MATH 108 or MATH 210. Students who plan to transfer should take MATH 108 or MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

** Before registering for the Field Placement, students must apply to and be accepted by an approved social services agency. There is also a class requirement of two hours every other week.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Industrial Maintenance Technology, C.A.S.

Major Code: 243

This program is designed to provide the technical knowledge and skills necessary for entry-level maintenance personnel positions in many types of businesses and industries. Students are prepared to make a rapid transition into gainful, productive employment.

Upon completion of this program, graduates will be able to:

- Demonstrate basic knowledge of welding
- Demonstrate basic knowledge of hydraulic systems
- Demonstrate basic knowlesge of pumps and piping systems
- Demonstrate basic knowledge of electrical systems
- Recognize common industrial hazards
- Interpret basic industrial prints

Graduates from this program can expect to obtain employment in positions such as welders, pipefitters, heating technicians, refrigeration technicians, and facility maintenance workers.

Graduates are employed by unions, industrial, chemical and electrical plants, industrial centers, light and heavy commcercial centers, and health care facilities. The employment outlook for industrial maintenance technicians is excellent. There are job opportunities in Industrial Maintenance throughout the region and across the United States.

CIP Code: 470399

Fall Semester (15 hours)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

- Math Requirement* **3 Credit(s)**

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat. Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

Spring Semester (16 credits)

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

- English Requirement** **3 Credit(s)**

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MEC 232 - Pumps and Piping

3 Credit(s)
The course provides basic theory of layout of industrial piping systems. A variety of pumps, their components, and service applications will be examined. The course will provide an introduction to pipe fitting and identification of different pipe materials, sizing and connection methods for proper fluid handling with an emphasis on practical applications. Lab activities stress safety and include experience cutting and threading pipe, laying out a piping system, and connecting the system to working pump units and pump alignment.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C, APT 150.

Total Credits 31

*Choose from MATH 101 or MATH 108 or MATH 113 or MATH 279 or MATH 280 or MATH 281

**Any college level English will fulfill this requirement.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Licensed Practical Nursing (LPN), C.A.S

Licensed Practical Nursing (LPN), C.A.S.

Major Code: 162M

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

LPN is a profession with a comprehensive body of knowledge and skills. Practical nurses practice the art and science of nursing, providing compassionate, comprehensive, and competent care to patients of all ages. LPNs are essential members of the healthcare team who work under the direct supervision of registered professional nurses to perform their duties.

In addition to General Education Outcomes, graduates will be prepared to:

1.Provide competent, safe, quality, patient-centered nursing care to patients with predictable healthcare needs through a supervised, directed practice using professional standards, best practices, and available evidence. (**Safe, Patient-Centered Care)**

2. Participate as an advocate for patients and promote dignity, respect, and privacy while using ethical and legal principles. (**Caring Behaviors)**

3.Interact and collaborate with patients and members of the healthcare team using effective communication and information technology. **(Communication)**

4. Provide competent, safe, quality, patient-centered nursing care using critical thinking skills and clinical judgment. (**Clinical Judgment)**

5. Participate in collaborative relationships with patients and members of the interdisciplinary healthcare team to assist in planning, delivery, coordination, and improvement of patient-centered care. (**Collaboration)**

6. Assist in the coordination of the care of diverse patients in a variety of healthcare settings using professional behaviors.(**Leadership)**

CIP CODE: 51.3901

First Semester

LPN 110 - Fundamentals and Foundations of Practical Nursing

8 Credit(s)
Fundamentals of nursing introduces the student to concepts and theories basic to the art and science of nursing. The role of the practical nurse as a member of the healthcare team is emphasized in this course. Students are introduced to the concepts of comfort measures, assistance with daily living activities, safety, positioning and transporting, asepsis and sterile techniques, communication, teaching/learning, critical thinking, ethical-legal issues, cultural diversity, and the history of nursing.

This course focuses on the basic nursing care concepts of adult patients. Learners are challenged to use clinical judgment skills guided by established guidelines, competencies, and best practices. Communication, use of clinical

judgment, vital signs, body mechanics, aseptic technique, nutrition, and patient safety are emphasized. Medication calculation and administration of medications are practiced.

Concurrent clinical experience is required. The student will perform nursing skills and function within the scope of practice for a practical nurse in various health care settings during clinical practicums. Clinical experiences provide learners the opportunity to apply psychomotor skills, communication, and the systematic problem-solving process (nursing process) to provide safe, quality, patient-centered nursing care for adult patients. Successful completion of all laboratory, theoretical, and clinical components are required to receive credit for this course.

Prerequisite(s):

ENG 101 , AHS 103 , BIO 114 ,BIO 115
Corequisite(s): LPN 111 , LPN 112

LPN 111 - Integrated Human Sciences

2 Credit(s)
Integrated Human Sciences focuses on the normal anatomy and physiology of the human body, beginning with the cell and concluding with interactions among all body systems as an integrated whole. Using a systems approach, normal development and function of each system and the interaction among body systems are examined. The primary emphasis of this course includes a study of the cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, sensory, endocrine, blood, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive. Secondary emphasis of this course includes alterations in the structure and function of major body organs and systems. Interdependent regulations among systems are included with emphasis on application in nursing care situations.

Prerequisite(s): ENG 101 ,AHS 103 , BIO 114 , BIO 115
Corequisite(s): LPN 110 , LPN 112

LPN 112 - Pharmacology for Practical Nurses

2 Credit(s)
This course introduces learners to the concepts and general principles of pharmacology. Emphasis is placed on the physical and chemical properties of various pharmacology preparations, their pharmacodynamic and pharmacokinetic properties, the therapeutic effects of major drug categories, and health teaching considerations. Learners will apply knowledge gained in this course to selected clinical settings when caring for patients across the lifespan.

Prerequisite(s): ENG 101 , AHS 103 , BIO 114 , BIO 115
Corequisite(s): LPN 110 , LPN 111

Second Semester

LPN 121 - Medical-Surgical Nursing I

7 Credit(s)
This course focuses on the care of adults experiencing common and predictable health problems. Learners are challenged to use critical thinking skills guided by established professional standards, guidelines, competencies, and best practices. Health problems are examined with regard for pathophysiology, nutrition, pharmacology, legal, and ethical concepts. Clinical experiences provide learners the opportunity to apply psychomotor skills, communication,

legal and ethical responsibilities, and systematic problem-solving (nursing process) to provide safe, quality, patient-centered nursing care for adult patients.

Corequisite(s): LPN 122 , LPN 123

LPN 122 - Nursing & Healthcare I- Practice, Issues & Trends

2 Credit(s)
This course provides an overview of practical/vocational nursing and the role of the PN/VN as provider and patient-centered care, patient safety adovcate, member of the health care team, and member of the profession. Content includes knowledge, judgement, and values within a legal/ethical framework. The needs of the patient in relation to spirtiuality and culture are addresed. Principles of growth and development throughout the life cycles are included.

Corequisite(s): LPN 121 ,LPN 123

LPN 123 - Mental Health Concepts/ Geriatric Nursing

4 Credit(s)
This course focuses on the care of patients experiencing common, predictable alterations in mental health. Emphasis is on behavioral manifestations, psychological theories, and psychosocial adaptation to mental health problems, cultural and spiritual beliefs, and stress at various stages of personality development throughout the lifespan. The focus is on therapeutic communication, with attention given to an understanding of one's own behavior and this influence on the nurse-patient relationship.

Corequisite(s): LPN 121 , LPN 122

Third Semester

LPN 130 - Medical-Surgical Nursing II

7 Credit(s)
This course focuses on the nursing care of the adult patient with common, long-term, and chronic healthcare needs. The course builds on content from LPN 121 , including health problems of greater complexity involving multiple body systems. Concepts of rehabilitation and care of patients at the end of life are emphasized. The application of pharmacotherapeutic, legal and ethical aspects of care for adults and their families in various cultures and stages of development are included. Guided by established professional standards, guidelines, competencies, and best practices, clinical experiences provide learners the opportunity to apply psychomotor skills, psychosocial concepts, communication, legal and ethical responsibilities, and systematic problem-solving (nursing process) to provide safe, quality, patient-centered care for adult patients as individuals, families, and communities.

Prerequisite(s):

Corequisite(s): LPN 131 , LPN 132

LPN 131 - Maternal-Child Nursing

4 Credit(s)
This course focuses on the care of patients during the child-bearing cycle and during childhood developmental phases. Concepts of normal growth and development, as well as deviations from the normal, as a part of family life are emphasized. The effects of acute, chronic, and terminal health problems are considered with regard for impact on developmental tasks and family maintenance. Clincal experiences offer learners the opportunity to use established

professional standards, guidelines, competencies, and best practices to provide safe, patient-centered care to pregnanct women, infants, children, adolescents and their families.

Corequisite(s): LPN 130 , LPN 132

LPN 132 - Nursing and Healthcare II: Practice, Issues, Trends and NCLEX Review

3 Credit(s)
This course focuses on the role of the licensed practical/vocational nurse as a member of the profession, provider of patient-centered care, patient safety advocate, and member of the healthcare team. Legal/ethical responsibilities, preparation for employment, nursing organizations, continuing education, professional development, and lifelong learning are emphasized. NCLEX preparation and review will also be included.

Corequisite(s): LPN 130 , LPN 131

Total Credits (39)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

IMPORTANT PRE-REQUISTE REQUIREMENT INFORMATION:BIO 114 , BIO 115 , ENG 101 , and AHS 103 are all pre-requiste courses and as well as graduation requirements for the LPN Program. See your advisor to determine if you have met this requirement.

LPN to RN Bridge, A.A.S. Program

MAJOR CODE: 247

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The LPN to RN Bridge program is a hybrid/in seat program that focuses on the role development and transition of the LPN into the role of the RN. This program is aimed at LPNs who wish to further their education and earn an Associate Degree in Nursing (Nursing, A.A.S.) while continuing to work as a LPN.

The LPN to RN Bridge program starts in the summer semester with a 12-week LPN to RN Transition course, NUR 111. This is a demanding, fast-paced hybrid course which meets one day a week for 12 weeks for online didactic instruction with additional 45 hours of hands-on instruction in the lab, simulation and clinical settings. Students must be able to critically think and learn information in an accelerated manner. Once the student successfully completes the summer semester program of study requirements, the student will matriculate into the second year of the Associate Degree Nursing Program (See Nursing, A.A.S. catalog description). The LPN to RN Bridge Program incorporates courses such as anatomy and physiology, developmental psychology, microbiology, humanities and pharmacology in addition to the required nursing courses across the lifespan.

The LPN to RN Bridge program guides practice within the regulatory framework of professional, ethical, and legal responsibilities of the registered nurse and encourages lifelong learning. The program can be completed over three consecutive semesters. Faculty will use a variety of teaching strategies in the classroom, skills lab, clinical, and simulation lab to promote evidenced based practice and clinical judgement. Upon successful completion of the LPN to RN Bridge program and the achievement of an Associate Degree in Applied Science, the graduate will be able to apply for their RN licensure exam.

Pre-requisites for the program include ENG 101 and BIO 114 or BIO 220, an active unencumbered LPN license and a TEAS Test score of at least 58.

The Registered Nurse works to promote health, prevent disease, provide physical and emotional support to cope with illness and restore health. They provide direct patient care and are advocates and health educators for patients, families, and communities. Nurses are employed in the acute and long term care facilities or hospitals, physician office, home health, community, school, business, industry, and in private settings. They must be physically capable to spend considerable time walking and standing; be able to lift fifty pounds; and be required to mobilize quickly to respond to an emergency. Nurses need emotional stability and a caring philosophy in order to cope with human suffering, emergencies, and stress. Because patients in hospitals and facilities require 24-hour care, nurses in these institutions may work nights, weekends, and holidays.

End of Program Student Learning Outcomes

In addition to General Education Outcomes, graduates will be prepared to:

Human Flourishing Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient's individual values and needs.

Nursing Judgment Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.

2. Generate safe and effective patient centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the health care environment.

Professional Identity Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.

4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and the Code of Ethics.
5. Evaluate the utilization of health care system resources to efficiently and effectively manage care.

Spirit of Inquiry Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

6. Integrate current best practices to plan and implement safe and effective patient care.

Nursing education programs include classroom instruction, supervised and precepted clinical experience in hospitals and other health facilities, and community experiences. Students take courses in biological sciences, behavioral sciences, and liberal arts in addition to nursing courses. Students must complete the required nursing courses in the program on a continuous full-time basis within 2 years or a maximum of 3 years if an interruption in education continuum occurs. The program has a specific application, selection requirements, background and drug screening, standard of progress policies, requirement deadlines and abides by the WV State Board of Registered Nursing Education requirements for nursing education. Contact the Nursing Program Director for additional information. Upon the completion of this basic accredited nursing education and successful completion of the National Council Licensure Exam the student will apply to their selected state for license to practice.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees

and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Nursing Program Director.

CIP Code: 513801

Summer Semester (15/16 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

NURS 111 - LPN to RN Transition Course

6 Credit(s)
This course facilitates the transition of the LPN to the role of the associate degree nurse.

Prerequisite(s): LPN Licensure, ENG 101 , BIO 114, or BIO 220.
Corequisite(s): NURS 112
Pre/Corequisite(s): PSYC 208

NURS 112 - Clinical Applications in Nursing Practice

3 Credit(s)
This is a 3-hour course focusing on clinical applications of pharmacology in nursing practice. Students will utilize the nursing process to understand the correlation of medication effects with patient outcomes. The course will discuss actions, interactions, adverse effects, and nursing implications of drug classifications. Topics include the responsibilities of the nurse and safe administration of medications within a legal/ethical framework.

Prerequisite(s): BIO 114 or BIO 220 , NURS 132 , NURS 133 , NURS 134
Corequisite(s): NURS 142 and NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Fall Semester (13 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

NURS 234 - Nursing Concepts of Health and Illness II

9 Credit(s)
This course expands the concepts of the wellness-illness continuum, with emphasis on the expanding family and tertiary care within the community. Classroom and laboratory experiences provide opportunity for analysis within the nursing process and application of clinical judgment and decision making.

Prerequisite(s): BIO 115 or BIO 225 , NURS 144
Pre/Corequisite(s): BIO 117 , PSYC 208

Spring Semester (15 Credits)

NURS 245 - Professional Nursing and Health Systems Concepts

3 Credit(s)
This capstone course will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional registered nurse. Topics of discussion will include national health policy and politics, ethical and bioethical issues, career development, application for state licensure and preparation for the NCLEX-RN examination.

Prerequisite(s): NURS 234
Corequisite(s): NURS 244
Pre/Corequisite(s): Humanities Core Requirement (3)

NURS 244 - Synthesis of Nursing Concepts

9 Credit(s)
This course, together with the capstone course, focuses on the integration of interrelated concepts across the wellness-illness continuum. Classroom and laboratory experiences provide opportunity for synthesis of the nursing process and integration of clinical judgment and decision making.

Prerequisite(s): NURS 234
Corequisite(s): NURS 245
Pre/Corequisite(s): Humanties Core Requirement
Humanities Core Requirement ## 3 Credit Hours

Total Credits (61/62)*

*Approved Credit for Prior Learning accounts for 17-18 credits.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to the General Education Core Requirements for the Associate in Applied Science Program listed below for accepatble core requirements

Associate in Applied Science General Education Requirements

Medical Assisting, Administrative Medical Assistant, C.A.S.

Major Code: 163

Students selecting the Administrative Medical Assistant, CAS option will be provided training in administrative medical office procedures. Students successfully completing the program can test for the Certified Medical Administrative Assistant credential from the National Healthcareer Association (CMAA-NHA) and are eligible to apply for admission to the Clinical Medical Assistant Associate in Applied Science Degree Program at WVNCC.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Identify and differentiate the roles of the various members of the health care team.
- Differentiate administrative competencies and clinical competencies for the medical assistant post patient demographic and clinical information to the electronic health record.
- Produce medical insurance claims with an appropriate diagnostic and procedural coding according to the policies of private, state, federal and Workers' Compensation agencies.
- Demonstrate medical financial management skills, including, patient data entry, billing, insurance submission and standard financial accounting reports.
- Comprehend legal and ethical issues related to a career as a member of the health care team.
- Demonstrate knowledge of compliance related to HIPAA and OSHA Standards.
- Demonstrate an understanding of professionalism in the medical office setting.
- Demonstrate therapeutic communication techniques.

Occupations available for students completing program requirements include the following: medical office receptionist, medical office assistant, administrative medical assistant, and Certified Medical Administrative Assistant, and hospital admissions clerk. Graduates of this program can expect to obtain entry-level employment primarily in ambulatory care settings. According to the U.S. Department of Labor's Occupational Outlook, employment of administrative medical office employees is projected to grow 10 percent from 2014 to 2024.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board, and agencies which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Health Science Program Director.

Job Titles: Certified Medical Administrative Administrative Assistant (CMAA), Medical Office Assistant, Administrative Medical Assistant

Wage and Employment Trends:

- Annual Range Regionally $19,950 to $22,130 (Onet, 2017)
- 262,100 Projected National Growth Nationally (Onet, 2017)
- Certification Option: Certified Medical Administrative Assistant (CMAA) through National Healthcareer Association (NHA)

CIP Code: 510710

Fall Semester (16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MAS 150 - Introduction to Medical Administrative Procedures

3 Credit(s)
This course introduces the Medical Assisting profession with emphasis on the medical administrative competencies. Students explore the role of the Medical Assistant as a member of the health care team. Topics focus on therapeutic patient communications, the medical record, professionalism, community resources, office productivity, the application of HIPAA and OSHA standards and medicolegal issues.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MAS 125 - Basic Diagnostic and Procedural Coding

2 Credit(s)
This course introduces coding skills required for basic medical coding in physicians' offices and other ambulatory care settings. Emphasis is placed on the conventions of ICD diagnostic and CPT procedural coding, and appropriate selection of codes to demonstrate medical necessity.

Pre/Corequisite(s): AHS 103 and BIO 114.

MAS 151 - Medical Financial Management

2 Credit(s)
This course includes practical application of financial procedures in the medical practice including computerized financial processes, electronic insurance submission, reimbursement, patient billing, collections, and banking procedures.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and MATH 109 .

MAS 153 - Medical Insurance and Reimbursement Methodologies

2 Credit(s)
This course provides students with entry-level skills for completion and processing of medical insurance forms for financial reimbursement. Emphasis is on insurance terminology and the policies and procedures related to completion of insurance claims for private, state, federal, and Worker's Compensation providers.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Total Credits (30)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Medical Assisting, Clinical Medical Assistant, A.A.S.

Major Code: 161

Students entering the Clinical Medical Assistant Program will be trained in clinical procedures for entry-level employment in medical ambulatory care settings. Graduates are prepared for employment as "competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and effective (behavior) learning domains". Campus lab preparatory experiences and a 160-hour supervised and unpaid practicum afford students the opportunity for observation and hands-on training in outpatient medical procedures within the scope of practice of the Medical Assistant.

Upon completion of the program, graduates will be able to:

- Demonstrate entry-level competence as a medical assistant in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains consistent with the American Medical Technologists (AMT).
- Perform administrative and clinical duties as multi-skilled medical assistants including professionalism in interactions with patients, the college community, and during practicum experiences.
- Complete required competencies and national certifications to become Registered Medical Assistants.
- Apply effective communication, critical thinking, and problem-solving skills to provide care and support in the medical assisting profession.

Occupations available for students completing program requirements include Registered Medical Assistant positions primarily in ambulatory care settings. According to the U.S. Department of Labor's Occupational Outlook, employment of medical assistants is projected to grow 23 percent from 2014-2024, much faster than the average for all occupations. Medical Assisting is projected to be one of the fastest growing occupations due to the increasing numbers of group practices, clinics, and other health care facilities, especially for multi-skilled medical assistants trained in both administrative and clinical duties.

The WVNCC Medical Assisting: Clinical Medical Assistant, A.A.S Program is accredited by the American Medical Technologist (AMT). American Medical Technologist, 10700 West Higgins Rd, Suite 150, Rosemont, IL 60018, Phone 847-823-5169, www.americanmedtech.org. Graduates of this program can test for the Registered Medical Assistant credential from the American Medical Technologist RMA/AMT.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Health Science Program Director.

Job Titles: Clinical Medical Assistant, Certified Clinical Medical Assistant, Registered Medical Assistant

Wage and Employment Trends:

- Annual Range Regionally $22,000 to $26,000 (Onet, 2017)
- Projected job growth nationally 262,100 (Onet, 2017)
- Certification Options: Registered Medical Assistant (RMA) through American Medical Technologist or Certified Clinical Medical Assistant (CCMA) through National Healthcareer Association (NHA)

CIP Code: 510801

First Year

Fall Semester (16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MAS 150 - Introduction to Medical Administrative Procedures

3 Credit(s)
This course introduces the Medical Assisting profession with emphasis on the medical administrative competencies. Students explore the role of the Medical Assistant as a member of the health care team. Topics focus on therapeutic patient communications, the medical record, professionalism, community resources, office productivity, the application of HIPAA and OSHA standards and medicolegal issues.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MAS 125 - Basic Diagnostic and Procedural Coding

2 Credit(s)
This course introduces coding skills required for basic medical coding in physicians' offices and other ambulatory care settings. Emphasis is placed on the conventions of ICD diagnostic and CPT procedural coding, and appropriate selection of codes to demonstrate medical necessity.

Pre/Corequisite(s): AHS 103 and BIO 114.

MAS 151 - Medical Financial Management

2 Credit(s)
This course includes practical application of financial procedures in the medical practice including computerized financial processes, electronic insurance submission, reimbursement, patient billing, collections, and banking procedures.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and MATH 109 .

MAS 153 - Medical Insurance and Reimbursement Methodologies

2 Credit(s)
This course provides students with entry-level skills for completion and processing of medical insurance forms for financial reimbursement. Emphasis is on insurance terminology and the policies and procedures related to completion of insurance claims for private, state, federal, and Worker's Compensation providers.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Second Year

Fall Semester (14 Credits)

MAS 201 - Clinical Medical Assistant I

3 Credit(s)
This course introduces students to the clinical competencies required for medical assistants. Attention is given to patient preparation, assisting with patient care, medication administration, vital signs, basic specimen collection and testing, phlebotomy skills, and universal precautions. Emphasis is placed on working within the Scope of Practice for the Medical Assistant.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 , or MBC 100 , MBC 110 , MBC 125

Corequisite(s): MAS 202 and MAS 220.
Pre/Corequisite(s): PSYC 105 and MATH 115.

MAS 202 - Clinical Medical Assistant Skills Lab

2 Credit(s)
This course provides campus lab experience for application of theory learned in MAS 201. Students apply skills related to handwashing, autoclaving, sterilization techniques, and the handling of biohazardous materials. Additional emphasis is placed on assisting with direct patient care, phlebotomy skills, and medication administration.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 OR MBC 100 , MBC 110 , MBC 125
Corequisite(s): MAS 201 and MAS 220.
Pre/Corequisite(s): PSYC 105 and MATH 115.

MAS 220 - Medical Assisting Seminar I

3 Credit(s)
This seminar course reinforces administrative skills for Clinical Medical Assisting AAS students preparing for the Practicum Experience in a physician's office or other ambulatory care setting. Focus is on both theory and application of administrative procedures.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 OR MBC 100 , MBC 125 , MBC 110
Corequisite(s): MAS 201 and MAS 202.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (16 Credits)

MAS 210 - Clinical Medical Assistant II

3 Credit(s)
This lecture course is a continuation of theory taught in MAS 201. Students are provided the opportunity to review theory and to discuss in the classroom the application of theory and skills being simultaneously completed in the Practicum course (MAS 211).

Prerequisite(s): MAS 201, MAS 202, PSYC 105, MAS 220, MATH 115.
Corequisite(s): MAS 211 and MAS 221.
Pre/Corequisite(s): SPCH 101 or SPCH 105 , and PSYC 208.

MAS 211 - Clinical Medical Assistant Practicum

4 Credit(s)
This course provides students with a 160-hour supervised, unpaid practicum experience required for certification as a Medical Assistant. Students observe and/or practice administrative and clinical skills in the physician's office or other ambulatory care settings. Students apply skills including patient registration, insurance and billing processes, patient education, specimen collection, phlebotomy skills, medication administration and other patient care as permitted within the scope of the practice of the clinical medical assistant at Practicum sites.

Prerequisite(s): MAS 201, MAS 202, MAS 220, PSYC 105, MATH 115,
Corequisite(s): MAS 210 and MAS 221.
Pre/Corequisite(s): PSYC 208, and SPCH 101 or SPCH 105.

MAS 221 - Medical Assisting Seminar II

3 Credit(s)
This seminar course reinforces clinical skills for Clinical Medical Assisting AAS students participating in Clinical Practicum and preparing for the Certified Medical Assistant certification examination. Focus is on both theory and application of clinical procedures.

Prerequisite(s): MAS 201, MAS 202, MAS 220, PSYC 105, MATH 115.
Corequisite(s): MAS 210 and MAS 211.
Pre/Corequisite(s): PSYC 208, and SPCH 101 or SPCH 105 .

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Medical Billing and Coding, C.A.S.

Major Code: 261

Students selecting the Medical and Coding, C.A.S. program will be provided training in general and career-specific courses including medical terminology, anatomy and physiology, business math, medical insurance, diagnostic and procedural coding, computerized billing, accounts receivable, and reimbursement methodologies. Upon completion, students will sit for a nationally approved entry-level coding credential.

- Demonstrate knowledge of entry-level procedures related to health information management, medical reimbursement, and the revenue cycle.
- Demonstrate ability to select diagnostic and procedural codes with data extracted from the medical record.
- Demonstrate the ability to complete insurance claims providing all information required by insurance carriers.
- Demonstrate the ability to apply knowledge of accounts receivable processes.
- Complete work in the computerized billing system.
- Demonstrate knowledge of the application of legal and ethical standards to all aspects of the medical office.
- Demonstrate knowledge of application of HIPAA to all aspects of the medical office.
- Apply anatomy & physiology and medical terminology to medical billing and coding procedures.

Students successfully completing the Medical Billing and Coding, C.A.S. program qualify to apply to the Health Information Technology, A.A.S. program.

CIP Code: 510713

Fall Semester (15 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on

application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MBC 100 - Revenue Cycle Management I

3 Credit(s)
This course introduces students to the revenue cycle processes for inpatient, outpatient, and skilled care medical facilities. All components of the revenue cycle are covered including patient registration, medical billing and accounting processes, medical insurance and reimbursement methodologies.

Corequisite(s): MBC 110
Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

MBC 110 - Physician and Hospital Coding

3 Credit(s)
Students are introduced to basic ICD-10-CM diagnostic coding as well as CPT-4 and HCPCS procedural coding for inpatient, outpatient, and skilled care facilities. Emphasis is placed on the appropriate selection of codes to meet Medical Necessity standards for medical insurance claims. Codes are selected for Evaluation and Management, Surgery, and other medical diagnoses, prodecures, and supplies.

Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

Spring Semester (15 Credits)

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use

ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

MBC 125 - Revenue Cycle Management II

3 Credit(s)
This course is a continuation of MBC 100 . Focus is placed on the application of medical billing processes to include medical billing procedures and insurance claim requirements and processing for inpatient, outpatient, and skilled care facilities. Students demonstrate skills using an online medical office management system.

Prerequisite(s): MBC 100 and MBC 110
Pre/Corequisite(s): AHS 108, AHS 110, BIO 115, CIT 117, and MATH 115

Total Credits (30)

A minimum grade of "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Medical Laboratory Technology, A.A.S.

Major Code: 249

The Medical Laboratory Technology program prepares its graduates for employment in hospital, urgent care, physicians' office, research and industry laboratory settings. Examination and analysis of body fluids, tissues and cells play a crucial role in physician's ability to diagnose and treat disease. The medical laboratory technology program trains students to work in various areas of the clinical laboratory, including hematology, urinalysis, immunohematology (blood bank), microbiology, chemistry, and phlebotomy. Students collect blood samples, work with state of the art clinical laboratory instrumentation, perform clinical and microscope analysis of urine, crosss-match blood for transfusion, identify abnormal blood cells under the microscope and identify infectious bacteria-causing infection in various body locations. Upon completion of the accredited program, graduates will possess an associate of applied science degree and are eligible to take the American Medical Technologist (AMT) Board of Certification national certifying examination. Those passing the examination and certified as medical laboratory technicians (MLT-AMT).

Program Learning Outcomes:

1. Interpret patient and quality control test results for normal, abnormal, and critical values and take appropriate follow up action when necessary.
2. Operate and maintain laboratory instrumentation in the Phlebotomy, Hematology, Immunohematology, Chemistry, Microbiology, Immunology/Serology, and Coagulation areas of the clinical laboratory.
3. Demonstrate the clinical significance of laboratory results in the diagnosis and treatment of disease.
4. Interpret and recognize the aspects of a laboratory quality assurance program.
5. Communicate sufficiently to meet the needs of the laboratory and patient care.
6. Successfully pass a National Certification Exam (ASCP) in Medical Laboratory Technician.

Accreditation via the Higher Learning Commission

Higher Learning Commission
230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411
Phone: 800.621.7440 / 312.263.0456 | Fax: 312.263.7462

https://www.hlcommission.org/about-hlc/contact-us/

Trainee Licensure

West Virginia Office of Laboratory Services

167 11th Avenue

South Charleston, WV 25303

Ph. 304-558-3530

https://dhhr.wv.gov/ols/regulatory/Pages/Licensure.aspx

Board of Certification

American Medical Technologist

10700 West Higgins Rd, Suite 150
Rosemont, IL 60018

Ph. 847-823-5169

mail@americanmedtech.org

CIP Code: 51.1004

First Year

Fall Semester (15 Credits)

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

MLAB 111 - Introduction to Clinical Laboratory Science

2 Credit(s)
Introduction of the student to the profession of laboratory medicine. This includes: organizational structure of hospitals and laboratories; medical ethics; related medical terminology; quality assurance; laboratory safety; calculations and knowledge of the basic routine laboratory tests.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MLAB 112 - Laboratory Analysis and Calculations

2 Credit(s)
This course will prepare Medical Laboratory Science students to understand clinical analysis procedures such as spectrophotometry, creatinine clearance, body fluid cell counts, red blood cell indices, etc. and the calculations necessary to make chemical solutions and interpret quality control procedures.

Corequisite(s): MLAB 111, MLAB 131 , MLAB 132 , MLAB 133

MLAB 131 - Introduction to Hematology

2 Credit(s)
Introduction to venous and micro blood collection techniques, Introduction to basic hematology theory and laboratory procedures. College competency required in the performance of venous and micro blood collection, normal WBC differentials, Erythrocyte Sedimentation Rates, manual cell counts, and reticulocyte counts

Corequisite(s): MLAB 111 , MLAB 112 , and MLAB 133

MLAB 132 - Urinalysis and Body Fluids

2 Credit(s)
Body Fluid cell counts and chemical analysis, and basic urinalysis theory and procedures. College competency required in the performance of routine urinalysis, and CSF cell counts

Prerequisite(s): MLAB 131
Corequisite(s): MLAB 111 , MLAB 112 , and MT 133

MLAB 133 - Hematology I/Urinalysis Clinical Practicum

3 Credit(s)
Clinical practicum in Hematology and Urinalysis at an affiliated clinical agency. Clinical competency required in the performance of venous and micro blood collection, routine urinalysis, body fluid cell counts, normal WBC differentials, Erythrocyte Sedimentation Rates, manual cell counts, and reticulocyte counts.

Corequisite(s): MLAB 111 , MLAB 112 ,MLAB 131 , and MLAB 132

Spring Semester (14 credits)

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MLAB 135 - Advanced Hematology and Hemostasis

2 Credit(s)
Topics include:
Hematologic and cytochemical findings in anemias, leukemias and selected diseases; instrumentation; calculations; abnormal histogram and scattergram interpretation; basic theory in hemostasis and coagulation test procedures. College laboratory required with competency in hematology and coagulation procedures.

Corequisite(s): MLAB 140 , MLAB 145
Pre/Corequisite(s): MLAB 111

MLAB 140 - Immunohematology Concepts and Procedures

2 Credit(s)
Topics include humoral immune response; basic blood groups and types; direct and indirect antiglobulin tests; crossmatching; donor testing and selection; hemolytic disease of the newborn; Rh immune globulin candidacy testing; advanced coagulation tests; quality control. College laboratory required with competency in immunohematology procedures.

Prerequisite(s): MLAB 135
Corequisite(s): MLAB 145
Pre/Corequisite(s): MLAB 111

MLAB 145 - Hematology II and Immunohematology Clinical Practicum

3 Credit(s)
Clinical practicum in Advanced Hematology methods and instrumentation, abnormal WBC differentials, and Immunohematology methods at an affiliated clinical agency. Clinical competency hematology, coagulation, and immunohematology methods required.

Corequisite(s): MLAB 135, MLAB 140
Pre/Corequisite(s): MLAB 111

Summer Semester (3 Credits)

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

Second Year

Fall Semester (14 Credits)

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

CHEM 100 - Intro to General, Organic, and Biochemistry I

4 Credit(s)
This course provides an understanding of and appreciation for general, organic and biochemistry. Includes atomic and molecular structure, intermolecular and intramolecular forces, properties of matter, states of matter, solutions, principles of reactions (including acid-base, redox), and nuclear chemistry. This course contains a lecture and laboratory component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097

MLAB 213 - Clinical Microbiology, Immunology, and Serology

9 Credit(s)
Review of clinically popular specimen collection and plate reading techniques in medical microbiology; medias used for isolation and identification of microorganisms; study of key biochemical tests identifying commonly isolated pathogenic bacteria to genus/species; antibiotic sensitivity testing; etiologic agents of common bacterial/viral disorders; etiology, epidemiology, and diagnosis of clinically important pathogenic fungi and parasites; common instrumentation used in clinical microbiology laboratories; study of principles and procedures for diagnosis of pregnancy, infections, and immunologic diseases.

Prerequisite(s): MLAB 111 , MLAB 112 , MLAB 131 , MLAB 133 , MLAB 135 , MLAB 140 , MLAB 145

Spring Semester (17 credits)

CHEM 101 - Intro to General, Organic, and Biochemistry II

4 Credit(s)
Continuation of CHEM 100. Emphasis is on organic and biochemistry. Topics include nomenclature; structure classification and typical reactions of organic compounds; and properties, synthesis, and metabolism of carbohydrates, lipids, nucleic acids, and proteins. Role of enzymes, hormones, vitamins, and drugs is also discussed. This course contains a lecture and a lab component.

Prerequisite(s): CHEM 100 with a C or better

MLAB 221 - Clinical Chemistry

10 Credit(s)
Chemistry for Clinical Laboratory Science students will include carbohydrate and nonprotein nitrogen metabolism, water and electrolyte balance, trace elements, blood gases, liver function tests, protein metabolism, enzymology, renal function tests, lipid metabolism, abnormal hemoglobins, endocrinology, therapeutic drug monitoring and toxicology. Instrumentation and correlation of laboratory data to human disease. Clinical and college laboratory required with competency in accurate/precise measurement of organic and inorganic analyses in body fluids.

Prerequisite(s): MLAB 213

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Total Credits (63)

Total Credits (63)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Nursing, A.A.S.

Major Code: 250

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The Registered Nurse works to promote health, prevent disease, provide physical and emotional support to cope with illness and restore health. They provide direct patient care and are advocates and health educators for patients, families, and communities. Nurses are employed in the acute and long term care facilities or hospitals, physician office, home health, community, school, business, industry, and in private settings. They must be physically capable to spend considerable time walking and standing; be able to lift fifty pounds; and be required to mobilize quickly to respond to an emergency. Nurses need emotional stability and a caring philosophy in order to cope with human suffering, emergencies, and stress. Because patients in hospitals and facilities require 24-hour care, nurses in these institutions may work nights, weekends, and holidays.

End of Program Student Learning Outcomes

In addition to General Education Outcomes, graduates will be prepared to:

Human Flourishing Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient's individual values and needs.

Nursing Judgment Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.

2. Generate safe and effective patient centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the health care environment.

Professional Identity Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.

4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and the Code of Ethics.
5. Evaluate the utilization of health care system resources to efficiently and effectively manage care.

Spirit of Inquiry Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

6. Integrate current best practices to plan and implement safe and effective patient care.

Nursing education programs include classroom instruction, supervised and precepted clinical experience in hospitals and other health facilities, and community experiences. Students take courses in biological sciences, behavioral sciences, and liberal arts in addition to nursing courses. Students must complete the required nursing courses in the program on a continuous full-time basis within 2 years or a maximum of 3 years if an interruption in education continuum occurs. The program has a specific application, selection requirements, background and drug screening, standard of progress policies, requirement deadlines and abides by the WV State Board of Registered Nursing Education requirements for nursing education. Contact the Nursing Program Director for additional information. Upon the completion of this basic accredited nursing education and successful completion of the National Council Licensure Exam the student will apply to their selected state for license to practice.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Nursing Program Director.

Pre-requisites for the program include ENG 101 and a TEAS Test score of at least 58.

CIP Code: 513801

First Year

Fall Semester (14/15 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

Or

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

NURS 132 - Drug and Dosage Calculations I

1 Credit(s)
This course is designed to enhance the nursing student's ability to read, interpret, and solve dosage calculation problems. Critical thinking skills are applied to medication situations to emphasize the importance of accuracy and the avoidance of medication errors.

Prerequisite(s): ENG 101
Corequisite(s): NURS 134, NURS 133.
Pre/Corequisite(s): BIO 114 or BIO 220

NURS 133 - Health Assessment and Diagnostics

2 Credit(s)
This course is designed to introduce the nursing student to the knowledge and skills required to perform a health assessment across the lifespan and to document appropriate findings. The nursing student will be introduced to normal lab values and basic diagnostic procedures.

Prerequisite(s): ENG 101

Corequisite(s): NURS 134, NURS 132
Pre/Corequisite(s): BIO 114 or BIO 220

NURS 134 - Introduction to Nursing Concepts

8 Credit(s)
This foundational course is designed to introduce concepts to the beginning nursing student that will focus on maintaining health and promoting wellness throughout the lifespan. Concepts and core values basic to the foundation of nursing practice are presented. Classroom and laboratory experiences provide opportunity for understanding of the nursing process, clinical judgement and decision making.

Prerequisite(s): ENG 101
Corequisite(s): NURS 132, NURS 133.
Pre/Corequisite(s): BIO 114 or BIO 220

Spring Semester (16/17 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

NURS 112 - Clinical Applications in Nursing Practice

3 Credit(s)
This is a 3-hour course focusing on clinical applications of pharmacology in nursing practice. Students will utilize the nursing process to understand the correlation of medication effects with patient outcomes. The course will discuss actions, interactions, adverse effects, and nursing implications of drug classifications. Topics include the

responsibilities of the nurse and safe administration of medications within a legal/ethical framework.

Prerequisite(s): BIO 114 or BIO 220 , NURS 132 , NURS 133 , NURS 134
Corequisite(s): NURS 142 and NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

NURS 142 - Drug and Dosage Calculations II

1 Credit(s)
This course expands the nursing student's ability to read, interpret, and solve increasingly complex dosage calculation problems. Critical thinking skills are applied to age and acuity specific variations in select populations.

Prerequisite(s): BIO 114 or BIO 220, ENG 101, NURS 132, NURS 133, NURS 134.
Corequisite(s): NURS 112 , NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

NURS 144 - Nursing Concepts of Health and Illness I

9 Credit(s)
This course is builds upon foundational concepts across the lifespan while introducing the concepts of the wellness-illness continuum and the individual and family response. Classroom and laboratory experiences provide opportunity for application of the nursing process and development of clinical judgment and decision making.

Prerequisite(s): BIO 114 or BIO 220 , ENG 101 , NURS 132 , NURS 133 , NURS 134.
Corequisite(s): NURS 112 , NURS 142
Pre/Corequisite(s): BIO 115 or BIO 225

Second Year

Fall Semester (16 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

NURS 234 - Nursing Concepts of Health and Illness II

9 Credit(s)
This course expands the concepts of the wellness-illness continuum, with emphasis on the expanding family and tertiary care within the community. Classroom and laboratory experiences provide opportunity for analysis within the nursing process and application of clinical judgment and decision making.

Prerequisite(s): BIO 115 or BIO 225 , NURS 144
Pre/Corequisite(s): BIO 117 , PSYC 208

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

Humanities Core Requirement ## **Credits / Units:** 3

NURS 244 - Synthesis of Nursing Concepts

9 Credit(s)
This course, together with the capstone course, focuses on the integration of interrelated concepts across the wellness-illness continuum. Classroom and laboratory experiences provide opportunity for synthesis of the nursing process and integration of clinical judgment and decision making.

Prerequisite(s): NURS 234
Corequisite(s): NURS 245
Pre/Corequisite(s): Humanties Core Requirement

NURS 245 - Professional Nursing and Health Systems Concepts

3 Credit(s)
This capstone course will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional registered nurse. Topics of discussion will include national health policy and politics, ethical and bioethical issues, career development, application for state licensure and preparation for the NCLEX-RN examination.

Prerequisite(s): NURS 234
Corequisite(s): NURS 244
Pre/Corequisite(s): Humanities Core Requirement (3)

Total Credits (60)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Occupational Development, A.A.S.

Northern recognizes training from approved U.S. Department of Labor Bureau of Apprenticeship Training (BAT) programs towards an associate degree. Required courses of study for eligible programs are determined by agreements between the College and the apprenticeship program. Individuals must be enrolled in or have completed the approved apprenticeship program in order to be eligible to enroll in this program.

Those BAT apprenticeship programs which are currently available for the occupational development program are:

- Building and Construction Trades with the Upper Ohio Valley Building and Construction Trades Council AFL-CIO. **Major Code: 403**
- Child Development Specialist with Northern Panhandle Apprenticeship Council. **Major Code: 404**
- Plumbers and Steamfitters with Wheeling Plumbers and Steamfitters Joint Apprenticeship Committee. **Major Code: 402**

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Demonstrate an understanding of technical skills required in the specific occupational area through the successful completion of an approved apprenticeship training program.

There are three components to the program:

1. General education courses are offered by the College.
2. Technical specialty courses, including classroom instruction required by the specific apprenticeship program, which may be supplemented by college courses in some cases.
3. On-the-job training is part of the apprenticeship program and is awarded credit under agreements negotiated by the partners.

Specific agreements, which list course requirements for each component are available from the College Counselors or the Vice President of Economic and Workforce Development.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP Code: 309999

General Education Core Requirements

Associate in Applied Science General Education Requirements

Patient Care Technician, C.A.S.

Major Code: 260

The Patient Care Technician is a program which prepares a medical professional to perform hands on basic medical services, help those who are ill or injured, obtain EKG and vital signs, collect specimens, perform phlebotomy procedures, and assist individuals who need help with daily activities. This program allows for testing for three certifications through NHA: Patient Care Technician (PCT), Phlebotomy Technician (CPT) and EKG Technician

(CET). There is a growing need for patient care throughout all segments of the health care industry. Patient care technicians work under the supervision of a provider and have direct patient contact as a member of the health care team. Employment opportunities may include assisted living facilities, Urgent Care Clinics, Community Health Agencies, Home Health Services, Hospitals, Laboratories, Long-term Care Facilities, Medical Centers, Nursing Homes, Physical Therapy Departments, Physician Offices, and Rehabilitation Centers. Students learn from instructors who work in the health care field and understand what it takes to provide top quality health care. Patient care students learn skills in a medical lab on campus which replicates the medical care environment.

In addition to General Education Outcomes, upon completion of this program, graduates will:

- Perform basic patient care skills
- Apply infection control and safety measures in health care setting
- Provide legal and ethical care consistent with National Health Care Association (NHA) standards
- Perform basic venipuncture technique to NHA standards
- Perform basic EKG technique and interpretation to NHA standards
- Communicate effectively and appropriately in interactions with patients and as a member of the health care team when providing basic patient care

Students must complete PCT I & PCT II prior to being eligible to take Patient Care Technician Certification exam.

CIP Code: 513902

Fall Semester (15/16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PCT 101 - Patient Care Technician I

5 Credit(s)
This course is designed to prepare students for the Patient Care Technician role in health care settings. The learner is introduced to basic nursing care, basic home health care, resident rights, safety and emergency nursing procedures. Principles of therapeutic relationships and client care are presented as well as the legal/ethical issues related to the patient care technician. Emphasis is on the personal qualities, knowledge, and skills needed by the PCT to give quality basic nursing care under supervision of registered nurses and independent assistant to the patient in home setting. This

course provides instruction in basic nursing skills through lecture and campus laboratory. Major topics include legality and promotion of patient rights, communications, infection control, measurement of basic body functions, effect of aging and disease on body systems, measures to promote independence and rehabilitation, specimen collection, nutrition, and elimination assistance. Because this is a skills-based course, classroom and laboratory attendance is mandatory.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- Restricted Electives **3 Credit(s)** **
- Science Core Requirement **3(4) Credit(s)***

Spring Semester (14/16 Credits)

- Math Core Requirement **3(4) Credit(s)**
- Electives **2(3) Credit(s)**

PCT 151 - Patient Care Technician II

6 Credit(s)
This course is designed to teach the knowledge and skills required to become certified in both Phlebotomy and Electrocardiography. Students will be taught the principles of quality control, infection control, safety procedures, pathology, medical terminology, and the legal and ethical aspects of patient care. This course includes classroom instruction and campus laboratory skills practice. The Phlebotomy portion of the class will teach the duties associated with the practices of venipuncture, capillary puncture, and special collection procedures. The Electrocardiography portion will prepare students to perform EKG's, interpret cardiac rhythms, and provide information on the structure and function of the heart with emphasis on electrophysiology.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- Restricted Electives **3(4) Credit(s)*****

Total Credits (30/32)

*Science Core Requirement: BIO 130, BIO 114, BIO 220

**Restricted Electives: SPCH 101, SPCH 105, CIT 117, PSYC 105, PSYC 208

***Restricted Electives BIO 115, BIO 225, AHS 108, SPCH 101, SPCH 105, CIT 117, PSYC 105, PSYC 208

It is recommended that students take BIO 115 or 225 in the spring semester if completing BIO 114 or 220 in the fall semester.

A minimum of a "C" grade is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

PC Technician Microcredential

The PC Technician Microcredential prepares learners for entry-level roles in IT support by building core skills in operating systems, hardware, networking, and troubleshooting. Through hands-on coursework aligned with CompTIA A+ and Network+ competencies, students learn to assemble and configure computers, diagnose technical issues, secure systems, and support end users in modern IT environments. This short, stackable credential is ideal for career changers, entry-level job seekers, and students pursuing IT pathways who want a fast, industry-aligned route into the technology workforce.

Upon completion, graduates will be able to:

1. Demonstrate competency in one of the fundamental concepts including and not limited to operating systems, hardware and software applications.
2. Demonstrate competency in using one or more of the following including and not limited to hardware and software components of a computer.
3. Apply problem-solving and critical thinking skills.
4. Troubleshoot issues in computer applications.
5. Apply principles of building, repairing, documenting and upgrading components or applications of a computer.

Fall Semester

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

Spring Semester

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations, operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

Total Credits (12)

Pre-Engineering, A.S.

Major Code: 246

This degree is designed to prepare engineering students by building foundational engineering skills. This program is to prepare qualified students to transfer into four year engineering programs.

Pre-Engineering outcomes:

1. Apply principles of engineering, science, and mathematics to identify, formulate, and solve complex engineering problems.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Make informed judgments based on ethical and professional responsibilities in engineering situations with consideration for the impact of engineering solutions in global, economic, environmental, and societal context.
4. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
5. Draw conclusions based on developing and conducting appropriate experimentation, analysis and interpretation of data and using engineering judgment.

CIP Code 140102

Semester One (15 Credits)

CHEM 108 - General Chemistry I

4 Credit(s)
This course is the first semester of a two-semester sequence in general college chemistry. The course is a study of the metric system, scientific mathematics, atomic structure, chemical bonding, gases, solution and chemical equilibrium. This course includes both a lecture and lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 101 or MATH 108 or MATH 115

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 110 - Pre-Calculus Mathematics

5 Credit(s)
This course is an integrated approach to algebra and trigonometry preliminary to the study of calculus. The course includes sets and the real number system, relations and functions, graphs of relations and functions, polynomials, rational functions, exponential and logarithmic functions, trigonometric functions and complex numbers.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Semester Two (15 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
or

CHEM 109 - General Chemistry II

4 Credit(s)
This course is a continuation of CHEM 108 with an investigation of selected metals and nonmetals, electrochemistry, nuclear chemistry, thermodynamics, ionic equilibria, acids and bases, kinetics and an introduction to organic chemistry. The laboratory includes some semi-micro qualitative analysis as well as experiments on the above topics. This course includes both a lecture and lab component.

Prerequisite(s): CHEM 108.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

ENGR 100 - Introduction to Engineering Applications

3 Credit(s)
Introduction to engineering degree programs. Orientation to basic problem solving of engineering applications using algebra and trigonometry.

Pre/Corequisite(s): MATH 110 or MATH 279

MATH 279 - Calculus I

5 Credit(s)
This course consists of material typically included in the first semester of a three-semester sequence in differential and integral calculus. The course includes the review of the prerequisite algebra skills, limits and continuity, the derivative of algebraic and trigonometric functions and applications of the derivative. Additional topics covered include the development and application of the differential and of the indefinite and definite integral.

Prerequisite(s): MATH 110 or with permission of instructor.

Semester Three (16 Credits)

ENGR 101 - Engineering Problem Solving I

2 Credit(s)
This course is project-based course that provides a foundation in fundamental skills needed for beginning engineering students to academically succeed and professionally prepare for challenges in a technologically changing world. Students will apply mathematics to solve engineering problems, develop team working skills, practice written and verbal communication skills, strengthen problem solving and design skills, and use a computer as a tool for analysis, design and communication.

Prerequisite(s): MATH 279
Pre/Corequisite(s): ENG 101

MATH 280 - Calculus II

4 Credit(s)
This course is a continuation of MATH 279 with a continued study of the applications of the definite integral. Additional topics covered include logarithmic, exponential, trigonometric and hyperbolic functions; techniques of integration; polar coordinates; the conic sections and indeterminate forms.

Prerequisite(s): MATH 279.

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .
or

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PHYS 120 - Calculus-Based Physics I

4 Credit(s)
This is a calculus-based introductory physics course in mechanics for science, mathematics, and engineering students. Topics include kinematics, dynamics, momentum, energy, and applications of Newton's Laws. This course contains both a lecture and lab component.

Pre/Corequisite(s): MATH 279

- Humanities Core **3 Credit(s)**

Semester Four (16 Credits)

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 232 - Introduction to Programming Logic

3 Credit(s)
This course introduces students to a high level programming language and the logic and control structures that are the foundations of computer programming. Variables, assignment, subroutines, data types and basic object oriented programming will be explored and used to develop simple applications.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENGR 102 - Engineering Problem Solving II

3 Credit(s)
This is a project-based course to prepare students for an engineering career. Students will apply mathematics to solve engineering problems, acquire and refine team working skills, practice written and verbal communication skills, enhance problem solving and design skills, and use a computer as a tool for analysis, modeling, design, and communication. This is the second part of a two course series.

Prerequisite(s): ENGR 101 and MATH 279

MATH 281 - Calculus III

4 Credit(s)
This course is a continuation of MATH 280. Topics covered include infinite series, vector calculus and differential calculus of several variables and multiple integrations.

Prerequisite(s): MATH 280.
or

PHYS 121 - Calculus-Based Physics II

4 Credit(s)
Physics 121 is the second semester of a calculus-based physics sequence for science, mathematics, and engineering students. The course covers the nature of waves and electrical and magnetic phenomena, including concepts of electrical charges, electric fields and the application of Gauss' Law, electric potential, conductors and insulators, currents, basic circuits.

Prerequisite(s): PHYS 120 and MATH 279
Pre/Corequisite(s): MATH 280

Total Credits (62)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

NOTE: A grade of "C" or higher is required in all courses for transfer to some institutions.

*ECON 105 is required for the Industrial Engineering Track at WVU.

General Education Core Requirements

Associate in Science General Education Core Requirements

Psychology 2+2 to WU, A.A.

Transfer to Wheeling University

Major Code: 165

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at one institution and finishes a Bachelor degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in 2 (Associate) or 4 (Bachelor) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in 4 years.

Further, 2+2 articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under a 2+2 program.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WU, they will receive a Bachelor of Science Degree in Psychology.

In addition to the WVNCC courses, applicants for admission to WU need to have an overall grade point average of 2.3 and meet other admissions requirements of WU to be eligible under the 2+2 program.*

In addition to General Education Outcomes, students successfully completing and receiving an A.A. degree under the 2+2 agreement with WU Psychology should be able to:

- Demonstrate knowledge of the history of the field of psychology and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in psychology.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the psychology profession.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of psychological services.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.

Students are encouraged to meet with a member of the Psychology faculty at WU early in their program of study at WVNCC to obtain information and counseling concerning the Psychology program.

Important Note: Students should be aware that the Bachelor of Arts degree in Psychology from WU does not qualify students for any kind of licensure. Students who are interested in becoming licensed social workers, licensed psychologists, or licensed professional counselors have to complete a Bachelor and/or Master's degree in a field that is license eligible. Consult with an academic advisor for questions related to this note.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees

and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** +

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Elective **3 Credit(s)** ++

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

or

BIO 113 - Animal Biology

4 Credit(s)
This course is an introduction to the functioning of organ systems including the problems being solved by the system. Both vertebrate and invertebrate animals are considered. Animal development and evolution are included. Animal diversity, evolutionary relationships and the role of animals in their environments are emphasized. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101. BIO 110 is not a prerequisite for this course.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- HUM - Fine Arts Core requirement **3 Credit(s)** **

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- Elective **3 Credit(s)** ++

Spring Semester (15 Credits)

- HUM - Humanities Literature core requirement **3 Credit(s)** ***

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential

relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

Total Credits (62)

* Minimum grade of "B" required for this course. For all other transfer courses, a minimum grade of "C" is required.

** Choose from: ART 150 or MUS 105.

*** Choose from: ENG 200, ENG 201, ENG 210, or ENG 211.

+ Choose from: HIST 100 or HIST 101

++ Although electives may be chosen from any three-credit course, recommended electives include: CIT 117, HS 147, HS 150, HS 210, or PSYC 155.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Psychology with Social Work, A.A. (Transfer to West Liberty University)

Major Code: 345

Note: This program is through a transfer agreement in which a student completes an Associate's degree at one institution and finishes a Bachelor's degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in two (Associate's) or four (Bachelor's) years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Important Note: Students should be aware that the Bachelor of Sciences degree in Psychology with a Social Work minor from WLU does not qualify students for any kind of licensure. Students who are interested in becoming licensed psychologists, or licensed professional counselors have to complete a Bachelor's and Master's degree in a field that is license eligible at the Master's degree level. Consult with an academic advisor for questions related to this note.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will receive a Bachelor's of Science Degree in Psychology with a Social Work minor.

In addition to the WVNCC courses, applicants for admission to WLU need to have an overall grade point average of 2.0 and meet other program admissions requirements of WLU to be eligible for this program. Students must also complete a separate application for the Department of Psychology and fulfill other program admissions requirements. Students should consult with an advisor and members of the psychology faculty at the transfer institution to check on this and other requirements for admission to the baccalaureate program.*

Students successfully completing and receiving an AA degree under this agreement with WLU in Psychology should be able to:

- Demonstrate knowledge of the history of the psychology and social work profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in psychology and social work.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the psychology and social work professions.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the

transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)***

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- HUM - Humanities Restricted Elective **3 Credit(s)****

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Total Credits (62)

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

**Choose from: ART 150 or MUS 105

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Radiography, A.A.S.

Major Code: 148

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The most familiar use of the x-ray is the diagnosis of broken bones. Today's radiologic technology includes the use of radiation for diagnostic and therapeutic procedures. Imaging techniques that use Ultrasound, Computerized Tomography, and Magnetic Resonance Imaging (MRI) are growing rapidly. Hospitals are the principal employers of radiologic technologists, but new opportunities now exist in clinics, physician offices and Diagnostic Imaging Centers. The United States Department of Labor, Bureau of Statistics indicates that employment for radiologic technologists is expected to grow faster than average through the year 2026.

The West Virginia Northern Community College Radiography Program Goals state that upon successful completion of the program, the graduate will...

1. Demonstrate the competency level & patient care skills & knowledge of an entry-level technologist.

2. Identify the core didactic concepts of an entry-level technologist.

3. Display abilities in critical thinking, & problem-solving skills necessary for professional practice.

4. Develop effective communication skills throughout their career.

5. Exhibit professional values & life-long learning.

6. Be an entry-level functioning technologist in the healthcare community.

*Academic Degree Requirement effective 2015 for primary certification - Eligibility requirements for American Registry of Radiologic Technologists (ARRT) certification in Radiography, Nuclear Medicine Technology, and Radiation Therapy and for the primary pathway to MRI and Sonography will - effective January 1, 2015 - call for candidates to have earned an associate (or more advanced) degree from an accrediting agency recognized by ARRT. ARRT believes that the general education courses required for an academic degree will provide a firm foundation to support the evolving role of the technologist and the lifelong learning necessitated by the increasing rate of technological change. Quantitative and communication skills and understanding of human behavior that are acquired through general education classes are believed by ARRT to have value in continuing to shape professionalism and advancement of a Registered Technologist's role in health care. The degree will not need to be in radiologic sciences, and it can be earned before entering the educational program or after graduation from the program.

** Successful completion of and graduation from the WVNCC Radiography Program will meet the academic degree eligibility requirements for the ARRT certification. WVNCC Radiography Program graduates do NOT have to attend a hospital-based certificate program to receive their A.A.S. degree in Radiography.

Go to www.arrt.org for further details.

Job Titles: Radiographer, Radiologic Technologist (RT), Radiological Technologist, Radiology Technologist, Staff Technologist, X-Ray Technologist, Computed Tomography Technologist (CT Technologist), Mammographer, Mammography Technologist.

Wage and Employment Trends:

- Average Salary $77,660 (Onet 2024)
- 4% Projected growth (Onet, 2024)
- Certification Options: ARRT (American Registry of Radiologic Technologists)

CIP Code: 510911

First Year

Fall Semester (16 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

RAD 100 - Introduction to Radiography

2 Credit(s)
This course will give a history of Radiography as well as aspects of hospital organization and accrediting agencies. It will define credentialing and professional organizations, discuss medical ethics and law, and identify members of the health care team. Basic radiation protection and specific radiographic terminology will be explained, along with cultural diversity, Maslow's Hierarchy, and the Grieving Process.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 105, RAD 110, RAD 115 and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 105 - Radiography I

2 Credit(s)
Image formation and x-ray beam production will be explained in this course. The basics of Density, Detail, Contrast, and Distortion will be thoroughly covered, as well as their controlling factors. Basic problem solving will also be practiced.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 100, RAD 110, RAD 115, and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 110 - Radiation Protection/Radiobiology I

2 Credit(s)
This course explains the fundamental principles of radiobiology. Students will review molecular and cellular biology. The radiosensitivity and response of tissues will be taught. Early and late effects of radiation will be covered.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 115, RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 115 - Clinical Fundamentals I

1 Credit(s)
This course will introduce the new health care student to general information necessary to enter the clinical setting. The following entry level clinical skills will be explained in both theory and practice: proper patient transfer, proper body mechanics, retrieving patient history, communication techniques, and basic radiographic terminology and anatomy. Critical thinking skills will be introduced.

Prerequisite(s): Admission to the Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 110 and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 120 - Radiography Procedures I

3 Credit(s)
This course will introduce the radiology student to basic body planes, positions, equipment, patient preparedness, and terms associated with performing exams on patients in the clinical setting. Anatomic areas to be studied include the following: chest, abdomen, extremities, and pediatric imaging. Students will study and review topics in the classroom setting, along with practice simulations and grading in the campus lab setting. Basic positioning proficiency will also be tested at the conclusion of this course.

Prerequisite(s): Admission to the Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 110 and RAD 115.
Pre/Corequisite(s): BIO 114, ENG 101ENG 101

Spring Semester (16 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Math Core Requirement (3 Credits)

RAD 125 - Clinical Practice I

1 Credit(s)
This course introduces and incorporates practical experience in a variety of clinical settings such as offices, hospitals, and clinics. The student will begin to acquire competencies in general patient care activities, mandatory and elective radiologic procedures, and general clerical procedures necessary in each setting. Students will observe, assist, and then perform basic procedures. Competencies will be limited to only material covered in current or past RAD courses.

Prerequisite(s): BIO 114, ENG 101, RAD 100, RAD 105, RAD 110, RAD 120, RAD 115.
Corequisite(s): RAD 155, RAD 160, RAD 170, RAD 165.
Pre/Corequisite(s): BIO 115,MATH Core Requirement.

RAD 155 - Radiography II

3 Credit(s)
This course is a continuation of RAD 105 - Radiography I. Beam filtration and beamlimiting devices such as collimators will be described. Grids, manual settings vs. AEC, H & D Curves, and technique charts will be explained. The fundamentals of radiologic science will be discussed in this course, along with the structure of matter and atoms, and electromagnetic energy and electromagnetism. X-ray production, the interactions of photons with matter, and the basics of the x-ray tube will be taught.
Pre-Requisite:

Admission to the Radiography Program

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.
Corequisite(s): ENG 101 RAD 125, RAD 160, RAD 165 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 160 - Radiation Protection/Radiobiology II

2 Credit(s)
As a continuum of Radiation Protection/Radiobiology I, this course will expand on radiation units and the types and sources of radiation. Effective absorbed dose equivalents will be identified. Health physics and the cardinal principles of protection will be explained. Surveys and regulations, regulatory and advisory agencies, patient and occupations radiation dose management, as well as personnel monitoring will be covered.

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.
Corequisite(s): RAD 125, RAD 155, RAD 165 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 165 - Clinical Fundamentals II

1 Credit(s)
This course will enforce the basic skills previously learned in RAD 115 - Clinical Fundamentals I, and build on the clinical skills necessary for students to grow in the clinical setting. The following new information will be introduced: portable radiography and its challenges, radiography in the operating room setting, infection control / isolation, along with tubes, catheters, and ostomies. General information regarding trauma patients in the radiographic setting will also be introduced. Continuation of radiographically pertinent terminology and anatomy will be further discussed along with additional critical thinking skills.

Prerequisite(s): BIO 114, ENG 101 RAD 100, RAD 105, RAD 110, RAD 120 and RAD 115.
Corequisite(s): RAD 125, RAD 155, RAD 160 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 170 - Radiography Procedures II

3 Credit(s)
This course will continue the progression of radiographic exams and the proper patient positioning necessary to obtain acceptable radiographic images learned in RAD Procedures I. Mobile and trauma radiography will be studied, as well as the following anatomic areas: complete upper extremity, shoulder girdle, lower extremity, pelvic girdle, and long bone measurement. Students will study and review topics in the classroom setting along with practice simulations and grading in the campus lab setting. Basic image evaluation proficiency will be tested at the conclusion of this course.

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 120 and RAD 115.
Corequisite(s): RAD 125, RAD 155, RAD 160 and RAD 165.
Pre/Corequisite(s): BIO 115, Math Core Requirement.

Summer Semester (1 Credits)

RAD 175 - Clinical Practice II

1 Credit(s)
This course is a continuation of clinical experience; increased performance expectations while dealing with patients is

gained by this course. The student will continue the competencies for both general patient care activities and radiologic procedures. Competencies will be limited to only material covered in current or past RAD courses.

Prerequisite(s): BIO 115, MATH Core Requirement, RAD 155, RAD 160, RAD 170, RAD 165.
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (14 Credits)

RAD 195 - Clinical Practice III

1 Credit(s)
This course is a continuation of clinical experience; increased performance expectations while dealing with patients is gained by this course. Increased clinical time will allow student to gain much needed experience and the opportunity to acquire the necessary competencies. With a smaller RAD course load during this semester, students will have ample time to complete this increased clinical experience. This increase in clinical experience will allow the student to gain much needed exam practice, exam competencies, and improve upon clinical skills. Competencies will again be limited to only material covered in current or past RAD courses.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 205, RAD 210, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 205 - Radiography III

3 Credit(s)
The third course in this four part series will focus on the principles of imaging and display of Computed Radiography and Digital Radiography. Quality Assurance, maintenance, types of image receptors, image acquisition errors, and software processing will all be identified in the course. This course will focus primarily on the x-ray circuit and radiographic equipment. Single and three-phase circuitry, along with image-intensified fluoroscopy will be studied. This course will also allow time for the student to take a monthly Review Test.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 210, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 210 - Advanced Imaging Modalities

2 Credit(s)
Specialized modalities in the field of dianostic imaging will be explored in this course.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 215 - Clinical Fundamentals III

2 Credit(s)
This course will reinforce basic clinical fundamentals while giving the student more complex clinical knowledge and hands on skills. This course will address the following information: vital signs, patient lab information, contrast media, and venipuncture in relation to radiographic examinations. Venipuncture will be practiced and performed utilizing a "dummy" arm as well. This course will again reinforce critical thinking, terminology, and anatomy as it specifically pertains to radiography.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 210, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 220 - Radiography Procedures III

3 Credit(s)
This course will continue the progression of radiographic exams. More complex anatomic areas will continue to be studied such as the following: alimentary canal, as well as the urinary and reproductive systems. Students will be encouraged to independently study information regarding the various ancillary areas of the radiology field such as Ultrasound, Nuclear Medicine, CT Scanning, MRI, Radiation Oncology, and Cardiac Catheterization in preparation for clinical rotations in these areas during their final semester. Advanced positioning proficiency will be tested at the conclusion of this course.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 210, RAD 215.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (14 Credits)

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

RAD 225 - Clinical Practice IV

2 Credit(s)
A continuation of clinical experience with increased performance expectations while dealing with patients is gained by this course. The student will complete the competencies for both general patient care activities and radiologic procedures. Competencies will be limited to only material covered in current or past RAD courses. Students will be introduced to more complex exam procedures, specific ancillary areas.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 205, RAD 210, RAD 215, RAD 220, RAD 195.
Corequisite(s): RAD 255, RAD 260 ,RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 255 - Radiography IV

2 Credit(s)
The final installment in this continuing course will explore Radiographic Pathology and how it affects technique. QA/QM of the equipment will be discussed, as well as an overview of mathematical applications. This course will also explain the principles of Computed Tomography, including generations, components, operations, processes, and radiation protection. Time will be allotted for the student to take a monthly Review Test.

Prerequisite(s): RAD 195, RAD 205, RAD 210, RAD 215, RAD 220, SPCH 101 or SPCH 105.
Corequisite(s): RAD 225, RAD 260, RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 260 - Radiography Career Prep

3 Credit(s)
This course is designed for the student who is preparing to graduate and enter the workforce. Resume and interview tips will be part of the discussion, along with state license requirements. A thorough Registry Review will be conducted during the course. The student will be allotted time to work on an Online Registry Review Program. In addition, a research paper will be part of the course requirement.

Prerequisite(s): RAD 195, RAD 205, RAD 210, RAD 215, RAD 220, and SPCH 101 or SPCH 105.
Corequisite(s): RAD 225, RAD 255, RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 265 - Clinical Fundamentals IV

1 Credit(s)
This course will summarize all previously taught material that is necessary for an entry level technologist. It will promote cooperation between all health care fields for superior patient care in the clinical setting. This course will also discuss pharmacology in the radiographic setting, as well as medical emergencies such as shock, CVA, diabetes, MI, etc. This course offers a general review of clinical skills, critical thinking, terminology, anatomy, and a continuation of venipuncture with additional practice on the "dummy" arm, as well as "live" venous access. This course will also prepare the student for the radiography registry exam and reaffirm all theories relating to clinical fundamentals and clinical practice.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 195, RAD 205, RAD 210, RAD 215, RAD 220.

Corequisite(s): RAD 225, RAD 255, RAD 260, RAD 270.
Pre/Corequisite(s): PSYC 105

RAD 270 - Radiography Procedures IV

3 Credit(s)
This course will introduce more complex radiographic procedures such as the following: interventional studies, arthrography, CNS, as well as a follow-up to the ancillary areas discussed in RAD Procedures III. Completion of any remaining radiographic anatomy will also be studied such as vertebral column and headwork. A comprehensive review of all previously learned material since the initial semester of study will occur in order to prepare them for the registry exam. Advanced image evaluation proficiency will be tested at the conclusion of this course.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 195, RAD 205, RAD 210, RAD 215, RAD 220.
Corequisite(s): RAD 225, RAD 255, RAD 260, RAD 265.
Pre/Corequisite(s): PSYC 105.

Total Credits (61)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

Students wishing to pursue a bachelor's degree should take MATH 108 or MATH 210.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Radiologic Technology, Degree Completion, A.A.S.

Major Code: 254

West Virginia Northern offers an Associate in Applied Science Degree (AAS) for graduates of accredited Radiologic Technology programs. Students must have successfully completed a hospital-based certificate program* such as the OVMC Radiology Program, the former Wheeling Hospital Radiology Program, Washington Hospital Radiology Program, or any other Joint Review Committee on Education in Radiologic Technology (JRCERT) -accredited certificate program to be eligible to earn an AAS Degree by completing designated courses at West Virginia Northern.

The courses at WVNCC must be completed in addition to the certificate program in order to be eligible to sit for the American Registry of Radiologic Technologists (ARRT) primary certification exam in Radiography.

Students with an ARRT Certification are eligible to receive applicable program credits.

The most familiar use of the X-ray is the diagnosis of broken bones. Today's radiation technology includes the use of radiation for diagnostic and therapeutic procedures. Imaging techniques that use ultrasound, computerized tomography, and magnetic resonance imaging (MRI) is growing rapidly.

Hospitals are the principal employers of radiologic technologists, but new opportunities now exist in clinics, physician offices and Diagnostic Imaging Centers.

* Student must contact the hospital-based program to obtain information regarding specific admission requirements for each hospital-based program.

Please note: Eligibility requirements for ARRT certification in Radiography, effective January 1, 2015 require candidates to earn an associate (or more advanced) degree from an accrediting agency recognized by ARRT. ARRT believes that the general education courses required for an academic degree provides a firm foundation to support the evolving role of the technologist and the lifelong learning necessitated by the increasing rate of technological change. Quantitative and communication skills and understanding of human behavior that are acquired through general education classes are believed by ARRT to have value in continuing to shape professionalism and advancement of a Registered Technologist's role in health care.

For more information please contact the ARRT at www.arrt.org for further details.

CIP Code: 510911

Fall Semester (6 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (9 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

- HUM - Humanities Core Requirement **3 Credit(s)**
- MATH - Math Core Requirement **3 Credit(s)** #

Summer Semester (55 Credits)

Radiologic Technology (hospital-based)

Accredited Hospital-based programs begin in the summer.

Total Credits (70)

Choose from: MATH 108, MATH 115 or MATH 210.

Notes: Local hospitals accept applications during the fall and begin class in the summer. Please contact the hospital for specific timelines and admission requirements.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Refrigeration, Air Conditioning and Heating Technology, A.A.S.

Major Code: 228

This is a program designed to provide the technical knowledge and skills required of persons employed in the air conditioning, heating and refrigeration businesses and industries. Students completing the program will be able to find employment in the areas of residential, commercial, and industrial air conditioning, heating and refrigeration installation, maintenance and service. Planned lectures and laboratory experiences parallel those activities performed by service technicians in the field and include installing and checking equipment, servicing and replacing major and minor components and troubleshooting and analysis of individual units and complete systems. Field trips to businesses and industries are an integral part of the program.

This program will give students a thorough and in-depth understanding of the technology as well as prepare them to make rapid transition into gainful employment.

Upon completion of this program, graduates will be able to:

- Test pressures and temperatures in a heating, air conditioning, or refrigeration system to troubleshoot system performance.
- Install heating, air conditioning, and refrigeration equipment pertaining to HVAC codes and regulations.
- Apply advanced principles of heating, air conditioning, ventilation, and refrigeration.

- Prepare students for a wide variety of careers in HVAC and refrigeration.
- Prepare students to interact effectively with customers.

Students will be prepared for current national and state certifications in the industry. WVNCC serves as a testing center for many of these certifications.

Job Opportunities: Graduates from this program can expect to obtain entry level employment in positions such as refrigeration and air conditioner installers and service technicians. Future career paths include dispatchers, service and installation managers, parts and equipment sales, building control technicians, facilities technicians and managers, and small business owners. Graduates are employed by refrigeration, air conditioning and heating service and installation contractors, facilities such as hospitals, colleges, and school districts, industrial plants, data centers, supermarkets, convenience stores, and restaurant chains, and trade unions.

Wage and Employment Trends:

- The employment outlook is excellent for this field of study with opportunities locally, regionally, and nationally.

CIP Code: 470201

First Year

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101

Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat. Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

RAH 110 - HVACR Piping Skills

3 Credit(s)
This course is an introduction course to HVAC/R field. The beginning of the course will introduce the career pathways. The student will be required to do a resume and start their path in this field. The students will cover the safety aspects of this field with a focus on basic safety. The students will also focus on the customer relations in this career pathway. The next portions of this class will focus on the multitude of tools that we use in this career field. The last portion of the class will focus on the physical cutting, fitting and joining of various types of copper, steel, and plastic pipe and tubing.

Spring Semester (15 Credits)

- MATH - Mathematics Core Requirements **3 Credit(s)##**

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

RAH 102 - Refrigeration Controls

3 Credit(s)
This course is an introduction to controls of refrigeration, heating and cooling systems. Students will become familiar with the mechanical and electrical components used in air conditioning and refrigeration systems to create the desired operation of these systems. The students will be introduced to basic electrical materials and components. They will learn schematic reading, and component identification of basic electrical items. The students will also become familiar with basic electronics and simple microproccesors. This course also introduces basic motors and some controls of those motors pertaining to Refrigeration and Air Conditioning systems. The final parts of the class will give an overview of mechanical and electrical control and protection devices as well as refrigerant flow components including valves and regulating devices. This course is meant to be an introduction and will be assessed at the introductory level.

RAH 209 - Forced Air Systems/Duct Layout

3 Credit(s)
This is a course in both design and fabrication of forced air systems. Students will calculate heating and cooling loads and use that information to design properly sized duct systems. Students will fabricate and install sheet metal duct systems and learn to use sheet metal tools to create duct and fittings.

Prerequisite(s): RAH 100

RAH 235 - Comfort Cooling

3 Credit(s)
The course introduces and reinforces topics in residential and commercial air conditioning. Topics to be covered will include types of air conditioners, split system air conditioners, commercial system overview, humidity control, thermostats, basics of energy management and conservation, as well as cooling loads for a structure. This course has many chapters and is full of a lot of new concepts for the student.

Prerequisite(s): RAH 100
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

RAH 206 - Heating Systems I

3 Credit(s)
This course will introduce students to gas and oil-fired furnaces. Students will identify furnace configurations such as upflow, downflow, and horizontal, and identify various components of gas and oil furnaces. Students will learn proper installation techniques, and how to perform adjustments and check for proper combustion on gas and oil equipment.

RAH 207 - Heating Systems II

3 Credit(s)
This course is a continuation of RAH 206. Topics to be covered include advanced high efficiency heating equipment, dual fuel systems, zoning strategies, VRF heat pumps.

Prerequisite(s): RAH 100, RAH 206, and RAH 209.
Corequisite(s): RAH 235.

RAH 220 - Hydronics

3 Credit(s)
This is a course in the utilization of water as a heat transportation medium. Students will become familiar with the operation and components of boilers, and chillers, and the operation, theory, and components of chilled water, hot water and steam systems.

Prerequisite(s): RAH 100, RAH 206, MEC 120.

Spring Semester (15 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will

learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

RAH 260 - Certification Preparation

3 Credit(s)
This course will prepare students to take and pass various industry certification exams. Students will prepare for the current EPA certification exams, the current West Virginia Technician certification exams, and various national certification exams such at NATE, ICE, and HVAC Excellence.

Prerequisite(s): RAH 100 , RAH 209 , RAH 220 and RAH 235 or Program Director permission.
Corequisite(s): None
Pre/Corequisite(s): RAH 100 , RAH 209 , RAH 220 and RAH 235 or Program Director permission.

RAH 265 - Commercial Refrigeration

3 Credit(s)
This is a course in commercial and industrial refrigeration. Topics to be covered include reach in and walk in coolers and freezers, ice machines, compressed air dryers, industrial process cooling, and an introduction to supermarket systems.

Prerequisite(s): RAH 100 and RAH 102

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Applied Science General Education Core Requirements

Respiratory Therapy, A.A.S.

Financial Aid Eligibility Pending

Major Code: 248

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The Respiratory Therapy program CoARC #200704, AAS degree program at WVNCC on the Wheeling Campus, holds provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com)

Respiratory therapists are employed in hospitals, skilled patient-care facilities, physician offices, home health agencies, free standing emergency departments, academic institutions and industry. The US department of Labor Bureau of Statistics indicates that employment for Respiratory therapist is expected to grow 13.2% faster than average through the year 2032 due to the substantial growth in the middle-aged and elderly population, which heightens the incidence of cardiopulmonary disease and the projected number of 90,000 practicing therapist expected to leave /retire from the profession by 2030.

The laboratory portions of the program, which reinforce concepts learned in lecture are held in our on-campus lab. Students have clinical experiences ranging from small community hospitals to large University hospitals, specialty rotations in the operating room, pulmonary function and sleep labs, pulmonary rehab, and home health agencies provide students with the knowledge and technical skills required of the Registered Respiratory therapist.

In addition to the General Education Outcomes, upon completion of this program, graduates will be able to:

Program Goal 1

To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills) and the affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapist (RRTs).

Program Goal 2

To prepare graduates to develop patient therapeutic goals of respiratory therapy basic care across the life span.

Program Goal 3

To provide graduates to fulfill the employment needs of Respiratory Care Professionals within the local and regional service area.

IMPORTANT INFORMATION: Additional costs are associated with this program such as physicals, vaccinations, titers, drug screening and background checks. If you have ever been convicted of a felony or misdemeanor for any reason, you may be denied employment, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code 51.0908

First Year

Fall Semester (16/17 Credits)

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

RETH 101 - Introduction to Respiratory Therapy

4 Credit(s)
This is an introduction to respiratory therapy as a profession and to basic clinical assessment and care of patients. Professional aspects relating to the duties, responsibilities, professional ethics and liabilities of respiratory therapy personnel will be discussed. Principles and skills of basic patient care including patient assessment, record keeping, airway management and patient monitoring will be included.

Prerequisite(s): None
Corequisite(s): RETH 103
Pre/Corequisite(s): BIO 220, ENG 101, MATH 115

RETH 103 - Cardiopulmonary Pharmacology

2 Credit(s)
The general principles of Pharmacology including drug types; dispensing; dosage effects, including contraindications; and regulations are presented in this course. Drug groups relating to respiratory therapy will be emphasized including bronchodilators, wetting agents, mucolytics, proteolytics, antibiotics and antiasthmatic drugs.

Prerequisite(s): None
Corequisite(s): RETH 101
Pre/Corequisite(s): BIO 220, ENG 101, MATH 115

Spring Semester (15 Credits)

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

RETH 104 - Clinical Practicum I

2 Credit(s)
An introduction to the clinical setting is provided with an opportunity to begin initial care for the patient. Each student will begin through observation and Practice performing skills related to Basic Oxygen therapy, aerosol drug therapy, general airway clearance and maintenance therapy, 12 Lead ECG and Arterial blood gases may be performed while in the clinical setting.

Prerequisite(s): BIO 220, RETH 101, RETH 103
Corequisite(s): RETH 105, RETH 107
Pre/Corequisite(s): BIO 225

RETH 105 - Basic Respiratory Therapeutics

4 Credit(s)
Lecture and laboratory sessions are offered related to the administration of other medical gases; devices used for the delivery of gases; general respiratory therapy procedures, including principles of positive pressure use, Incentive spirometry,hyperinflation techniques, bronchopulmonary drainage, and drug aerosol therapy. Indications, hazards and contraindications will be included. The course also contains topics such as equipment processing, quality assurance, infection control and bronchoscopy. as well as assessing social determinates of health care will be discussed.

Prerequisite(s): RETH 101 , RETH 103

Corequisite(s): RETH 104 RETH 107
Pre/Corequisite(s): BIO 225

RETH 107 - Cardiopulmonary & Renal Anatomy & Physiology

5 Credit(s)
This course contains discussion of the anatomy & physiology of the pulmonary, cardiac and renal systems. Physiologic topics include mechanics of breathing, pulmonary defense mechanisms, gas diffusion, gas transport, cardiac anatomy, the cardiac electro-conductive system, circulatory system, fluid and electrolyte balance, aid-base regulation, and interaction of the pulmonary, cardiac and renal systems. This course is designed for respiratory therapy major as these sciences apply to the practice of Respiratory Care

Prerequisite(s): BIO 220 RETH 104 RETH 105
Corequisite(s): RETH 104 RETH 105
Pre/Corequisite(s): BIO 225 MATH 115

Summer Term (6 Credits)

RETH 106 - Clinical Practicum II

2 Credit(s)
In this clinical course students will become proficient in general care therapeutics modalities using various techniques and equipment. An introduction to pulmonary function testing and pulmonary rehab is included while further enhancement of patient managed care and an introduction to adult critical care in the acute care setting is made available to students.

Prerequisite(s): RETH 101, RETH 103, RETH 104, RETH 105, RETH 107
Corequisite(s): RETH 109

RETH 109 - Cardiopulmonary Diag, Rehab, & Home Care

4 Credit(s)
This course studies the methods available for determining lung function and capacity, sleep and the stages of sleep. The topics include indications for testing in pulmonary and sleep labs, equipment standards for testing, interpretation and methods for obtaining accurate results within a pulmonary functions and sleep diagnostics lab setting. Students will study rehabilitative techniques & procedures for those patients who were found to have pulmonary disease with testing. These methods will be presented as components of a pulmonary rehab program. Patient education and therapies employed within a patients' home is also covered within this course.

Prerequisite(s): RETH 104 , RETH 105 , RETH 107
Corequisite(s): RETH 106

Second Year

Fall Semester (13 Credits)

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality

development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

RETH 201 - Critical Care I

4 Credit(s)
This course covers the function and principles of operation of adult volume and pressure ventilators; Noninvasive Positive pressure ventilators, high frequency ventilators; and continuous positive airway pressure devices will be reviewed. Concentration will be on specific controls, internal and external circuitry, monitoring systems, alarms and proper patient/ventilator interaction.

Prerequisite(s): RETH 106 , RETH 109
Corequisite(s): RETH 203 RETH 204

RETH 203 - Cardiopulmonary Pathology

3 Credit(s)
This course will discuss the etiology, diagnosis, and treatment of common pathologic processes which require respiratory therapeutics. Topics will include pulmonary diseases, cardiac diseases, neurologic diseases, and traumatic injuries which require pulmonary intervention and treatment.

Prerequisite(s): RETH 106 , RETH 109
Corequisite(s): RETH 201 RETH 204

RETH 204 - Cinical Practicum III

3 Credit(s)
For this clinical course students will rotate in areas of the hospital to emphasize the establishment and maintenance of an artificial airway. Pulmonary Function Testing lab and Rehabilitation rotations will occur. An introduction to ventilator initiation and management in the critical care settings is also included. Patient cases and procedure reviews will occur weekly for an hour during clinical lecture hour.

Prerequisite(s): RETH 104 , RETH 106
Corequisite(s): RETH 201 , RETH 203

Spring Semester (12 Credits)

AHS 125 - ACLS/PALS/NRP

3 Credit(s)
The course of Advanced cardiac life support and Pediatric life support is designed for the students in a healthcare profession who either directs or participates in the management of cardiopulmonary arrest or other cardiovascular emergencies. The Neonatal Resuscitation Program® (NRP®) course is designed to convey an evidence-based approach to care of the newborn at birth and facilitates effective team-based care for healthcare professionals who care for newborns at the time of delivery. Upon successful completion of the course, students receive a course completion card, valid for two years.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204

RETH 205 - Critical Care II

4 Credit(s)
The theory and application of mechanical ventilation techniques with emphasis on physiologic effects for neonatal, pediatric and adult patients will be discussed. Patient initiation, evaluation, maintenance and weaning techniques will be incorporated. Special emphasis is placed on cardiac testing, hemodynamic monitoring and respiratory calculations will be practiced.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): AHS 125 , RETH 206 , RETH 207

RETH 206 - Clinical Practicum IV

3 Credit(s)
The final clinical component provides the opportunity to perform all procedures practiced throughout the clinical courses in the various areas of a hospital. Students rotate in areas of the hospital to emphasize establishment and maintenance of artificial airways, ICU ventilator care, sleep diagnostic lab. An introduction to ventilator initiation and management in the neonatal setting is included. Required case and procedure review will occur during clinical lecture hour.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): AHS 125 , RETH 205 , RETH 207

RETH 207 - Respiratory Therapy Seminar

2 Credit(s)
This course reinforces the clinical education components of information gathering and decision-making related to assessment and treatment of cardiopulmonary impairment. Entry-level and advanced -level respiratory therapy comprehensive self -assessment testing will be administered. An emphasis on the professional tools and skills necessary for interviewing, testing and obtaining a position as a credentialed, licensed respiratory therapy practitioner is covered as well.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): RETH 205 , RETH 206

Total Credits (62/63)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Skilled Trades, A.A.S.

Northern recognizes training from approved apprenticeship programs registered with the U.S. Department of Labor Office of Apprenticeship as applicable toward an Associate of Applied Science in Skilled Trades. This program allows

individuals who are currently enrolled in or have completed a registered apprenticeship to combine their apprenticeship training with college-level coursework to earn an associate degree.

Program requirements are established through agreements between the College and participating apprenticeship programs. Students complete general education coursework through the College while receive academic credit for the technical instruction and on-the-job training complete throught their apprenticeship program. Eligible students may utilize funding available through the Skilled Trades Apprenticeship Nontradtiional Degree (STAND) initiative to support completion of required general education coursework.

There are three components to the program:

1. General education courses are offered by the College.
2. Technical specialty courses, including classroom instruction required by the specific apprenticeship program, which may be supplemented by college courses in some cases.
3. On-the-job training is part of the apprenticeship program and is awarded credit under agreements negotiated by the partners.

Upon completion, graduates will be able to:

1. Use written and verbal communication skills in the workplace.
2. Apply interpersonal skills in the workplace.
3. Apply principles of mathematics and science to contemporary issues in society and in the workplace.
4. Complete an approved apprenticeship training program using the technical skills required in the specific occupational area.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP 46.0000

General Education Core Requirements

Associate in Applied Science General Education Requirements

Small Business Management, Business Career Studies, C.A.S.

Major Code: 158

This program is designed to prepare students to make sound management decisions concerning the operation of a small business. A basic background is provided in the following areas: accounting, computers and information technology, business law, marketing, business communications, and management.

This certificate program may be transferred to a two year program leading to an Associate in Applied Science degree.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Market and promote products
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

Graduates can expect to be employed in retail establishments, sole proprietorships, and food and hospitality industries.

Statistically, individuals with entrepreneurial skills constitute one of the fastest growing fields of employment.

Job Titles: Entrepreneurs, Assistant Managers, Front line shift supervisors, Store managers.

Wage and Employment Trends:

- According to the American Community Survey by the US Census Bureau, the median income for individuals who were self-employed at their own incorporated business in WV was $42,450 in 2014; for those self-employed at their own unincorporated firms, it was $18,785.

CIP Code: 520701

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MKT 230 - Principles of Marketing

3 Credit(s)
This course emphasizes the operational and strategic planning aspects of marketing. Customer-driven, value-added strategies, product life cycles, product positioning, logistics, personal selling, and the Marketing Mix (product, price, place, and promotional) are examined. Concepts are applied in a required project.

Prerequisite(s): Satisfactory reading and writing placement of ENG 097.
Pre/Corequisite(s): ENG 101.

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work 2+2 to FUS, A.A.

Transfer to Franciscan University of Steubenville

Major Code: 392

Note: This is a transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. It does not imply a guarantee that a student will be able to complete all requirements in four years.

Students completing this option will receive an Associate of Arts degree from West Virginia Northern. Upon being accepted to, and successfully completing the additonal required credit hours at Franciscan University of Steubenville, they will receive a Bachelor Degree in Social Work (B.S.W.). Some of the 60 credit hours from WVNCC will transfer as equivalent courses, with the rest transferring as general electives.

In addition to the WVNCC courses, applicants for admission to FUS need to have an overall grade point average of 2.0 and meet other program admissions requirements of Franciscan University to be eligible under this program. Students must also make separate application to the Department of Social Work and fulfill other program admissions requirements.*

In addition to General Education Outcomes, students successfully completing and receiving and A.A. degree under the articulation agreement with Franciscan University's School of Social Work should be able to:

- Demonstrate knowledge of the history of the social work profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the social work profession.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of social services.

- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate attendance, initiative, organization, and interest in the profession.

To be considered for acceptance into the Social Work program at FUS, the student must, at the end of their sophomore year, apply for formal admission into the Social Work program in addition to applying for general admission to FUS. The prospective student must:

- Complete the application for admission to the Social Work program at FUS.
- Submit a resume.
- Submit two letters of reference.
- Complete a personal interview with a program faculty member.
- Fulfill any additional admissions requirements of FUS.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students, may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair at WVNCC or FUS.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST requirement **3 Credit(s)+**

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Spring Semester (15 Credits)

- ENG literature requirement **3 Credit(s) ***

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- PSYC/HS elective **3 Credit(s) #**

Total Credits (62)

*Choose from ENG 200, ENG 201, ENG 210, or ENG 211

+Choost from HIST 100 or HIST 101

#Choose from HS 101, PSYC 200, PSYC 210, or PSYC 218

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work 2+2 to Ohio University, A.A. (Financial Aid Eligibility Pending)

Transfer to Ohio University Eastern

Major Code: 399

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at one institution and finishes a Bachelor degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in 2 (Associate) or 4 (Bachelor) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in 4 years.

Further, 2+2 articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under a 2+2 program.

Students successfully completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon acceptance and successfully completing the remaining specified credit hours at Ohio University Eastern, they will receive a Bachelor in Social Work (B.S.W.) Degree, which produces graduates who are well prepared to enter the work force as generalist social work practitioners. Applicants for admission to Ohio University Eastern's social work program must meet the following criteria:

- Student has completed the Associate degree at WVNCC
- Submit a transcript to OUE verifying an overall grade point average with a minimum of 2.0. The Social Work Department requires a 2.5 in the major*Contact OUE's Social Work Program director and obtain additional forms and instruction for admission to the Social Work program early in their program at WVNCC
- Submit at least one or two recommendation forms by a current or past faculty member or employer
- Have completed a minimum of 20 hours of volunteer or paid work experience in the area of social work
- Complete and submit a written personal essay
- Complete and submit an application to the Social Work Program at OUE
- Schedule and complete an interview with the Social Work Program Director at OUE

Students successfully completing and receiving and A.A. degree under the articulation agreement with Ohio University Eastern's School of Social Work should be able to:

• Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems;

• Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/ human services and apply basic skills related to general education curriculum requirements for the Social Work A.A. degree;

• Utilize critical thinking skills;

• Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
+++

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
+++

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
+++

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.
+++

Second Year

Fall Semester (15 Credits)

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
+++

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
+++

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (14 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry,

geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115
+++

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
+++

Total Credits (60)

+++Ohio University - Eastern requires a "C" or better in these courses and reserves the right to evaluate whetehr these WVNCC courses meet all outcomes for equivalent courses in a major.

Social Work 2+2 to WVU, A.A.

Transfer to West Virginia University

Major Code: 393

Note: This is a 2+2 transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for supplemental coursework, scheduling and availability of courses, or other factors, this agreement does not imply a guarantee that a student will be able to complete all requirements in four years.

Students completing this option will receive an Associate of Arts degree from West Virginia Northern. Upon being accepted and successfully completing the specified number of credit hours at West Virginia University, they will receive a Bachelor Degree in Social Work (B.S.W.). The majority of credit hours will transfer as equivalent courses, with the rest transferring as general electives.

In addition to the WVNCC courses, applicants for admission to WVU need to have an overall grade point average of 2.5*, 100 hours of documented relevant volunteer or work experience, submit a written personal statement and at least one letter of reference. Qualifying students will compete with other WVU students and transfers, and students must make application to WVU's office of admissions and the B.S.W. Program Coordinator no later than January 31 of the year they plan to matriculate to WVU.

Students successfully completing and receiving an A.A. degree under this 2+2 transfer agreement with West Virginia University's School of Social Work should be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/human services.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the social work/human services professions.
- Demonstrate knowledge of the issues related to the needs and problems of different client populations.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of social work/human services.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Social Work A.A. transfer degree.
- Apply knowledge and basic skills related to therapeutic communication and relationships in social work.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- HUM - Humanities requirement **3 Credit(s)** ***

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- SCI - Science Core Requirement **4 Credit(s)** **

Second Year

Fall Semester (16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- SCI - Science Core Requirement **4 Credit(s)** **
- Restricted Elective **3 Credit(s) #**

Spring Semester (13 Credits)

- HIST - History Requirement **3 Credit(s)+**

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s) #**
- Elective **1 Credit(s) ##**

Total Credits (60-61)

** Choose from: BIO 110, CHEM 108, CHEM 109, PHYS 104 or PHYS 105.

*** Choose from: ART 150 or MUS 105

+ Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

Restricted electives: choose from HS 101, HS 150, HS 200, or SS 207 (SS 207 fulfills a minority studies requirement at WVU.)

Elective can be chosen from any college-level course (100 level and above)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work, A.A. (Transfer to West Liberty University)

Major Code: 346

Note: This program is through a transfer agreement in which a student completes an Associate's degree at one institution and finishes a Bachelor's degree at another institution. Due to individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon successfully completing the additional credit hours required at WLU, they will receive a Bachelor of Social Work (BSW) degree, and may be eligible to sit for the Social Work licensure exam.

Students successfully completing and receiving an A.A. degree under the transfer agreement with West Liberty University's School of Social Work will be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of it's various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/human services.

- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize access and literacy skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.
    - Utilize critical thinking skills.

In addition to the WVNCC courses, applicants for admission to WLU need to have an overall grade point average of 2.5 and meet other program admissions requirements of WLU to be eligible for admission under the transfer program. Students must also complete a separate application for the Department of Social Work and fulfill other program admission requirements (below). Students are encourage to meet with a member of the Social Work faculty at WLU early in their program of study at WVNCC to obtain information and counseling concerning transferring to the BSW program.*

Applicants for admission to West Liberty University's school work program must also meet the following criteria:

- Submit a transcript to WLU verifying an overall grade point average with a minimum of 2.0. The Social Work Department requires a 2.5 in the major.
- Contact WLU's Social Work Program and obtain WLU's Social Work Student Program Manual, which will provide additional forms and instruction for admission to the Social Work program.
- Submit at least one recommendation form by a current or past faculty member or employer.
- Complete and submit a written personal statement entitles "Why I Want to be a Social Worker", as outlined in WLU's Social Work Program Manual.
- Complete and submit an application to the Social Work Program at WLU.
- Schedule and complete an interview with the Social Work Program Director at WLU.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

CIP Code: 440701

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

- HUM - Humanities Core Requirement (Fine Arts) **3 Credit(s)***

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)****

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Total Credits (61)

*Choose from ART 150 or MUS 105

** Choose from HIST 100, HIST 101, HIST 110, or HIST 111

West Liberty University requires a "C" or better in all transfer courses and reserves the right to evaluate whether WVNCC courses meet all outcomes for equivalent courses in a major.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See with your advisor to determine if you have met this requirement.

Social Work/Pre-Social Work Transfer to BC, A.A.

Transfer to Bethany College

Major Code: 167

Note: This articulation transfer agreement allows a student to complete an associate degree at WVNCC and finish their Bachelor's degree at Bethany College. Individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors may affect the time it will take a particular student to complete all requirements.

The articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under an articulation agreement program.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the remaining specified credit hours at Bethany College, they will receive a Bachelor in Social Work (B.S.W.) Degree. In addition to the WVNCC courses, applicants for admission to Bethany's social work program must meet the following criteria:

1. Submit a transcript to Bethany College verifying an overall grade point average of 2.0.*
2. Obtain Bethany College's Social Work Student Handbook
3. Submit an application and all related documents to the Social Work Program Director by May 1
4. Submit at least one recommendation form by a current or past faculty member or employer
5. Complete and submit a criminal background check
6. Complete and submit a written personal statement entitled, "Why I Want to be a Social Worker"
7. Provide proof of completion of a 50-hour service learning experience (the WVNCC Human Services internship will fulfill this requirement)
8. Schedule and complete an interview with the Social Work Program Director at Bethany College

In addition to General Education Outcomes, students successfully completing and receiving and A.A. degree under the articulation agreement with Bethany College's School of Social Work should be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/ human services and apply basic skills related to general education curriculum requirements for the Social Work A.A. degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If a prospective student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. If a student has ever been convicted of a felony or misdemeanor, he/she should contact the appropriate Program Director or Division Chair.

CIP Code: 240199

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HPE 105 - Personal Fitness

1 Credit(s)
This course instructs students in the concepts, techniques and methods of personal fitness, stressing the effects of nutrition, weight control and exercise. Demonstration and practice in exercise appropriate for a variety of health conditions are included. Course is graded on a credit/no credit basis.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- HIST Core Requirement **3 Credit(s)** **
- Elective **3 Credit(s)**

Second Year

Fall Semester (15/16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture.

The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

- MATH - Mathematics Core Requirement **3(4) Credit(s)** *

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (14 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HPE 100 - General Program in Physical Education

1 Credit(s)
This course provides instruction and practice in the skills needed for participation in selected lifetime sports or for maintaining physical fitness. Class schedules will indicate class activities. Course is graded on a credit/no credit basis.

or

HPE 101 - General Program in Physical Education

1 Credit(s)
This course provides instruction and practice in the skills needed for participation in selected lifetime sports or for maintaining physical fitness. Class schedules will indicate class activities. Course is graded on a credit/no credit basis.

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 208 - HS Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar that requires a total of 200 contact hours at an appropriate social services agency. It is considered the "capstone" course or experience for human services students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 205, HS 210, with a "C" or better, AND permission of a program instructor. Students may also be required to meet other criteria for entry into the field experience thay may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.

- HUM - Humanities Core Requirement **3 Credit(s)** ***

Total Credits (61-62)

* Choose from: MATH 108 or MATH 210.

** Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

*** Choose from: ENG 200, ENG 201, ENG 210, ENG 211, ENG 225, or ENG 226

NOTEL Bethany College requires a "C" or better in all courses and reserves the right to evaluate whether these WVNCC courses meet all outcomes for equivalent courses in a major. Recommended courses for additional transfer credits include, but are not limited to: CRJ 104, CRJ 110, CRJ 201, CRJ 220, CRJ 225, CRJ 245, HS 150, PHIL 200, PSYC 200, PSYC 218.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Substance Abuse Intervention Specialist, A.A.S.

Major Code: 396

The Substance Abuse Intervention Specialist AAS prepares students to work with people and families experiencing or affected by substance abuse problems and other co-occurring behavioral or mental health issues. Students will learn about working with clients, and acquire skills needed to apply the theories used in psychology, social work, and substance use disorders to help individuals and families recover from substance abuse & addiction and prevent relapse. A 2.0 GPA is required for acceptance into this program.

This degree allows students to complete a degree quickly to prepare to work in the field of substance abuse, social work, or mental health as soon as possible.

In addition to General Education Outcomes, students successfully completing and receiving an AAS degree in Substance Abuse Intervention Specialist should be able to:

- Apply the philosophies of Alcoholic's Anonymous and Narcotics Anonymous
- Explain history, concepts, theories and strategies used in psychology & human services delivery systems.
- Explain similarities and differences among psychoactive substances and their effects on the user
- Explain issues related to the needs of different types of clients with substance use disorders, including their impact on families and communities
- Demonstrate professionalism and apply medical, legal, and discipline-based ethics in clinical settings by successfully completing an internship.
- Apply the skills, techniques, strategies, and abilities needed for assessing, treatment planning, and therapeutic communication with clients in individual or group settings
- Apply the skills and abilities needed to be objective, understanding, and empathetic toward individuals from diverse backgrounds and ability levels.

Returning students who completed certain courses (HS 100, HS 101, HS 147, HS 150, HS 200, HS 210, BIO 114, AHS 103, AHS 110, HPE 110) more than 5 years prior to entering this program will be asked to repeat the course(s) to ensure that their knowledge & skills are current in the field.

Graduates of this program can expect to be employed in substance abuse treatment facilities or other human services agencies in positions which do not require bachelor's degrees as intervention specialists, prevention specialists, peer recovery support specialists, behavior specialists, case aides or caseworkers, or as mental health or crisis intervention technicians. To become a certified addictions counselor, social worker, or similar professional, students with the associate degree will need to continue their education by earning more advanced degrees at other colleges or universities.

This project is supported by a grant from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant # T26HP394640100, "Opioid Impacted Family Support Program". This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government."

The employment outlook for these jobs currently is above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following university to complete a four-year degree:
    - West Liberty University, BS, Social Work
    - West Virginia University - BS, Social Work
    - West Virginia University - BA, Mental Health & Addiction Studies

Job Titles: Prevention Specialist, Peer Support Specialist, Family Service Worker, Direct Services Worker, Mental Health Technician

Wage and Employment Trends:

- $19,000 to $28,000 (Ziprecruiter, 2020)
- 22% growth in the next four years (SAMHSA, 2019)

CIP Code: 51.1501

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and

the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (12-13 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Math Core Requrement* 3-4 Credit(s)

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

SA 100 - Peer Recovery Support Specialist (PRSS) Ethics

1 Credit(s)
This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.

Prerequisite(s):

HS 100 , HS 210 with a grade "C" or better
Corequisite(s): None
Pre/Corequisite(s): HS 150 , SA 200

SA 200 - Substance Abuse Practicum/Clinical Experience I

1 Credit(s)
This course is both a clinical practicum experience and a seminar which requires a total of 162 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 1 hour (8 contact hours) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. Before beginning the clinical experience, students must apply to and be accepted by the agency in which the work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, and HS 210, PSYC 105 and HS 205 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include: a criminal background check and/or drug screening.
Pre/Corequisite(s): AHS 110, HPE 110, HS 150, HS 200, and PSYC 200

Summer Semester (2 Credits)

SA 201 - Substance Abuse Practicum/Clinical Experience II

2 Credit(s)
This course is the second practicum/clinical experience and seminar which requires a total of 332 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 2 hours (8 hours total) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. They are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical courses.

Prerequisite(s): AHS 110, HPE 110, HS 150, HS 200, PSYC 200 and SA 200 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include but are not limited to: a criminal background check and/or drug screening, recommendations from faculty and agency representatives.

Second Year

Fall Semester (15-16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 155 - Substance Abuse Treatment & Recovery

2 Credit(s)
This course covers different methods for assessing & treating clients with substance use & addictive disorders, including addiction-focused & family counseling, motivational interviewing, medication assisted treatment, residential & correctional facilities treatment programs, recovery homes, and self-help groups. It will also introduce students to certification, licensure and continuing education requirements for substance abuse professionals. This course alone does not qualify individuals to diagnose or treat substance use disorders.

Prerequisite(s): PSYC 105 and HS 150 .
Corequisite(s): None
Pre/Corequisite(s): None

- Science Core Requirement 3-4 Credit(s)

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

- CRJ Restricted Elective **3 Credit(s)#**

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SA 204 - SA Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar which requires a total of 200 contact hours at an appropriate social services agency working with individuals and families impacted by substance abuse. The corresponding in class meetings occur every other week for 2 hours to provide students with an opportunity to discuss the field experience with other students, and to monitor and evaluate the student's progress It is considered the "capstone" course or experience for students pursuing the AAS degree for Substance Abuse Intervention Specialists, in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 150 , HS 210, PSYC 200 and SA 201 with a "C" or better,
AND permission of the program director. Students may also be required to meet other criteria for entry into the field experience that may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.
Pre/Corequisite(s): AHS 103 and ECCE 212
**

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Total Credits (61-63)

*Students who eventually plan to tranfer should take MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

#CRJ elective should be chosen from: CRJ 245 or CRJ 246

**Before registering for the Internship/Clinical Experience III, students must apply to and be accepted by an approved social services agency. There is also a class requirement of two hours every other week.

IMPORTANT GRADUATION INFORMATION:ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education (Math/Science) Requirements

Associate in Applied Science General Education (Math/Science) Core Requirements

Substance Abuse Intervention Technician, C.A.S

Major Code: 398

The Substance Abuse Intervention Technician CAS prepares students to work with individuals and families experiencing or affected by substance abuse problems and other co-occurring behavioral or mental health issues. Students will learn about working with clients, and acquire skills needed to apply theories used in psychology, social work, and substance use disorders to help individuals and families recover from substance abuse & addiction and prevent relapse. A 2.0 GPA is required for acceptance into this program.

This program allows students to complete a certificate quickly to prepare to work in the fields of substance abuse, social work, or mental health in a treatment facility. Students who complete this certificate under the federal grant referenced below, who have worked or currently work in the field of Substance Abuse Intervention and have completed a certain number of clinical, internship, or on the job hours in assessment, diagnosis, treatment, recovery, & education under the direct supervision of a licensed or certified Substance Use Disorder treatment professional may be eligible for an Apprenticeship Certificate through the Department of Labor or through state certification boards.

For students who have also had a successful personal recovery experience, it will fulfill the eligibility requirements of the WV Certification Board for Addiction & Prevention Professionals (WVCBAPP) to sit for the exam to become credentialed as peer recovery support specialists (PRSS) in West Virginia.

It also fulfills some of the requirements for students who wish to pursue the Associate in Applied Science Degree (AAS) for Substance Abuse Intervention Specialists, or can serve as a foundation for students who eventually may wish to pursue a Bachelor's or Master's degree in Social Work, Psychology, Counseling, Mental Health/Addiction studies, or related fields.

This project is supported by a grant from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant # T26HP394640100, "Opioid Impacted Family Support Program". This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government."

Students successfully completing and receiving a Certificate in Substance Abuse Intervention Technician should be able to:

- Explain the philosophies of Alcoholic's Anonymous and Narcotics Anonymous*
- Describe history, concepts, theories and strategies used in psychology & human services delivery systems.*
- Identify psychoactive substances and their effects on the user*
- Explain issues related to the needs of different types of clients with substance use disorders*
- Demonstrate professionalism and apply medical, legal, and discipline-based ethics in clinical settings by successfully completing practicums.*
- Describe the skills, techniques, strategies, and abilities used for assessing, treatment planning, and therapeutic communication with clients in individual or group settings*
- Describe concepts related to equity and inclusion for individuals from diverse backgrounds and ability levels*

*Returning students who completed certain courses (HS 100, HS 101, HS 147, HS 150, HS 200, HS 210, BIO 114, AHS 103, AHS 110, HPE 110) more than 5 years prior to entering this program will be asked to repeat those course(s) to ensure that their knowledge & skills are current in the field.

Graduates of this program can expect to be employed in substance abuse treatment facilities or other human services agencies in positions which do not require Associate or Bachelor's degrees as peer recovery support specialists, behavior specialists, case aides or caseworkers, or as mental health or crisis intervention technicians. To become a prevention specialist or certified addictions counselor, social worker, or similar professional, students with this certificate will need to continue their education by earning an Associate or Bachelor's degree.

The employment outlook for these jobs currently is above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

Job Titles: Peer Support Specialist, Family Service Worker, Direct Services Worker, Mental Health Technician

Wage and Employment Trends:

- $13 to $15 an hour (Payscale.com, 2020)
- 22% growth in the next four years; faster than average (SAMHSA, 2019)

CIP Code: 51.1501

First Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality

development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Second Semester (12-13 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Math Core Requirement* 3-4 Credit(s)

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

SA 100 - Peer Recovery Support Specialist (PRSS) Ethics

1 Credit(s)
This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.

Prerequisite(s):

HS 100 , HS 210 with a grade "C" or better
Corequisite(s): None
Pre/Corequisite(s): HS 150 , SA 200

SA 200 - Substance Abuse Practicum/Clinical Experience I

1 Credit(s)
This course is both a clinical practicum experience and a seminar which requires a total of 162 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 1 hour (8 contact hours) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. Before beginning the clinical experience, students must apply to and be accepted by the agency in which the work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, and HS 210, PSYC 105 and HS 205 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include: a criminal background check and/or drug screening.
Pre/Corequisite(s): AHS 110, HPE 110, HS 150, HS 200, and PSYC 200

Third Semester (2 Credits)

SA 201 - Substance Abuse Practicum/Clinical Experience II

2 Credit(s)
This course is the second practicum/clinical experience and seminar which requires a total of 332 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 2 hours (8 hours total) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. They are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical courses.

Prerequisite(s): AHS 110, HPE 110, HS 150, HS 200, PSYC 200 and SA 200 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include but are not limited to: a criminal background check and/or drug screening, recommendations from faculty and agency representatives.

Total Credits 30-31

*Students who eventually plan to tranfer should take MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education (Math) Requirement

Associate in Applied Science General Education Math Core Requirement

Surgical Technology, A.A.S.

Major Code: 257

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Surgical Technologists are experts in the theory and application of sterile and aseptic techniques. That, combined with knowledge of human anatomy, surgical procedures, and implementation tools and technologies, helps physicians perform invasive procedures. They provide surgical care under medical supervision, ensure operating rooms are safe, that equipment functions properly and that the operative procedure is conducted under conditions that maximize patient safety.

The laboratory portions of the program, which reinforce concepts learned in class, are held in our on-campus lab and in operating suites at area hospitals. Students have clinical experiences in hospitals and actively participate on operating room teams during surgery while clinical preceptors oversee their work.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Apply principles of asepsis and sterile technique.
- Demonstrate professionalism while providing care to diverse populations within the healthcare setting.
- Apply principles of perioperative case management to ensure safe and efficient surgical procedures.
- Demonstrate problem solving and critical thinking skills during surgical procedures.
- Successful completion of the National Certification for the Surgical Technologist.

Important information: Additional costs are associated with this program such as physicals, vaccinations, titers, drug screening and background checks. If you have ever been convicted of a felony or misdemeanor for any reason, you may be denied employment in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

Wage and Employment Trends:

- According to the Bureau of Labor Statistics, surgical technologists in West Virginia earn on an average $49,710 per year.
- West Virginia has one of the highest concentrations of surgical technologists in the country.

CIP Code: 51.0909

First Year

Fall Semester (14/15 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human

body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115
Or

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

ST 105 - Surgical Technology I

4 Credit(s)
This course delves into the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The importance of professionalism as it relates in the surgical setting is emphasized. Students gain the fundamentals of healthcare facility information for best practices. An in-depth exploration will be provided on the biological aspects of patient care. An overview of technological science concepts essential for modern healthcare applications is offered to deepen an understanding of critical technologies and the impact on patient care. A detailed examination of intraoperative case management, focusing on critical aspects of the profession is covered. This course aims to enhance the knowledge and skills necessary for effective and safe surgical practices for those pursuing careers in surgical technology.

Corequisite(s): ST 115.
Pre/Corequisite(s): BIO 114 or BIO 220

ST 115 - Clinical Practice I

4 Credit(s)
This course is designed to provide key concepts and practices essential to the practical aspect of surgical technology. The principles of professionalism and ethical behavior expected in a surgical environment is practiced. Student explore technological science concepts related to electricity and laser that are applied to modern surgical procedures. The course focuses on the importance of a sterile environment and the application of aseptic technique. The lab provides the opportunity to prepare and assist for perioperative care management throughout the surgical process. Students will gain hands-on experiences that enable the development of critical thinking and technical skills necessary to excel in the surgical technology profession.

Prerequisite(s): None
Corequisite(s): ST 105
Pre/Corequisite(s): BIO 114 or BIO 220

Spring Semester (14/15 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

- Math Core Requirement (3 Credits)*

ST 150 - Surgical Technology II

4 Credit(s)
This comprehensive course curriculum covers a wide range of topics, including medical terminology, anatomy and physiology, pathophysiology, and the use of surgical equipment, instrumentation, and supplies. Students will gain a deep understanding of intraoperative skills, ensuring precision of task performance. Additionally, an in-depth coverage of various surgical specialties, such as general, obstetrics and gynecology, otorhinolaryngology, and orthopedics surgery are covered, preparing students to meet the unique demands of each field. Students are assured to be integral

members of the surgical team, contributing to the success of surgical procedures and the overall well-being of patients.

Prerequisite(s): ST 105, ST 115.
Corequisite(s): ST 155.
Pre/Corequisite(s): BIO 115 or BIO 225 , Math Core Requirement

ST 155 - Clinical Practice II

4 Credit(s)
This course is designed to provide key concepts and practices essential to the practical aspect of surgical specialties that correlate with didactic portion of the program. The lab provides the opportunity to prepare and assist for perioperative care management throughout the surgical process. Students will gain hands-on experiences that enable the development of critical thinking and technical skills necessary to excel in future clinical rotation and the surgical technology profession.

Prerequisite(s): ST 115, ST 105;
Corequisite(s): ST 150.
Pre/Corequisite(s): BIO 115 , BIO 225 , MATH Core requirement

Summer Semester (3 Credits)

ST 180 - Clinical Experience

3 Credit(s)
This course marks the start of a clinical rotation at an assigned site, where students take on the role of a surgical technology scrub. Utilizing concepts learned in previous courses, students actively participate in surgical cases. Each case performed during the rotation is documented for verification. This rotation is crucial as students begin to complete the required cases needed for graduation and eligibility to sit for the National Certification Examination.

Prerequisite(s): ST 150, ST 155
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
Or

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ST 200 - Surgical Technology III

4 Credit(s)
This course examines the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The importance of professionalism as it relates to employable skills is emphasized. The critical aspects of intraoperative case management are covered. Students learn the progression of surgical procedures associated with the specialty. This course aims to enhance the knowledge and skills necessary of advanced surgical practices.

Prerequisite(s): ST 180
Corequisite(s): ST 210.
Pre/Corequisite(s): BIO 117 , PSYC 105 or PSYC 208

ST 210 - Clinical Practice III

4 Credit(s)
This course is designed to prepare students for the workforce by providing hands-on clinical experience in surgical technology. As a continuation of previous clinical practice courses, students will perform in the role of a student surgical technologist scrub during assigned clinical rotations. Students will apply previously learned concepts and skills in real-world settings, working under the supervision of experienced surgical professionals. Students will be assigned to various clinical settings, including hospitals and surgical centers, where they will participate in a range of surgical procedures. These rotations are designed to provide comprehensive exposure to different surgical specialties and environments.

Prerequisite(s): ST 155, ST 150.
Corequisite(s): ST 200.
Pre/Corequisite(s): BIO 117 , PSYC 105 or PSYC 208

Spring Semester (14 Credits)

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an

organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ST 250 - Surgical Technology IV

4 Credit(s)
This course examines the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The critical aspects of intraoperative case management are covered. Students learn the progression of surgical procedures associated with the specialty. This course aims to enhance the knowledge and skills necessary for advanced surgical practices.

Prerequisite(s): ST 200, ST 210.
Corequisite(s): ST 255, ST 260.
Pre/Corequisite(s): SPCH 101 or SPCH 105

ST 255 - Clinical Practice IV

4 Credit(s)
This course is a final rotation of hands-on experience in clinical practice. Students perform as a student surgical technology scrub role in assigned clinical rotations. Previously learned concepts and skills are applied in real-world settings, working under the supervision of experienced surgical professionals.

Prerequisite(s): ST 200, ST 210.
Corequisite(s): ST 250, ST 260
Pre/Corequisite(s): SPCH 101 or SPCH 105

ST 260 - Surgical Technology Seminar

3 Credit(s)
This course offers an in-depth review of the curriculum necessary to successfully pass the certification exam. Designed in alignment with the national board's content outline, the course provides a structured and comprehensive overview of all key topics. Students will engage with detailed material, practice questions, and exam strategies to ensure thorough preparation. By the end of the course, participants will have a solid understanding of the subject matter and the confidence to excel in the certification exam.

Prerequisite(s): ST 200 , ST 210
Corequisite(s): ST 250, ST 255
Pre/Corequisite(s): SPCH 101 or SPCH 105

Total Credits (60/62)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to the General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

*General Education Core Requirements

Associate in Applied Science General Education Requirements

Technical Studies, A.A.S.

Major Code: 456

Northern works with employers or agencies to develop programs that incorporate training from the sponsor and combine it with general education and technical training provided by the College to offer an associate's degree. Students must be employees or clients of the sponsor to be eligible for enrollment in this program. Required courses are specified in agreements between the College and the sponsor.

Major Code: 451

Currently there is a Technical Studies degree available as a Child and Family Specialist with Northern Panhandle Headstart of West Virginia.

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Demonstrate an understanding of technical skills required in the specific occupational area.

The Technical Studies program generally has four components:

- General education core.
- Technical core.
- Technical specialty.
- And in addition, some programs have an on-the-job training component.

Specific agreements that list course requirements for each component are available from the College Counselors or the Vice President of Economic and Workforce Development.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

CIP Code: 419999

General Education Core Requirements

Associate in Applied Science General Education Requirements

Welding Technology, A.A.S.

Major Code: 238

The Welding Technology program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld plate and pipe in various processes in all positions to American Welding Society (AWS) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW), TIG welding and MIG welding. Safety, selection of proper equipment, selection of appropriate filler materials, and proper weld techniques are stressed throughout the curriculum. In addition, students will be trained in reading prints with welding symbols and will have a basic understanding of metallurgy and layout and fabrication.

The Welding Technology program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advanced standing and should confer with program faculty and/or advisors about processes to obtain advanced standing.

Upon completion of this program, graduates will be able to:

· Demonstrate safe practices in all welding activities.

· Demonstrate ability to read and apply welding prints and symbols.

· Perform basic processes of oxyacetylene welding and cutting

· Demonstrate ability to weld Fillet welds in all positions to AWS standards

· Demonstrate ability to weld Groove welds in all positions on plate and pipe to AWS standards.

· Apply basic understanding of metallurgy in performing welds and selecting appropriate processes and materials.

· Understand how to start and complete a fabrication project.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $30,000 to $80,000 for welder and $55,000 to $120,000 for Welding supervisors. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

Job Titles: Aluminum Welder, Fabrication Welder, Fabricator, FCAW Welder, Fitter/Welder, Maintenance Welder, GMAW Welder, GTAW Welder, SMAW Welder

Wage and Employment Trends:

- Wage Range: $38,000 to $80,000 annual (Onet, 2016)
- Projected Growth 5-9% (Onet, 2016)
- Certification Options: American Welding Society

CIP Code: 480508

First Year

Fall Semester (16 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

WELD 100 - Basic Weld Inspection

1 Credit(s)
This course presents the nomenclature and procedures for basic weld inspection and identify weld discontinuities and defects.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

Spring Semester (16 Credits)

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

Second Year

Fall Semester (14 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

WELD 202 - Beginning MIG

3 Credit(s)
This course introduces students to the safety, nomenclature and set up procedures for gas and metal arc welding (MIG). Students will perform open Single-V-Groove welds on plate without backing. Students will weld in all four positions. Additional topics include wire specifications, joint design, shielding gasses, and production of beads and joints.

WELD 204 - Advanced MIG

3 Credit(s)
This course, which is a continuation of WELD 202 , students will continue to develop advanced skills in MIG welding. Students will perform welds in all four positions on plate with backing and aluminum. Welds will be testing to AWS non-destructive standards.

Pre/Corequisite(s): WELD 202

WELD 210 - Flux Core Welding

3 Credit(s)
Students will learn the safety, nomenclature, set up procedures and techniques associated with flux core arc welding. Students will weld on pads in each of the four positions. Techniques will include beads, lap joints, tee joints and butt joints.

WELD 215 - Metallurgy

2 Credit(s)
This course presents basic principles of metallurgy as they relate to welding and fabrication. Students will study properties of both ferrous and non-ferrous metals. Topics will include manufacture, weld preparation, surface preparation, heat treatment before and after welding, alloys of special steel, and classification of steels.

Spring Semester (15 Credits)

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

WELD 206 - Beginning TIG

3 Credit(s)
In this course students will be introduced to gas tungsten arc welding (GTAW or TIG) with an emphasis on safety, machine set-up, filler rods, and shielding gas identification. Students will produce beads, bead patterns and joints in all four positions. Students will perform welds on plate without backing.

WELD 208 - Advanced TIG

3 Credit(s)
In a continuation of WELD 206, students will continue to develop advanced skills in TIG welding. Students will perform welds in all four positions on plate and on pipe.

Pre/Corequisite(s): WELD 206.

WELD 220 - Layout and Fabrication

3 Credit(s)
Students will perform fit-up procedures to set up and align parts for fabrication according to blueprint design and

specifications. Students will apply mathematics for layout. The course includes estimation, structural and pipe-fitting techniques, and making templates and jigs.

Prerequisite(s): WELD 112

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Welding: Combination Pipe, Advanced Skills Set Program

Major Code: 739S

The Combination Pipe Welding Advanced Skills Set Program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld pipe in various processes in all positions to AWS (American Welding Society) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW).

The Combination Pipe Welding Program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advance standing and should confer with program faculty and/or advisors about processed to obtain advanced standing.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld pipe in all positions using SMAW to AWS standards.
- Demonstrate ability to weld fillet and butt welds in all positions on both plate and pipe, utilizing GTAW to AWS standards.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $40,000 to $80,000 for Combination Pipe Welder. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

CIP Code: 480508

Spring Semester

WELD 115 - Fabrication Drawing & Fitter Skills

3 Credit(s)
This course will provide an introduction to reading and interpreting welding print symbols, welding blueprints, isometric drawings, P&ID's, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication and assembly. Applies basic mathematics to calculate take offs, make material cut list, and provides the students the skills needed to properly layout and fabricate their work.

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

WELD 206 - Beginning TIG

3 Credit(s)
In this course students will be introduced to gas tungsten arc welding (GTAW or TIG) with an emphasis on safety, machine set-up, filler rods, and shielding gas identification. Students will produce beads, bead patterns and joints in all four positions. Students will perform welds on plate without backing.

WELD 208 - Advanced TIG

3 Credit(s)
In a continuation of WELD 206, students will continue to develop advanced skills in TIG welding. Students will perform welds in all four positions on plate and on pipe.

Pre/Corequisite(s): WELD 206.

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (18)

These classes will take 15 weeks to complete and will require a commitment of 7 am - 2 pm, Monday through Friday, during the spring semester. Upon completion of these classes, students will receive 18 college credit hours or 45 CEU's depending on the student's needs. This program is not eligible for Title IV financial aid. Options are available to take additional general education requirements to obtain a college certificate or degree.

Welding: Oil and Gas Pipe, C.A.S.

Major Code: 239

The Oil & Gas Pipe Welding program is designed to prepare an individual with the advanced skills needed for the ever changing job market. Students in the program will weld pipe utilizing Shielded Metal Arc Welding (SMAW) in all positions to American Welding Society (AWS) standards. All technical courses in the program provide extensive hands-on experiences.

The Oil & Gas Pipe Welding program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advanced standing and should confer with program faculty and/or advisors about processes to obtain advanced standing.

Upon completion of this program, graduates will be able to:

- Communicate effectively in oral and written formats.
- Demonstrate problem-solving and critical thinking skills.
- Employ mathematical and science literacy skills.
- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld pipe in the 5G and 6G positions using SMAW in the downhill progression
- Demonstrate how to read and identify drawings, prints and symbols.
- Demonstrate the ability to layout and cut pipe manually for branch and butt joints.

Job Opportunities: Graduating students will have the skills necessary to find work as a construction pipe welder, pipeline welder, or facility maintenance welder in a variety of settings. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

Wage and Employment Trends:

- According to the Bureau of Labor Statistics (BLS), oil and gas pipe welders earn an average annual salary of $40,000 to $80,000 per year.
- The employment outlook is currently above average at the regional, state, and national levels.

CIP Code: 480508

Fall Semester (16 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

Spring Semester (14 Credits)

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Welding: Structural Steel, Advanced Skills Set Program

Major Code: 738S

The Structural Steel Welding Advanced Skills Set Program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld plate in various processes in all positions to AWS (American Welding Society) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Metal Arc Welding (GMAW).

The Structural Steel Welding Program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advance standing and should confer with program faculty and/or advisors about processed to obtain advanced standing.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld fillet welds in all positions on structural steel plate using SMAW to AWS standards.
- Demonstrate ability to weld fillet welds in all positions on structural steel plate using GMAW to AWS standards.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $30,000 to $75,000 for Structure Steel Welder. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

CIP Code: 480508

Fall Semester

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and

teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

WELD 202 - Beginning MIG

3 Credit(s)
This course introduces students to the safety, nomenclature and set up procedures for gas and metal arc welding (MIG). Students will perform open Single-V-Groove welds on plate without backing. Students will weld in all four positions. Additional topics include wire specifications, joint design, shielding gasses, and production of beads and joints.

WELD 210 - Flux Core Welding

3 Credit(s)
Students will learn the safety, nomenclature, set up procedures and techniques associated with flux core arc welding. Students will weld on pads in each of the four positions. Techniques will include beads, lap joints, tee joints and butt joints.

Total Credits (18)

These classes will take 15 weeks to complete and will require a commitment of 7 am - 2 pm, Monday through Friday, during the fall semester. Upon completion of these classes, students will receive 18 college credit hours or 45 CEU's depending on the student's needs. This program is not eligible for Title IV financial aid. Options are available to take additional general education requirements to obtain a college certificate or degree.

Programs of Study

West Virginia Northern Community College is authorized by the West Virginia Council for Community and Technical College Education and Higher Education Policy Commission to offer the following programs resulting in the granting of Associate in Arts degrees (A.A.), Associate in Science degrees (A.S.), Associate in Applied Science degrees (A.A.S.) and Certificate in Applied Science (C.A.S.). NOTE: Students can apply up to three credit hours of continuing education credit toward a degree.

Transfer Partners

BC = Bethany College / **FUS** = Franciscan University of Steubenville / **WLU** = West Liberty University / **WVU** = West Virginia University / **WU** = Wheeling University / **WVSU** = West Virginia State University / **UC** = University of Charleston

Associate

Associate in Arts Degree, English/Humanities Concentration

Major Code: 343

This program is designed for those who expect to transfer to a college or university to study in English, literature and/or humanities. The curriculum gives students a broad background in liberal arts with an emphasis on English, literature, humanities, and social sciences.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of important literary works and writers and their relationship to historical and sociological events.
- Demonstrate a knowledge of philosophies and the expression of ideas and values through the arts.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Comunicate effectively in oral and written formats.
    - Employ or utilize information access in literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in English, literature, secondary education, English education, or another liberal arts discipline, and may go on to earn an advanced degree.

CIP Code: 240101

First Year

Fall Semester (15/17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16/17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirement **1 Credit(s)** #

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

* Choose from: ENG 200, ENG 201, ENG 208, ENG 210, ENG 211, ENG 225, ENG 226.

** Choose from: HIST 100, HIST 101, HIST 110 and HIST 111.

#HPE requirements can be fulfilled with HPE 100, HPE 101 or HPE 105.

Concentration and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours – it is recommended that students in this program choose their six hours of HUM core requirements from ART, ENG, MUS, or PHIL.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, General Concentration

Major Code: 100

This program is designed for those who expect to transfer to a college or university to study in a variety of liberal arts programs, including art, communication, education, English, journalism, library science, philosophy, pre-law, political science, or the social sciences. The curriculum gives students a broad background in liberal arts with an emphasis in the Liberal Arts disciplines.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of theories, concepts, and principles relevant to the liberal arts.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in a variety of liberal arts disciplines, and may go on to earn an advanced degree.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)**
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirement **1 Credit(s)** #
- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

*Choose from: Any ART, ENG, ECON, HIST, MUS, SOC, SS, PSYC, or PHIL (3 hours from 3 separate disciplines to equal 9 hours).

**Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with HPE 100, HPE 101 or HPE 105.

Concentration electives and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, History/Social Science Concentration

Major Code: 342

This program is designed for those who expect to transfer to a college or university to study in history, sociology, political science, economics or other social science disciplines. The curriculum gives students a broad background in liberal arts with an emphasis on history, humanities, and social sciences.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of theories, concepts and principles relevant to the social sciences.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program may transfer to a four-year college or university to complete a bachelor's degree in history, social science, sociology, political science, economics or another social sciences discipline.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirements **1 Credit(s)** #
- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

* Choose from: ECON 104, ECON 105, ECON 120, GEOG 205, HIST 100, HIST 101, HIST 110, HIST 111, HS 147, PSYC 208, SOC 255, SOC 276 .

**Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with any HPE 100, HPE 101 or HPE 105.

Concentration electives and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to see if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Arts Degree, Psychology Concentration

Major Code: 119

This program is designed for those who expect to transfer to a college or university to study psychology. The curriculum gives students a broad background in liberal arts with an emphasis on psychology, social sciences, and humanities.

Upon completion of the program, graduates will be able to:

- Demonstrate knowledge of basic concepts, theories, and principles used in the field of psychology.
- Demonstrate knowledge and skills related to general education competencies for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Employ or utilize information access and literacy skills.
    - Demonstrate problem-solving and critical thinking skills.
    - Employ mathematical and science reasoning skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

Graduates of this program would plan to transfer to a four-year college or university to complete a bachelor's degree in psychology, and may go on to earn an advanced degree. At the bachelor's level, they may expect to become case managers or service providers in public or private agencies which provide psychological and social services. With an advanced degree, they may expect to become licensed clinical or counseling psychologists working in public or private agencies which provide psychological services.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (15-17 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing

proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** **
- MATH - Mathematics Core Requirement **3(5) Credit(s)**

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **4(5) Credit(s)**
  or
- SCI - Science Core Requirement **4 Credit(s)**

- SS - Social Science Core Requirement **3 Credit(s)**
- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Second Year

Fall Semester (14 Credits)

- HPE - Physical Education Requirements **1 Credit(s)**

- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *

Spring Semester (15 Credits)

- HUM - Humanities Core Requirement **3 Credit(s)**

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- Concentration Elective **3 Credit(s)** *
- Elective **3 Credit(s)**

Total Credits (60-63)

*Choose from: HS 147, HS 150, HS 210, PSYC 155, PSYC 200, PSYC 208, PSYC 210, PSYC 218, SS 207.

** Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

#HPE requirements can be fulfilled with any HPE 100, HPE 101 or HPE 105.

Concentration and general electives should be selected in consultation with an advisor and/or the college to which the student intends to transfer.

Note: Courses used to fulfill core requirements may not also be used as concentration hours.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements in HUM, HIST, SS, MATH, and SCI.

General Education Core Requirements

Associate in Arts General Education Requirements

Associate in Science Degree

Major Code: 102

The A.S. program concentration in General Science aims to equip students with a versatile skill set encompassing theoretical understanding, hands-on experience, and effective communication in engineering, mathematics, and/or physical and earth sciences. Through a diverse range of courses including computer science, statistics, and scientific writing, students are immersed in an expansive curriculum. This ensures that upon graduation, they possess a strong comprehension and capability to apply and convey fundamental scientific principles. The program endeavors to prepare students for careers across various scientific fields that rely on rigorous methodologies or to smoothly transition into further education at a four-year institution.

While the generic layout offers a broad foundation, students can also work with a faculty advisor to pursue specialized tracks in math, chemistry, physics, or fully remote options.

Additionally, upon completion, graduates will be able to:

1. Acquire a solid theoretical foundation in the scientific fields of interest such as engineering, mathematics and/or the physical and earth sciences through rigorous coursework and hands-on learning experiences.

2. Apply the foundational scientific principles, computer science skills, and statistics understanding to the scientific field of interest to address complex real-world challenges effectively, fostering critical thinking, experimentation, and innovation.

3. Communicate scientific concepts and findings clearly and persuasively, both orally and in writing, to diverse audiences.

4. Explore the diverse career pathways including entry-level roles in the government, industry or academy as well as transition into further education at four-year institutions.

CIP Code: 240199

First Year

Fall Semester (14 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- MATH - Mathematics Core Requirement **4 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- MATH - Mathematics Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement **4 Credit(s)**
- SS - Social Science Core Requirement **3 Credit(s)**
- Elective **3 Credit(s)**

Second Year

Fall Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)** *
- HUM - Humanities Core Requirement **3 Credit(s)**

- MATH - Mathematics Electives **9 Credit(s)**
  or
- SCI - Science Electives **9 Credit(s)**

Spring Semester (15 Credits)

- MATH - Mathematics Core Requirements **6 Credit(s)**

or

- SCI - Science Core Requirements **6 Credit(s)**

- Elective **3 Credit(s)**

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

- SS - Social Science Core Requirement **3 Credit(s)**

Total Credits (60)

Students must see their academic advisor to plan courses for a concentration in Science or Mathematics.

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

Refer to General Education Core Requirements for the Associate in Science Program listed below.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Science General Education Requirements

Associate in Science Degree, Biology Concentration

Some courses in this major can be customized. If you're interested in this program, be sure to speak with an advisor to explore your options. You can reach an advisor by emailing advising@wvncc.edu or calling 304-214-8810.

Major Code: 274

The Biology Concentration A.S. program is designed to empower students with a multifaceted skill set, combining theoretical knowledge, practical experience, and effective communication abilities in the field of biological sciences. Throughout the program, students engage in a variety of courses covering different levels of biological disciplines, ranging from molecular biology to organismal biology and ecology. This diverse curriculum ensures that graduates possess a solid understanding of key biological concepts and principles. The degree aims to equip students with the necessary knowledge and skills to pursue careers in biology-related fields or seamlessly transition into higher education at a four-year institution.

While the generic layout provides a broad foundation for careers in biology, students can also work with a faculty advisor to pursue specialized tracks. These tracks can facilitate a smooth transfer to a four-year institution for degree continuation or help develop the skills needed to start a biology-related business as an entrepreneur.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

1. Acquire a foundation in biological disciplines across various levels of structural organization, encompassing molecular/ cellular, organismal, and ecological aspects.

2. Utilize scientific principles to examine and address challenges in diverse biological domains.

3. Achieve students' proficiency in effectively communicating key biological concepts, both verbally and in writing, to a broad range of audiences.

4. Explore essential hands-on experiences for pursuing entry-level roles in the field of biology or progressing to higher education at the bachelor's level.

CIP Code: 240199

First Year

Fall Semester (15 Credits)

Fall Semester (15 Credits)

BIO 105 - Principals of Biology for Science Majors

4 Credit(s)
Principles of Biology is a course that introduces students to the scientific method and the fundamental concepts of biology. The primary focus of the course is cell and molecular biology. Emphasis is placed on chemistry, energy, metabolism, cell reproduction, and biotechnological applications. Selected topics of genetics and evolution are presented. Physiology is intertwined throughout the course. The course is intended for Associate of Science majors with a Biology Concentration and includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement test scores.
Pre/Corequisite(s): ENG 101

CHEM 108 - General Chemistry I

4 Credit(s)
This course is the first semester of a two-semester sequence in general college chemistry. The course is a study of the metric system, scientific mathematics, atomic structure, chemical bonding, gases, solution and chemical equilibrium. This course includes both a lecture and lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 101 or MATH 108 or MATH 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH CORE (4)

Spring Semester (14 Credits)

Spring Semester (14 Credits)

CHEM 109 - General Chemistry II

4 Credit(s)
This course is a continuation of CHEM 108 with an investigation of selected metals and nonmetals, electrochemistry, nuclear chemistry, thermodynamics, ionic equilibria, acids and bases, kinetics and an introduction to organic chemistry. The laboratory includes some semi-micro qualitative analysis as well as experiments on the above topics. This course includes both a lecture and lab component.

Prerequisite(s): CHEM 108.

COMMUNICATIONS CORE (3)
Choose ENG 102 or SPCH 105
ORGANISMAL BIOLOGY (4)
CHOOSE

- BIO 112 , BIO 113 , BIO 220 , or BIO 225

SOCIAL SCIENCE CORE (3)

Second Year

Fall Semester (17 Credits)

Fall Semester (17 Credits)

CHOOSE

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

OR

BIO 210 - Molecular and Cellular Biology

4 Credit(s)
This course outlines topics relating to cellular and molecular Biology and its applications. Students will closely examine cell and organelle structure and function, basic genetic mechanisms, physiology, and organization. Topics of

the course also include cell division and growth, basic human immune function, oncogenic transformation, chromatin structure, RNA synthesis, biochemistry, and cellular communication. Students must register for a lecture and a laboratory portion of the course.

Prerequisite(s): BIO 110 and CHEM 108
Corequisite(s): None
Pre/Corequisite(s): None

ECOLOGY AND GENERAL SCIENCE TO GET 4 TOTAL CREDITS IN THIS AREA

- BIO 218 , BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , MATH 210 , MATH 279 , MATH 280 , MATH 281 , PHYS 104 , PHYS 105 , PHYS 120 , OR PHYS 121

HUMANITIES CORE (3)
RESTRICTIVE ELECTIVE* (6)

Spring Semester (14 Credits)

Spring Semester (14 Credits)

BIO 227 - Applied Bioscience

3 Credit(s)
The capstone course in biology equips students with a thorough grasp of the practical and global aspects across various biology fields, with a distinct emphasis on ecology. The course involves in-depth examinations of specialized research methods and approaches pertinent to biology, encompassing the utilization of research databases, the development of scientific proposals, and the nuances associated with publications. Students will apply the knowledge gained to identify the substantial challenges related to the biology field, and critically review existing solutions, or propose novel ones, culminating in presentations within professional settings.

Prerequisite(s): BIO 105

ECOLOGY AND GENERAL SCIENCE TO GET TO 8 TOTAL HOURS IN THIS AREA (5)

- BIO 218, BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , MATH 210 , MATH 279 , MATH 280 , MATH 281 , PHYS 104 , PHYS 105 , PHYS 120 , OR PHYS 121

Total Credits (60-62)

Refer to General Education Core Requirements for the Associate in Science Program listed below.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Science General Education Core Requirements

*Restrictive Elective Option

AHS 103 , BA 100 , BIO 110 , BIO 112 , BIO 113 , BIO 114 , BIO 115 , BIO 117 , BIO 204 , BIO 210 , BIO 218 , BIO 220 , BIO 225 , BIO 230 , CHEM 100 , CHEM 101 , CHEM 204 , CHEM 207 , CHEM 209 , CIT 101 , CIT 105 , CIT 107 , CIT 117 , CIT 120 , CIT 123 , CIT 142 , CIT 182 , CIT 202 ,CIT 222 , CIT 232 , CIT 235 , ECON 104 , ECON 105 , GEOG 205 HIST 100 , HIST 101 , HIST 110 , HIST 111 , MATH 210 , MATH 279 ,MATH 280 , MATH 281 , MGT 253 PHYS 104 , PHYS 105 , PHYS 120 , PHYS 121 , POLS 102 , PSYC 105 , PSYC 155 , PSYC 200 , PSYC 208 PSYC 210 , SOC 125 , SS 255

Transfer Pathways

Pre-Bachelor's in Biology / Health Sciences / Environmental Science

Designed for students planning to transfer to a four-year institution in biology, health sciences, environmental science, or related fields. This pathway emphasizes upper-level biology, chemistry, calculus, and physics coursework and mirrors the academic expectations of junior-year transfer students.

Recommended Electives:
BIO 210, BIO 218, BIO 220, BIO 225, BIO 230, CHEM 204, CHEM 207, CHEM 209, PHYS 120, PHYS 121, MATH 210, MATH 279, MATH 280, or MATH 281.

Optional Enrichment (Select as Appropriate):
BIO 112, BIO 113, GEOG 205, PSYC 200, SOC 125, POLS 102, HIST 110, HIST 111, PHYS 104, PHYS 105.

Human Biology / Health Sciences Pathway

Designed for students preparing for nursing or other health science programs. This pathway emphasizes human biology, anatomy and physiology, chemistry, psychology, and social sciences to build a strong clinical foundation while maintaining a manageable quantitative load.

Recommended Electives:
AHS 103, BIO 220, BIO 225, BIO 230, CHEM 100, CHEM 101, PSYC 105, PSYC 200, PSYC 208, PSYC 210, SOC 125, MATH 210.

Optional Enrichment:
BIO 114, BIO115, BIO117, BIO 204, BIO 115, PHYS 104, PHYS 105, PSYC 155, SS 255.

Workforce: Lab Technician / Research Assistant Pathway

Designed for students seeking immediate workforce entry into laboratory settings, biotech support roles, hospital laboratories, or research technician positions. This pathway strengthens the science foundation with applied data handling, computing, and technical skills, creating a highly employable combination.

Recommended Electives:
BIO 204, BIO 210, BIO 218, CHEM 204, CHEM 207, CIT 101, CIT 105, CIT 120, CIT 182, MATH 210.

Optional Technical Enhancement:
CIT 107, CIT 117, CIT 123, CIT 142, CIT 202, CIT 222, CIT 232, CIT 235, CIT 253.

Bio + Business Pathway

Designed for students interested in the intersection of biology, entrepreneurship, healthcare systems, or environmental enterprise. Students combine upper-level biology coursework with foundational business and economic principles to strengthen workforce readiness or prepare for transfer into business-related science fields.

Recommended Electives:
BIO 210, BIO 218, BIO 220 or BIO 225, BA 100, ECON 104, ECON 105, MGT 253, MATH 210, CIT 101, CIT 105, CIT 120, CIT 182.

Optional Enrichment:
GEOG 205, POLS 102, HIST 100, HIST 101, SS 255, CIT 202.

Associate in Applied Science

Accounting/Business Studies, A.A.S.

Major Code: 120

This option is designed to meet the needs of modern business and industry for accounting professionals. The curriculum will help students develop habits of critical, logical thinking while they learn to record, report and interpret data using basic accounting as well as electronic procedures. Computerized software and accounting applications will be emphasized.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

Graduates of this program can expect to obtain employment in positions such as accounts receivable, accounts payable, accounting clerk, payroll clerk, billing manager, and customer service representatives.

Graduates can expect to be employed in medical and banking facilities, industrial and manufacturing plants, communication businesses, and various small businesses.

CIP Code: 520101

First Year

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Or

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Spring Semester (15 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

ACC 205 - Cost & Managerial Accounting

3 Credit(s)
This course is designed for accounting and business majors and covers cost and managerial theories, concepts and applications. Job order costing, process costing, activity based costing, cost-volume-profit analysis, master budgets, flexible budgets, cost allocation, short-term business decisions and capital investment decisions are covered in detail.

Prerequisite(s): ACC 123.

ACC 224 - Intermediate Accounting I

3 Credit(s)
This course provides an in-depth study of accounting principles. Topics include, but are not limited to, financial reporting; the conceptual framework of accounting; the accounting cycle; preparation and interpretation of the income statement, balance sheet, and notes to the financial statements; financial statement analysis; time value of money concepts; short-term and long-term operating assets.

Prerequisite(s): ACC 123.

BA 223 - Business Finance

3 Credit(s)
This course examines business structures, governance, and management; financing businesses; financial planning and decision-making; interpreting financial statements; using financial ratios to measure valuation. The course will also explore business investments; capital formation; financial institutions. Students will also discuss the importance of ethics and social responsibility in corporate life.

Prerequisite(s): ACC 122
Corequisite(s): None
Pre/Corequisite(s): None

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

MGT 250 - Principles of Management

3 Credit(s)
This course focuses on the daily operations and duties of the managers with regard to the stakeholders, finances and other motivational resources. Problem solving, decision making, communicating, motivating and delegating skills are emphasized using the "real world" approaches in conjunction with the standard management practices. Students are taught alternatives to situations and the procedure to evaluate and derive these alternatives.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

ACC 222 - Computerized Accounting

3 Credit(s)
This course is an introduction to a cloud-based financial system. Students will utilize the system to complete the accounting cycle for both a service and a merchandise business. Topics include banking, accounts payable, accounts receivable, inventory, payroll, sales tax reporting, income taxes, and financial statements. This class requires a computer, internet access, as well as extensive computer work.

Pre/Corequisite(s): ACC 123 or permission of instructor.

ACC 225 - Intermediate Accounting II

3 Credit(s)
This course is a continuation of ACC 224. Topics include but are not limited to, accounting for asset impairments; operating liabilities; financing liabilities; shareholder equity; comprehensive income; investments in debt and equity securities; accounting for income taxes, leases, and pensions; preparation and interpretation of the statement of cash flows.

Prerequisite(s): ACC 224.

ACC 240 - Business Taxation

3 Credit(s)
This course emphasizes income tax applications and principles of taxation. It provides detailed discussions on recognizing income, employee compensation, operating expenses, property acquisitions and dispositions, along with tax-deferred requirements of proprietorships, partnerships, and corporations. Tax planning, wealth building, and regulatory record-keeping requirements will be addressed.

Prerequisite(s): ACC 123.

ACC 250 - Accounting Capstone

3 Credit(s)
Students in this course will acquire comprehensive knowledge in bookkeeping, covering a range of topics such as adjusting entries, rectifying accounting errors, payroll management, depreciation, inventory handling, and internal controls. Additionally, students will be equipped to take a national certification exam facilitated by the American Institute of Professional Bookkeepers. Successful completion of the certification exam is optional and not a requirement of the course.

Prerequisite(s): ACC 224

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60/61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Advanced Manufacturing and Automation, A.A.S.

Major Code: 244

In the Advanced Manufacturing and Automation A.A.S. program, students develop practical, hands-on skills focused on the operation, programming, and implementation of advanced manufacturing technologies being used in manufacturing today.

The curriculum integrates manufacturing processes and technologies used in contemporary production facilities. Students receive instruction in industrial robotics, PLC-based automation (Programmable Logic Controllers), CNC machining and programming (Computer Numerical Control), process control, quality control, metrology, and smart manufacturing systems. Coursework is designed to develop an understanding of how automated equipment, production processes, and manufacturing technologies operate as integrated systems.

All technical courses include a required hands-on laboratory component that allows students to apply theory to real-world manufacturing systems. Students develop practical skills in programming, monitoring, and improving automated production processes while adhering to established safety, quality, and industry standards. Instruction also emphasizes documentation, data collection, process monitoring, teamwork, and continuous improvement practices.

Additionally upon completion, graduates will:

1. Demonstrate safe work practices appropriate for commercial and industrial manufacturing environments.

2. Apply mechanical and electrical principles to the operation of advanced manufacturing systems, including hydraulics, pneumatics, electrical systems, Programmable Logic Controllers (PLCs), robotics, Computer Numerical Control (CNC) machining, quality systems, and alternative energy technologies.

3. Program automated manufacturing systems using PLCs, industrial robotics, and CNC technologies to support production processes.

4. Configure automated and CNC-based manufacturing systems in accordance with established safety and quality standards.

5. Evaluate manufacturing processes using precision measurement, inspection techniques, and quality documentation.

6. Interpret technical information, including prints, schematics, circuit diagrams, ladder logic, CNC programs, and technical manuals used in manufacturing environments.

Graduates of the program are prepared for employment in advanced manufacturing roles supporting automated production, robotics systems, PLC-controlled processes, CNC manufacturing operations, quality and process improvement, and emerging manufacturing technologies.

Employment opportunities for graduates remain strong as manufacturing industries continue to modernize and face workforce shortages driven by retirements and increased reliance on automation, robotics, CNC machining, quality systems, and sustainable energy solutions. Graduates may find employment in steel, chemical processing, power generation, renewable energy, advanced manufacturing, fabrication, and related industries.

Common Job Titles Include: Advanced Manufacturing Technician, Automation Technician, Robotics Technician, PLC / Automation Technician, Manufacturing Engineering Technician, Mechatronics Technician, CNC Manufacturing Technician, Quality Technician, Quality Control Technician, Process Technician, Product Testing Technician, Test Technician.

CIP Code: 150406

First Year

Fall Semester (14 Credits)

AMT 101 - Modern Manufacturing: Processes and Robotics

3 Credit(s)
This course introduces the fundamentals of modern manufacturing with a focus on automation and robotics. Students explore basic manufacturing concepts, system components, and the role of mechanical, electrical, and pneumatic technologies in automated systems. The course emphasizes introductory control logic, system operation, and basic troubleshooting. Students also develop an understanding of programmable logic controllers (PLCs), safe work practices, and teamwork in manufacturing environments.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current,

voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 105 - Intro Computer Aided Drafting

3 Credit(s)
Students will learn to create engineering drawings with a computer. Students take field measurements, perform hands on Computer Aided Drafting (CAD) entry, and publish the final drawings needed to communicate to technical professionals. As an introduction to a variety of drawing skills, this course is excellent for the beginning CAD student.

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

AMT 110 - Computer Numerical Control (CNC) Manufacturing

3 Credit(s)
This course introduces the fundamentals of CNC machining and manufacturing processes. Students explore basic CNC equipment, machine components, tooling, and introductory programming concepts. The course emphasizes CNC operation, setup procedures, and interpretation of G-code and conversational programming. Students also develop skills in measurement, safety, and basic machining practices used in modern manufacturing environments.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

Or

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and

general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MEC 140 - Programmable Controllers I

3 Credit(s)
The course introduces the basic theory, operation and programming of programmable logic controllers. Programming examples, set-up examples and troubleshooting are demonstrated. Also included is PLC timing, counting, and arithmetic and logic sequences.

Prerequisite(s): APT 155
Pre/Corequisite(s): APT 103 and APT 104 with a minimum grade of "C" OR MSHA 80 hour Apprentice Miner Class.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
Or

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (17 Credits)

AMT 201 - Advanced Manufacturing & Automation

3 Credit(s)
This course introduces advanced manufacturing and automation systems with an emphasis on integrated CNC and robotics applications. Students explore system integration, Industry 4.0 concepts, and the interaction between mechanical, electrical, and control components in automated environments. The course emphasizes CNC and robotic programming, system operation, troubleshooting, and production workflows. Students also develop skills in safety, quality control, and teamwork within advanced manufacturing systems.

Prerequisite(s): AMT 101 , AMT 110
Corequisite(s): None
Pre/Corequisite(s): None

APT 230 - Supervisory Control and Data Acquisition

3 Credit(s)
This comprehensive course covers the essentials of SCADA and PLC systems, which are often used in close

association with each other. Although the emphasis of the course will be on practical industry topics highlighting recent developments, using case studies, the "in-plant" application of SCADA, PLC technologies and various system communications fundamentals will be covered.

Prerequisite(s): MEC 140.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.
Or

PHYS 115 - Applied Physics

4 Credit(s)
This course is a study of the basic laws of physics in mechanics and electricity. Emphasis is placed upon the solution of problems relating to statics, dynamics, fluids, circuitry and electrical instruments. Problems are drawn from biology, medicine and engineering. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, satisfactory math placement or MATH 101.
Pre/Corequisite(s): ENG 101.

MEC 240 - Programmable Controllers II

3 Credit(s)
The course is a continuation of the field of industrial controls. Students will learn the principles of control systems and their application to production systems to achieve automation. Systems included in the course are stepper motors, programmable logic controllers, microprocessors, computers and feedback systems. Emphasis is placed on programmable logic controllers and the local area networks.

Prerequisite(s): MEC 140.

MEC 251 - Problem Solving & Teamwork Seminar

2 Credit(s)
The course is a capstone experience for the Advanced Manufacturing and Instrumentation Process Technology AAS programs. It is designed to reinforce and apply the knowledge and skills learned in communication, mathematics and technical courses and foster teamwork and problem solving skills. The course covers critical thinking skills, collection and analysis of data, quality control overview, teamwork and problem solving and decision making techniques and is intended to be an application of skills learned throughout the programs. Students who are able to secure an internship will complete the course objectives in a work environment instead of the classroom. Requires program director's approval.

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

Total Credits (62)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Applied Technology, A.A.S.

Major Code: 450

This program meets the needs of students currently in the workforce who would like to upgrade their skills and earn a degree. Students can select courses in a pathway aligned to industry careers or employers' needs. This degree would give students the flexibility to build their degree pathway to meet their career needs. The flexibility of the program would allow individuals to use previous coursework, possible Credit for Prior Learning and courses offered at convenient times to minimize the roadblocks to achieving a technical degree. Employment pathways include industrial jobs that require technical aptitude including maintenance, manufacturing, troubleshooting and operations related positions.

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Utilize technical skills required in the specific occupational area.

The Technical Studies program generally has four components:

- General education core.
- Technical core.
- Technical specialty.
- And in addition, some programs have an on-the-job training component.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP Code: 15.0699

A.A.S. General Education Requirements...15 Credits

Click here for a list of courses that will fulfill this requirement.

(must include one communication skills course and one computational skills course)

Technical Studies Requirements...6 Credits

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

Technical Specialty Electives...Minimum 27 Credits

May choose any courses from APT, MEC, PTRM, RAH, WELD

Electives...12 Credits

Can include classe from any discipline including additional technical electives.

Total Credits 60

Board of Governors, A.A.S.

Major Code: 445

The Board of Governors Associate in Applied Science degree program is a nontraditional, degree completion opportunity at the associate degree level specifically devised for adult learners to meet occupational goals or employment requirements, establish professional credentials, or achieve personal goals. This degree program provides the opportunity for adult learners to utilize credit for prior learning experiences via licenses, certificates, military credit, and other non-collegiate sources while assuring maximum credit transferability.

By completing this degree program, adult students can establish deserved credentials, achieve a personal sense of accomplishment, and position themselves for advancement into a baccalaureate program. The Board of Governors Associate in Applied Science degree increases educational access and degree opportunities for adults who have deferred or interrupted their educational plans. Such a program provides the base of the educational ladder for adults to accomplish the first level of educational advancement as well as develop the self-confidence and incentive to move

toward the completion of a baccalaureate degree. The degree program is designed to articulate with the WV Board of Regents Bachelor of Arts Degree.

Curriculum-The Board of Governors A.A.S. requires 60 credit hours that include 15 credit hours of general education in the following areas: 3 credit hours of Communication, 6 credit hours of Mathematics/Science, 3 credit hours in Social Science/Humanities, and 3 credit hours in computer literacy. The additional 45 credit hours are general electives. An optional capstone experience and an optional defined area of emphasis encompassing a broad range of content areas may be included. The structure of the degree assures flexibility in program design to meet the individual needs of adult students. The required general education courses assure the development of essential skills and competencies necessary for an associate degree level graduate. The general electives, with the opportunity for a defined area of emphasis, allow students to demonstrate and document a defined occupational proficiency. Students are encouraged to explore various options for obtaining credit for prior learning experiences including course articulation, standardized exams, challenge exams, credential validation and portfolio credit. The portfolio provides the opportunity for equating documented, college level, experiential learning to college credit. College courses successfully completed at regionally accredited institutions may be transferred into the program and applied toward the 60 credit requirement.

A student may apply any or all methods of extra-institutional credit toward the completion of the Board of Governors A.A.S. degree. Further details can be obtained by contacting the Advising Center or the Vice President for Learning.

Graduation Grade Point Average: 2.0

Residency Requirement: 12 credit hours from a WV public institution of higher education. A minimum of 6 credits required at the host institution.

Academic Forgiveness: All F's earned in College courses earned four or more years before admission to program are disregarded from the computation of the graduation grade point average. The "F" grades will not be deleted from the transcript.

Grades and Grading: Grading will follow the institution's current grading policy.

Admission Requirements: Students are eligible for admission to the program one year after graduation from high school. In case of those passing a high school equivalency examination, admission must be one year after their high school class has graduated. **A student with a regionally accredited associate level or baccalaureate degree is excluded from admission to the Board of Governors Associate in Applied Science degree program.**

Upon completion of the Board of Governors Associate in Applied Science degree program, students will meet their education goal as defined through the advising process.

CIP Code: 240102

General Education Core Requirements (15 Credits)

Associate in Applied Science General Education Requirements

Communications (3 Credits)

Mathematics/Sciences (6 Credits)

Social Sciences/Humanities (3 Credits)

Computer Literacy (3 Credits)

General Electives (45 Credits)

Includes credit hours for optional area of emphasis, portfolio course, and capstone course.

WVROCKS CLASSES: In an effort to make college more accessible to all West Virginians, the West Virginia Remote Online Collaborative Knowledge System (WVROCKS) has been designed. WVROCKS classes can be used to fulfill requirements in this program. For more information, visit the WVROCKS website at http://webhost-wp.wvnet.edu/wvrocks/. Available courses can be found on Northern's academic schedule under the subject ROCK.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Business Administration, Business Studies, A.A.S.

Major Code: 121

This option is designed for students who desire to explore the various opportunities available in business. The curriculum will provide a solid general business education and the necessary skills for graduates to enter the work force.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Market and promote products
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

CIP Code: 520101

First Year

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both

domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Choose

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Or

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Spring Semester (15 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

Choose

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

BA 223 - Business Finance

3 Credit(s)
This course examines business structures, governance, and management; financing businesses; financial planning and decision-making; interpreting financial statements; using financial ratios to measure valuation. The course will also explore business investments; capital formation; financial institutions. Students will also discuss the importance of ethics and social responsibility in corporate life.

Prerequisite(s): ACC 122
Corequisite(s): None
Pre/Corequisite(s): None

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

MGT 250 - Principles of Management

3 Credit(s)
This course focuses on the daily operations and duties of the managers with regard to the stakeholders, finances and other motivational resources. Problem solving, decision making, communicating, motivating and delegating skills are emphasized using the "real world" approaches in conjunction with the standard management practices. Students are taught alternatives to situations and the procedure to evaluate and derive these alternatives.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

ACC 222 - Computerized Accounting

3 Credit(s)
This course is an introduction to a cloud-based financial system. Students will utilize the system to complete the accounting cycle for both a service and a merchandise business. Topics include banking, accounts payable, accounts receivable, inventory, payroll, sales tax reporting, income taxes, and financial statements. This class requires a computer, internet access, as well as extensive computer work.

Pre/Corequisite(s): ACC 123 or permission of instructor.

BA 275 - Entrepreneurship

3 Credit(s)
This course provides students with the practical skills and experience in starting and running a business. Through a combination of hands-on activities, lectures and case-studies, students will learn the fundamentals of entrepreneurship and apply them in the real-world. Students will learn the fundamentals of entrepreneurship and apply those in their own business venture.

Prerequisite(s): BA 100

MGT 260 - Human Resource Management

3 Credit(s)
This course examines statutory and common laws governing employment in the United States. Topics covered will include employee status, at-will employment, discrimination laws, job analysis and employee selection processes, performance management, employee appraisal and discipline, compensation and benefits, wage and hour laws, and workplace safety laws. Emphasis is placed on the study of the legal framework impacting human resources practices and policies.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MKT 230 - Principles of Marketing

3 Credit(s)
This course emphasizes the operational and strategic planning aspects of marketing. Customer-driven, value-added strategies, product life cycles, product positioning, logistics, personal selling, and the Marketing Mix (product, price, place, and promotional) are examined. Concepts are applied in a required project.

Prerequisite(s): Satisfactory reading and writing placement of ENG 097.
Pre/Corequisite(s): ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Compressor Mechanic, A.A.S.

Financial aid eligibility pending

Major Code: 351

This program trains students to become Compressor Mechanics in the natural gas industry and other related industries. Students in this program will learn to troubleshoot, repair and maintain natural gas compressors.

1. Practice conventional industrial safety and communication
2. Perform compressor troubleshooting, repair, maintenance and operation
3. Explain natural gas compressor operating principles
4. Apply principles of mechanical, hydraulic, pneumatic and electrical systems to natural gas compressors and related equipment

ed equipment

CIP Code 47.0303

First Year

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

CMEC 101 Basic Engine Operations **Credits / Units:** 3

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15/16 Credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CMEC 102 Intro to Gas Compressor Maintenance **Credits / Units:** 3
Credits / Units: 3

Choose

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CMEC 103 Advanced Gas Compressor Maintenance **Credits / Units:** 3

CMEC 104 Engine Operations and Systems **Credits / Units:** 3

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

CMEC 105 Advanced Compressor Topics **Credits / Units:** 3
CMEC 106 Advanced Engine Topics **Credits / Units:** 3
CMEC 107 Compressor Package Operation & Troubleshooting **Credits / Units:** 3

MEC 235 - Instrumentation II Electrical

3 Credit(s)
Instrumentation II Electrical is an introduction to the field of process control using electrical basic devices for measuring and controlling different kinds of variables in process control. The course shall deal with areas that will explain the role of instrumentation electrically in a closed-loop control and PID functions. Students will work with analog and digital devices and programmable logic controllers (PLCs). This course will cover thermal measurement and operation of RTDs, thermistors, and thermocouples and thermometers, as well as pressure, flow, and level equipment and controls. Discussion on calibration standards, typical calibrating methods, and instrument testing will also be included.

Prerequisite(s): APT 155.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60/61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Computer Information Technology, Cyber Security, A.A.S.

Major Code: 339

This program is designed for those who want to work in the cyber security field of computer information technology.

In addition to General Education Outcomes, students should be able to:

1. Demonstrate competency in one of the following areas realted to fundamental security concepts, including but not limited to operating systems, hardware and software applications.

2. Demonstrate understanding of various applications of secure computing.

3. Apply secure practices in various computing environments.

4. Apply problem-solving and critical thinking skills.

5. Troubleshoot security issues in computer applications.

6. Complete an internship in the field of cyber security.

According to the Bureau of Labor Statistics, U.S. Department of Labor, employment of information security analysts is projected to grow 37 percent from 2012 to 2022, much faster than average for all occupations. Demand for information security analysts is expected to be very high as these analysts will be needed to come up with innovative solutions to prevent hackers from stealing critical information or creating havoc on computer networks. Most information security analysts can work for computer companies, consulting firms, federal or state government agencies, or business and financial companies.

University Transfer Options:

- Completion of this program offers student the option of transferring to the following college to complete a four-year degree:
    - Robert Morris University

Job Titles: Software Developer, Software Designer, Applications Specialist, Network Administrator, Network Engineer

Employment Trends:

- West Virginia projected job market increase 24% by 2024 (Onet, 2018)
- Possible Certifications: COMPTIA N+, COMPTIA LINUX, Microsoft Office Specialist, CISCO CCENT

CIP Code: 111003

First Year

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 275 - Microsoft Server Administration and Virtualization

3 Credit(s)
This course is deigned to introduce students to virtualization concepts with hands-on exercises related to windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by hands-on exercises. It also introduces them to hypervisors, Microsoft Azure, active directory, setting up user groups, rights, printer sharing, and other items related to organizational and security issues.

Pre/Corequisite(s): CIT 142 or Instructors Permission

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal

financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Second Year

Fall Semester (15 Credits)

CIT 106 - Principles of Ethical Hacking

3 Credit(s)
This course is designed to introduce concepts of hacking computers, networks, and web applications from the perspective of a hacker with hands on labs and exercises to truly experience the emerging threats of cybersecurity and their mitigations. Includes the introduction for various cyber security trends and pathways such as network security, application security and policy management.

Prerequisite(s): CIT 142 and CIT 220
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 235 - Introduction to Cloud Computing

3 Credit(s)
This course covers Cloud Computing implementation, security models, and associated challenges that go into the implementation and support of High Performance Computing and Big Data support capabilities on the Cloud. Through hand-on assignments and projects, students will learn how to configure and program IaaS (Infrastructure as a Service) services. They will also learn how to develop Cloud-based software applications on top of various Cloud platforms, how to integrate application-level services built on heterogeneous Cloud platforms, and how to leverage SaaS (Software as a Service) and BPaaS (Business Process as a Service) solutions to build comprehensive end-to-end business solutions on the Cloud.

CIT 245 - Information Security Fundamentals

3 Credit(s)
This course is designed to challenge students to understand hackers' mentality to perform network vulnerability and risk assessments to implement processes to protect an organization's assets against danger, damage, loss, and criminal activity. This course also introduces students to network infrastructure threats, access and account management, cryptography and PKI, and virtualization cloud security concepts.

Prerequisite(s): CIT 142 and CIT 220
Pre/Corequisite(s): CIT 106 or CIT 184

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project

and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations, operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

CIT 219 - Secure Computer User

3 Credit(s)
This course is designed to provide students with necessary knowledge and skills to protect their information assets. This course will help students identify and mitigate various information technology security threats such as computer and network security threats, identity theft, credit card fraud, online banking phishing scams, virus and backdoors, emails hoaxes, social engineering, IoT and Remote working threats.

Prerequisite(s): CIT 123
Corequisite(s): None
Pre/Corequisite(s): CIT 220

CIT 255 - Cybersecurity Network Defense

3 Credit(s)
The course is designed to introduces students to cybersecurity defense strategies emphasizing on network security and network penetration testing. This course will cover basics of network security threat intelligence, information gathering, vulnerability management, infrastructure security and incident response.

Pre/Corequisite(s): CIT 245 or CIT 184.

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Computer Information Technology, Cyber Support, A.A.S.

Major Code: 356

This program provides students with the technical skills required for Microsoft application certification exams and end user support.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

1. Demonstrate competency in one of the following areas related to fundamental security concepts, including but not limited to operating systems, hardware and software applications.

2. Demonstrate competency in various business applications of computing including and not limited to end-user applications.

3. Apply problem-solving and critical thinking skills.

4. Troubleshoot issues in computer applications.

5. Complete an internship in the field of information technology.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Application Developer, Computer Consultant, Information Technology Analyst, Telecommunications Analyst, Help Desk Engineer, Help Desk Specialist

Wage and Employment Trends:

- $29,000 Annual (Onet, 2018)
- Faster than Average Projected Growth (9% 2014-2024) (Onet, 2018)
- Certification Options: Microsoft Office Specialist, COMPTIA A+, COMPTIA LINUX

CIP Code: 110103

First Year

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15-16 Credits)

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified

Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

CIT 112 - Access

3 Credit(s)
This course comprehensively covers all of Microsoft Access. Students will create, use, manage, and maintain databases. This course will also prepare students for the Microsoft Office Specialist ACCESS (730) test.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 275 - Microsoft Server Administration and Virtualization

3 Credit(s)
This course is deigned to introduce students to virtualization concepts with hands-on exercises related to windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by hands-on exercises. It also introduces them to hypervisors, Microsoft Azure, active directory, setting up user groups, rights, printer sharing, and other items related to organizational and security issues.

Pre/Corequisite(s): CIT 142 or Instructors Permission
Math Core Requirement 3-4 Credits*

Second Year

Fall Semester (15 Credits)

CIT 165 - PowerPoint with AI

3 Credit(s)
This course prepares students to design and deliver polished, visually effective business and technology focused presentations using Microsoft PowerPoint, with an emphasis on integrating AI-driven tools to support the presentations. Students will develop the skills needed to create, format, and enhance presentation materials including generating and refining AI-assisted content for small business environments. Topics covered include creating, formatting, and designing PowerPoint presentations manually and with AI assistance.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

CIT 202 - Computer Support - Helpdesk/Applications

3 Credit(s)
This course is designed to introduce students to real world help desk scenarios and help them understand the operations

of a help desk along with roles and responsibilities of a helpdesk personnel by conducting mock drill sessions in a practical helpdesk setting which will give experience to the students and prepare them to succeed as help desk professionals, developing skills required to provide effective customer support.This course is designed for information workers who are using or will use Office 365. This course will provide students with the knowledge and skills to efficiently use Office 365 on a day-to-day basis. Students will learn how to use Outlook Online, Skype for Business, OneDrive for Business, SharePoint Online, and OneNote. At the end of this course students will be able to effectively navigate and make use of all the features of Office 365.

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

CIT 219 - Secure Computer User

3 Credit(s)
This course is designed to provide students with necessary knowledge and skills to protect their information assets. This course will help students identify and mitigate various information technology security threats such as computer and network security threats, identity theft, credit card fraud, online banking phishing scams, virus and backdoors, emails hoaxes, social engineering, IoT and Remote working threats.

Prerequisite(s): CIT 123
Corequisite(s): None
Pre/Corequisite(s): CIT 220

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

CIT Elective excluding CIT 117 **Credits / Units:** 3

Total Credits (60-61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

*General Education Core Requirements

Associate in Applied Science General Education Requirements

Computer Information Technology, Software Engineering, A.A.S.

Major Code: 179

This program prepares students with practical skills and knowledge for entry-level positions within the software engineering profession. Software engineering relates to the concept, design, implementation, deployment and maintenance of software. The program seeks to provide the theoretical fundamentals of software development coupled with an understanding and application of practical aspects and competencies required by industry. The program is designed to support innovation through the application of software engineering principles to solve business problems.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Develop a broad foundation of various programming languages and platforms.
- Provide students with an understanding of software engineering principles.
- Instruct students in conceptualization, proposal development, database design, interface design, system architecture, documentation, presentation, and delivery.
- Develop, within students, an appreciation for the importance of excellent business and communication skills in a typical software engineering environment.
- Assist graduates in obtaining entry-level positions in the field of software engineering.

Graduates may work in software design, testing, maintenance and development, database administration, and web development. Graduates may also qualify for entry-level management positions in a technical capacity.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following college to complete a four-year degree:
    - Robert Morris University

Job Titles: Computer Consultant, Information Technology Analyst, Software Architect, Software Developer, Software Engineer, Technical Consultant.

Wage and Employment Trends:

- $41,000-$64,000 Annual (Onet, 2018)
- Much Faster than Average Projected Job Growth (12%) (Onet, 2018)
- Certification Option: Microsoft Office Specialist

CIP Code: 110103

First Year

Fall Semester (15 Credits)

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 187 - HTML/CSS

3 Credit(s)
This course introduces the student to hypertext markup language (HTML) and the more current XHTML standards to create and modify Web pages. Uploading Web pages to the Internet, linking to other Web sites, graphics, tables, and forms are included in Web page designs. Emphasis is placed on good Web page design that is compatible with different browsers, screen resolutions, and user configurations.

CIT 232 - Introduction to Programming Logic

3 Credit(s)
This course introduces students to a high level programming language and the logic and control structures that are the foundations of computer programming. Variables, assignment, subroutines, data types and basic object oriented programming will be explored and used to develop simple applications.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 176 - Visual Basic Programming

3 Credit(s)
This course acquaints students with the design, development, testing, and documentation of Visual Basic programs. This course introduces students to the correct ways to design and write programs using Visual Basic. The goal of this course is to provide a rigorous and comprehensive course in computer programming for students with some programming experience.

Prerequisite(s): CIT 232 or permission of the instructor.
Pre/Corequisite(s): CIT 185 or permission of the instructor.

CIT 185 - Database Design and SQL

3 Credit(s)
This course covers features of a Database Management System (DBMS) and will focus on design principles, relationships, normalization, and SQL (Structured Query Language) queries for a moderately complex small-scale business application. SQL is utilized to create, modify, and query multi-table database(s) and produce output.

Prerequisite(s): N/A
Corequisite(s): N/A
Pre/Corequisite(s): N/A

CIT 215 - JavaScript

3 Credit(s)
This course will enable students to develop interactive websites using JavaScript, with an emphasis upon running processes on client workstations. Various assignments enhance the student's ability in JavaScript, including interaction with the browser, regular expressions and form validation. Students will also compare various client and server side scripting languages.

Prerequisite(s): CIT 187 or permission of instructor.

CIT 272 - Object Oriented Programming/Data Structures

3 Credit(s)
This course builds on the skills obtained in the C++ and Java courses in an object oriented programming environment. Advanced pointers, data structures, file I/O, and other techniques are used to develop sophisticated application programs in Java.

Prerequisite(s): CIT 232 or permission of the instructor.
Math Core Requirement 3 Credits ##

Second Year

Fall Semester (15 Credits)

CIT 218 - Microcontrollers and IoT

3 Credit(s)
This course will enable students to develop projects using microcontrollers and small board computing platforms, such as Arduino, Raspberry Pi, and ESP32. This will include DC circuit basics, analog and digital sensors and output devices, and basic robotics. Students will also develop skills needed to create Internet of Things (IoT) devices and services that involve these projects.

Prerequisite(s): CIT 272 or CIT 215
Corequisite(s): None
Pre/Corequisite(s): None

CIT 237 - Advanced Database Programming

3 Credit(s)
This course covers features of a network based DBMS and will focus on design principles, relationships, normalization, and SQL (Structured Query Language) queries for a moderately complex small scale business application. SQL is utilized to create, modify, and query multi-table database(s) and produce output. This course will also introduce the student to data control, data environment, and other objects related to database access and updating. It will focus on program statements and techniques to manipulate database information. It will include interactive processing and batch in an integrated business application with data validation. Emphasis will be placed on Visual BASIC, C#, or Java programming that can be utilized without limitation to a particular database management system. The course will utilize team and individual programming projects.

Prerequisite(s): CIT 176 and CIT 185 or permission of instructor.

CIT 250 - IT Analysis, Design, and Career Prep

3 Credit(s)
This course covers a wide range of information technology topics. The course begins with topics involving the project and system development life cycles, project management. Students will analyze system and data requirements, construct a design via system diagrams and other tools, develop detailed design documentation, and plan the implementation. The students create a proposal, design document, or helpdesk document (based on Major). The students will create a resume, join an online professional social network, create a cover letter, references and build a 'pre-employment' packet that could be used for their internship.

Prerequisite(s): CIT 176, or CIT 245, or CIT 275

CIT 256 - Collaborative Software Development

3 Credit(s)
This course prepares students to develop software projects in a collaborative environment. While the course focuses primarily on the use of version control systems, it also covers the challenges of collaboration and how to mitigate them, the use of good communication skills and channels, and how to use a Kanban board to manage and assign project tasks.

Prerequisite(s): CIT 272 or CIT 176

Corequisite(s): N/A
Pre/Corequisite(s): N/A

CIT Elective*

Spring Semester (15 Credits)

CIT 217 - Game Development Fundamentals

3 Credit(s)
This course builds on the skills from multiple earlier classes, including Object Oriented Programming, Data Structures and Collaborative Software Development, to develop fundamental skills with game development. The course will cover sprites and animation, collision detection and resolution, drawing maps, state machines, basic AI and the use of game development frameworks and engines.

Prerequisite(s): CIT 256
Corequisite(s): None
Pre/Corequisite(s): None

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.

CIT 291 - CIT Internship and Certification

3 Credit(s)
This course is designed as an internship and certification course and will vary based on the CIT degree program. The students will be required to perform at least 100 hours of work with an organization utilizing the skills appropriate to the CIT degree program in which they are enrolled. The student will also be required to complete a certification test appropriate to their CIT degree program. Each student will receive an evaluation from their site supervisor. This course is designed as a capstone course.

Pre/Corequisite(s): CIT 250

Choose

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the

areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Choose

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60)

* Choose from any other CIT course or MGT 250, MGT 253

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Criminal Justice, A.A.S.

Major Code: 234

The Criminal Justice program is designed for students interested in pursuing a career in the legal professions such as law enforcement, corrections and private investigation. Students will learn how these professions integrate into a system of criminal justice. This program is offered in two formats allowing students to choose from the traditional on-campus experience or a completely online experience.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Analyze the impact of substantive and procedural case law on law enforcement, juvenile justice, and the correctional system.
- Employ information access and literacy skills in the research of Criminal Justice topics.
- Describe the internal operations of agencies on the local, state, and federal levels that comprise our nation's criminal justice system.

- Identify basic law enforcement investigative techniques, crime scene preservation and analysis techniques.
- Explain the development and implementation of Homeland Security and how this agency identifies and counteracts international threats and terrorism.
- Examine the current events and issues that law enforcement and the criminal justice system must deal with in today's society.
- Describe the rights of the accused from arrest to post conviction appeals, including how relevant agencies determine a balance between individual rights and social order.

Currently many graduates of the Criminal Justice program are employed in the West Virginia State Police and Ohio State Highway Patrol agencies as well as in various law enforcement agencies in the Upper Ohio Valley. Many graduates are working in the correctional field as correctional officers, adult and juvenile case workers and as treatment specialists both in the public and private domain.

Future employment opportunities, according to experts in the field of criminal justice, will continue to grow at the federal, state and local levels. New positions include computer analysts specializing in internet crimes, forensic technicians and criminal profilers.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following colleges to complete a four-year degree in Crinimal Justice:

  Fairmont State University

  Franciscan University of Steubenville

  Ohio University

  Robert Morris University

  Salem University

  West Liberty University

  WVU - Potomac State College

CIP Code: 430107

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CRJ 104 - Introduction to Criminal Justice Systems

3 Credit(s)
This course is a detailed examination of the criminal justice system of the United States. The roles of the police, courts and correctional systems are presented. An analysis of the agencies involved in the administration of criminal justice is also included.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Restricted Elective **3 Credit(s)** ##

Spring Semester (15 Credits)

CRJ 245 - Introduction to Juvenile Justice System

3 Credit(s)
This course examines the cause, conduct and extent of juvenile delinquency and the current methods of prevention, treatment and correction.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
Or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s)** ##

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
or

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

CRJ 201 - Introduction to Corrections

3 Credit(s)
This course is an in-depth examination of the role corrections plays within the criminal justice system. Prison types, the role of classification, care and treatment issues and constitutional requirements are examined. Additionally, the role of probation and parole and how sentencing alternatives impact on the system is addressed.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CRJ 220 - Criminal Law

3 Credit(s)
This course is an introduction to the law of crimes; circumstantial, direct and real evidence; the hearsay rule; the elements of proof; classification of statutory crimes; rights of the convicted; court procedure and techniques of testifying.

Prerequisite(s): CRJ 104

CRJ 225 - Terrorism and Homeland Security

3 Credit(s)
This course will focus upon the social, political, economic and philosophical reasons for the development and spread of terrorism throughout the world, and examines potential dangers inherent in these practices and possible counter measures to combat terrorism. Special attention will be given to domestic and international acts of terror that affect American citizens, interests and policies. Students will also gain an understanding of the National Strategy which focuses on homeland security, such as intelligence & warning systems, border and transportation security, domestic terrorism, and emergency preparedness and response to prevent terrorist attacks, reduce vulnerability, minimize damage, and provide for recovery from terrorist attacks.

Prerequisite(s): CRJ 104.

CRJ 276 - Criminology

3 Credit(s)
This course is a survey of major theories of criminology, the criminal justice system, and of major correctional treatment methods.

Prerequisite(s): CRJ 104 and SOC 125

Spring Semester (15/16 Credits)

CRJ 221 - Criminal Procedure

3 Credit(s)
This course is a continuation of CRJ 220 - Criminal Law and will provide an overview of American Criminal Law, focusing on Laws of Procedural Due Process on federal and state levels, and various facets of the criminal procedure process.

Prerequisite(s): CRJ 104 and CRJ 220.

CRJ 235 - Field Service

3 Credit(s)
This course includes a 120 contact hour onsite field experience (approximately eight hours per week for 15 weeks). Through an appropriate agency for individual students' fields of interest, students will perform the actual duties assigned. Students will also conduct independent study in the area of their choice. Hours are arranged with the appropriate supervisor.

Prerequisite(s): CRJ 104, CRJ 201, and CRJ 245.

CRJ 251 - Ethics in Criminal Justice

3 Credit(s)
This course explores the ethical issues, dilemmas, and decision-making processes that arise within the criminal justice system. Students will examine ethical theories and principles as they apply to law enforcement, the courts, corrections, and related fields. Topics include the use of discretion, professional conduct, corruption, accountability, due process, human rights, and the balance between public safety and individual liberties.

Prerequisite(s): CRJ 104
Corequisite(s): None
Pre/Corequisite(s): None

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 116 - Mathematics Appreciation

3 Credit(s)
This course examines Mathematics in a wide range of settings. One aspect of the course considers a cultural and historic overview. Another aspect considers the breadth of modern Mathematics. Emphasis is placed on both utility, computation, and applications and also on aesthetic appreciation, including puzzles and games. Emphasis is placed on learning to see how ideas are expressed mathematically.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG ENG 115
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (61-62)

Choose from: CRJ 110, CRJ 115, CRJ 205, CRJ 209, CRJ 246, CRJ 230

IMPORTANT TRANSFER INFORMATION: For students who plan on transferring, MATH 108 or MATH 210 are recommended. Contact your advisor for specific requirements.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Culinary Arts, A.A.S.

Major Code: 322

The Culinary Arts Program, accredited by the American Culinary Federation, is designed to meet the demands for well-trained food service personnel with an emphasis on development of basic techniques of commercial food preparation. Exposure to many facets of food preparation as well as nutrition, sanitation, menu planning, and personnel management used by the professional culinarian are included in the program. Hands-on experience is a high priority in the laboratory classes, building a solid foundation of basic cooking skills. Upon completion of the program students can obtain employment as cook, baker, sous chef, kitchen manager or supervisor, lead cook in restaurants, hotels, catering operations and other food service organizations. The program provides students with the opportunity to meet the requirements for certification by the American Culinary Federation.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Prepare all types of meals using safe, sanitary and nutritional skills

- Use correct knife skills, kitchen equipment and kitchen related appliances
- Demonstrate customer service techniques
- Demonstrate skills in financial planning, menu planning
- Explain key laws and regulations for food service establishments
- Prepare for the entry level of certification in the American Culinary Federation

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Uniforms are required for CART 131, CART 145, CART 151, CART 159, CART 231, CART 240 and CART 241.

Job Titles: Back Line Cook, Banquet Cook, Breakfast Cook, Cook, Fry Cook, Grill Cook, Line Cook, Pastry Baker, Prep Cook

Wage and Employment Trends:

- $23,900 Average Annual Salary (2020) in WV
- $11.49 average per hour in WV
- 1180 Projected job openings between in WV (2018-2028)
- 237,200 Projected job openings in the US (2019-2029)

Wage and employment trends based on Department of Labor and ONET statistics.

CIP Code: 120503

First Year

Fall Semester (17 Credits)

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 124 - General Nutrition

3 Credit(s)
This is an introductory course in nutrition. Its topics include definition of the nutrients and will address nutrient requirements and the use of RDA charts. The course includes the sources of nutrients and the effect of nutrient deficiencies. Digestion, absorption and weight control are a part of the course.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 131 - Bakeshop

3 Credit(s)
This course is designed for the beginner baker. Topics include baking principles, ingredient function and handling, weights and measures, terminology and formula procedures. Also included are the use and care of bakeshop tools and equipment. Production includes yeast products, cakes, cookies, pies and assorted desserts. Students must register for a lecture and laboratory section. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 145 - Elements of Commercial Food Preparation and Service

3 Credit(s)
This course is basic cooking skills and front of the house dining services. The course will cover the cooking of fundamental menu items to include breakfast, lunch and dinner items. Both à la carte and buffet preparation will be included in the cooking methods in this course. Included in the course are methods of table service, preparation of the dining room for service, personal hygiene, and sanitation and customer relations. Students actively perform standard American Service on a rotating basis. The student will be exposed to cooking and service to customers each week. The student must have a server's uniform and a chef's uniform for this class. This course is to be offered the second nine week period in the first semester and is a continuation of CART 159 - Basic Food Science.

Pre/Corequisite(s): CART 121, CART 159 or permission of instructor.

CART 159 - Basic Food Science

3 Credit(s)
This course is an introduction to basic cooking skills, knife skills and the chemistry of foods. Content includes sandwiches, salad dressings, hors d'oeuvres, stocks, soups, vegetables, egg cookery and beverages. This course also covers basic food decorations and garnishes. Emphasis is on identification, selection, use and handling of ingredients. The course covers the cooking skills and methods used for the successful preparation of fundamental menu items - breakfast, lunch, and dinner. Emphasis is on preparation and handling. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Spring Semester (16 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also

included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 151 - Meat, Poultry and Seafood Preparation

3 Credit(s)
This course covers government standards for inspection and grading of meats, poultry and seafood. Emphasis is on the identification of meats - both primal and retail - and on the selection of the proper cooking method for varying cuts/types of meat, poultry and seafood. Production will include the preparation of menu items containing meat, poultry and seafood. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121 and CART 159 or permission of instructor.

CART 175 - Advanced Food Science

3 Credit(s)
This course is an expansion of CART 159. The emphasis is on the preparation and presentation of the classical techniques used in the culinary kitchen. The chemistry of foods and their origins will be further explored in this course. This course will cover such areas as vegetable reactions to different cooking techniques and mediums, the classical production of sauces and the uses of herbs and spices. The production of fresh made pastas, corn products, rice and other grains will be explored in this course. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 159.

CART 251 - Culinary Internship

4 Credit(s)
This course is a field experience with practical and written examinations for certification by the American Culinary Federation. The field experience will require the completion of 300 hours of supervised internship experience that is completed in an approved food service facility. Work evaluations are completed by the supervisor and an end-of-the-semester evaluation is completed jointly by the supervisors and faculty member during an on-site visit. Students will attend scheduled seminars and submit written reports, work logs of their experience, and recipe reports as part of the portfolio.

Prerequisite(s): CART 145.
Pre/Corequisite(s): CART 151 and CART 175.

- MATH - Math Core Requirement **3 Credit(s)**

Second Year

Fall Semester (15 Credits)

CART 223 - Personnel Supervision for the Hospitality Industry

3 Credit(s)
This course is a study of the supervision of personnel in the hospitality industry. Emphasis is on the role of the first-line supervisor. Topics include dealing with the time demands, people, pace, attitudes, and special problems inherent in the hospitality industry. This is a course that satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101

CART 235 - American Cuisines

3 Credit(s)
This course is designed to research the varied cuisines of the American people. This course will cover all the areas from the Pacific North West to the Deep South and the North Atlantic coast. This course is based around the premise that American cuisine, which has won numerous awards, is worthy of study. Emphasis will be on the similarities in production and service systems. Application of skills to develop, organize and build a portfolio of recipe strategies and production systems. Students are required to have a complete chef's uniform for this class. This course is only offered the third semester a student is in the program.

Prerequisite(s): CART 175

CART 240 - Garde Manger

3 Credit(s)
Students will be introduced to modern and traditional techniques in preparation and presentation of cold food items for the buffet and decorative culinary showpieces. Students will prepare cold entrees, patés and hors d'oeurves, cold sauces and charcuterie and ice carvings. Students plan, organize and set up buffets. This course also concentrates on the practical techniques of showpieces/centerpieces. Students are required to have complete chef's uniform for this class. Students must register for a lecture and laboratory section.

Prerequisite(s): CART 121, CART 131, CART 145, CART 159 and CART 175.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- SS - SS Core Requirement **3 Credit(s)**

Spring Semester (13 Credits)

CART 231 - Pastry Preparation

3 Credit(s)
This course is a continuation of CART 131. It covers advanced baking and classic pastry preparations. Topics addressed include ingredient handling, terminology, formula procedures and a brief history of classic pastry preparations. . Laboratory production includes laminated doughs, plated desserts, chocolate and confections, meringues as well as specialty cakes and desserts. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 131 and CART 121.

CART 241 - Classical Cuisines

3 Credit(s)
This course is a study of classical cuisines - to include French, German, Asian, Italian, and Spanish. The course is designed to include a history and development of each cuisine. Production will include the preparation and presentation of classical menu items representing each cuisine. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 235.

CART 245 - Menu, Purchasing and Cost Control

3 Credit(s)
This course is designed to present menu planning as a guide to managing and cost controls. The emphasis is on the key role menu planning, pricing structures and cost controls play in relation to the entire operation of a food service establishment. Course includes planning various menus and proper pricing structures with regard to food, labor, utility and beverage costs. Students will be expected to understand the overall concept of purchasing and receiving practices in quality food service operations and to be able to apply knowledge of quality standards and regulations governing food products to purchasing function. The student will receive and store food and non-food items properly using standard storage practices. This course is designed to teach the management of the monetary dimension of the hospitality industry.

Prerequisite(s): Math Core requirement

CART 275 - Senior Seminar

1 Credit(s)
This course is designed to be the final course the culinarian takes before graduation and certification by the American Culinary Federation. The student will review important concepts through participation in class discussions, demonstrate mastery of all program outcomes through written and practical exams, and will submit a portfolio as part of this course. Students are required to have a complete chef's uniform for this class. The student can receive ACF Certification upon completion of this course and successful graduation.

Prerequisite(s): CART 251;
Pre/Corequisite(s): CART 241.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science degree listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Early Childhood: Care and Education (Paraprofessional Educator), A.A.S.

Major Code: 329

This program is designed for those who want to work with children from birth-adolescence. Graduates can be expected to fill paraprofessional or professional positions in private or public agencies that provide early care and/or education services. This program meets the requirements of the WV Department of Education's paraprofessional educator's certificate (available at http://wvde.state.wv.us/policies); therefore individuals with this degree should also be eligible for positions as teacher's aides in the public school system. It also fulfills the majority of requirements for Early Childhood Assistant Teachers in West Virginia and for employment in child care centers and independent pre-school programs.

Students who eventually plan to complete a bachelor's degree in a related field can use this degree as a foundation for transfer, but it is recommended that students who plan to complete a bachelor's degree before beginning employment consider completing additional requirements for an Associate in Arts 2+2 or transfer degree in Elementary Education, Secondary Education, or Early Childhood Education to maximize transferability of courses.

Students who eventually plan to complete a bachelor's degree in a related field can use this degree as a foundation for transfer, but it is recommended that students who plan to complete a bachelor's degree before beginning employment consider completing additional requirements for an Associate in Arts 2+2 or transfer degree in Elementary Education, Secondary Education, or Early Childhood Education to maximize transferability of courses.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Explain basic concepts, theories, and strategies used in early childhood care and education.
- Design and implement developmentally appropriate activities for children of different ages and ability levels in a childcare/educational setting
- Describe similarities and differences in the developmental milestones of infant, toddler, pre-school, and school - age children.
- Demonstrate professionalism and apply discipline-based ethics in childcare/educational settings by successfully completing an internship.
- Explain cultural, family, and individual influences on a child's development and service delivery.

Employment outlook is currently above average, but is dependent upon changing local, regional, and national needs. Salaries tend to be low-moderate for graduates, depending on location, type of facility, and the prospective employee's level of education and work experience. This program is designed to prepare individuals for entry-level positions in day care, preschools, and public school systems, or to prepare them for transfer to baccalaureate programs in early childhood education

NOTE: Two specialized programs which provide credit for credentials completed outside the college setting are available for students who possess either a U.S. Department of Labor Apprenticeship Certificate (ACDS) and/or a Child Development Associate (CDA) credential. (See Occupational Development, A.A.S. and Technical Studies, A.A.S. in the Center for Economic and Workforce Development section.) Contact an advisor for additional information.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following university to complete a four-year degree:
    - West Virginia University - BS in Child Development and Family Studies, Child Development Emphasis

Job Titles: Assistant preschool teacher, caregiver, childcare provider, teacher's aide (US Dept of Labor, 2017)

Wage and Employment Trends:

- $18,000 to $25,000 annually
- Average Projected Job Growth (2% job growth over the next seven years) (US Dept of Labor, 2017)

CIP Code: 131210

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for

providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15/16 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.

- MATH - Restricted Mathematics Core **3(4) Credit(s)** *

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16/17 Credits)

ECCE 205 - Early Childhood Seminar

1 Credit(s)
This course is a combined lecture and seminar which prepares students in the Early Childhood: Care & Education AAS degree for their internship or field experience the following semester. Students will review important concepts, skills, and abilities necessary for the student to be successful in their internship/field experience and cover topics related to the

requirements of the field experience. Students may be required to complete a criminal background check and/or drug screening by the sponsoring agency to determine their eligibility for the internship/field experience. Topics covered will include: Codes of ethics for paraprofessionals in early childhood care and education settings, including legal and practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the internship/field placement.

Prerequisite(s): ECCE 100
Pre/Corequisite(s): ECCE 220 or ECCE 212

ECCE 212 - Child, Family, and Community

3 Credit(s)
This course examines the relationships between the young child and other members of the family unit, and the relationship between the family and the early childhood program. The focus is on the child during infancy, toddler, and preschool years. Studies include the diversity of family lifestyle and cultures.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
SCI - Science Core Requirement 3(4) Credit(s) **Credits / Units:** 3/4
Restricted Electives 3 Credit(s) ##

Spring Semester (15 Credits)

ECCE 208 - ECCE Field Experience

3 Credit(s)
This course is designed to meet program outcomes and standards required for preparation of early childhood paraprofessionals as identified by the National Association for the Education of Young Children (NAEYC). It involves the application of coursework, theories, and practice. It is both a field experience and a seminar which requires a total of 200 contact hours at an appropriate child care agency, or educational institution and in a classroom seminar. It is

considered the "capstone" course or experience for the early childhood students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical early childhood courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): ECCE 100, ECCE 212, HS 147 , HS 205 , with a "C" or better, AND permission of the program director. Students may also be required to meet other criteria for entry into the field experience that may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.
Pre/Corequisite(s): MATH 108 or MATH 204 or MATH 205 or MATH 210

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Electiive - can be any 3 credit college-level course **3 Credit(s)**

Total Credits (61-63)

Recommended choice for transferring students.

Choose one course from the following: ART 150, MUS 105, HIST 110 or HIST 111, MGT 250 or MGT 253, or SS 207.

* Restricted Math Core must be chosen from MATH 108#, MATH 210#, MATH 204 or MATH 205.

*** BIO 110, BIO 112, or BIO 113 are recommended.

** Before registering for the field experience, students must apply to and be accepted by an approved educational institution, or child care agency. There is also a class requirement of 2 hours every other week.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Electro-Mechanical Technology, A.A.S.

Major Code: 266

This program is designed to prepare individuals to be technicians in the exciting fields of electrical and mechanical maintenance, installation, trouble shooting and to work alongside engineers and technologists. The highly technological, integrated, and automated manufacturing facilities of today's modern workplace demand technicians with advanced training. Employers are looking for technicians who have strong interdisciplinary training and skillsets.

All of our technical courses have an extensive hands-on lab component as students learn skills in electrical systems, motor control, hydraulics and pneumatics, programmable logic controllers, instrumentation, workplace safety, problem solving and teamwork. These are the technical skills that employers are looking for in a technician.

As your understanding of the fundamentals grows, you will progress into more advanced courses such as: programmable controllers, pump & piping, instrumentation, and problem solving. As you advance through this program you will have the opportunity to choose an "Specialty/Emphasis On" program. This allows you to acquire more advanced training and skills in career option paths such as: Automation, Instrumentation, or Electrical Technologies. Or choose a Certificate of Applied Science in Industrial Maintenance, CAS or Energy Tech, CAS. Each of these career pathways have a set of core fundamental classes and then you will move into the chosen field of expertise. (Automation, Instrumentation or Electrical Technologies AAS.)

Upon completion of this program, graduates will be able to:

- Describe and recognize the various mechanical and electrical components used in modern industrial and manufacturing processes.

- Apply scientific and mathematical principles dealing with electrical, fluid power, and mechanical applications.
- Demonstrate hands-on troubleshooting skills on mechanical and electrical components used in modern industry and manufacturing processes.
- Demonstrate critical thinking skills for designing, installing, and maintaining mechanical and electrical systems.
- Communicate effectively using electrical and mechanical prints and other documentation.
- Develop professional skills through a work-based learning experience or simulation.

Job opportunities for technicians exist across a broad spectrum of industries. The petroleum, chemical, power generating, green energy, manufacturing, and fabricating industries are all looking for qualified employees.

CIP CODE: 15.0403

First Year

Fall Semester (14 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and

working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101

Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (16 Credits)

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

MEC 140 - Programmable Controllers I

3 Credit(s)
The course introduces the basic theory, operation and programming of programmable logic controllers. Programming examples, set-up examples and troubleshooting are demonstrated. Also included is PLC timing, counting, and arithmetic and logic sequences.

Prerequisite(s): APT 155
Pre/Corequisite(s): APT 103 and APT 104 with a minimum grade of "C" OR MSHA 80 hour Apprentice Miner Class.

PHYS 115 - Applied Physics

4 Credit(s)
This course is a study of the basic laws of physics in mechanics and electricity. Emphasis is placed upon the solution of problems relating to statics, dynamics, fluids, circuitry and electrical instruments. Problems are drawn from biology, medicine and engineering. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, satisfactory math placement or MATH 101.
Pre/Corequisite(s): ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The

primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- Restricted Core Elective* 3 Credit(s)

Spring Semester (14 Credits)

MEC 230 - Fluid Power Systems

3 Credit(s)
The course introduces the student to more complex fluid power circuits including hydraulic and pneumatic systems. Students design, analyze and troubleshoot complex circuits using PLC's, relays, solenoids, controlling fluid systems while using schematic diagrams.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C and APT 150.
Pre/Corequisite(s): MATH 113.

MEC 235 - Instrumentation II Electrical

3 Credit(s)
Instrumentation II Electrical is an introduction to the field of process control using electrical basic devices for measuring and controlling different kinds of variables in process control. The course shall deal with areas that will explain the role of instrumentation electrically in a closed-loop control and PID functions. Students will work with analog and digital devices and programmable logic controllers (PLCs). This course will cover thermal measurement and operation of RTDs, thermistors, and thermocouples and thermometers, as well as pressure, flow, and level equipment and controls. Discussion on calibration standards, typical calibrating methods, and instrument testing will also be included.

Prerequisite(s): APT 155.

MEC 240 - Programmable Controllers II

3 Credit(s)
The course is a continuation of the field of industrial controls. Students will learn the principles of control systems and their application to production systems to achieve automation. Systems included in the course are stepper motors, programmable logic controllers, microprocessors, computers and feedback systems. Emphasis is placed on programmable logic controllers and the local area networks.

Prerequisite(s): MEC 140.

MEC 251 - Problem Solving & Teamwork Seminar

2 Credit(s)
The course is a capstone experience for the Advanced Manufacturing and Instrumentation Process Technology AAS programs. It is designed to reinforce and apply the knowledge and skills learned in communication, mathematics and technical courses and foster teamwork and problem solving skills. The course covers critical thinking skills, collection and analysis of data, quality control overview, teamwork and problem solving and decision making techniques and is intended to be an application of skills learned throughout the programs. Students who are able to secure an internship will complete the course objectives in a work environment instead of the classroom. Requires program director's approval.

- Restricted Core Elective** 3 Credit(s)

Total Credit (60)

*Choose from MEC 105 or APT 201 .

**Choose from APT 112 , APT 230 , or APT 240 .

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Energy Technology, A.A.S.

Major Code: 265

The Energy Technology program is designed to prepare students for employment in the natural gas drilling, gathering and field operations industry including Marcellus and Utica Shales and to give students a basic understanding of renewable energy technologies. The program provides a strong foundation in oil and gas exploration, production, including development in the Appalachian Basin. Students also learn about alternative energy technologies and their applications including geothermal, solar and wind. Laboratory classes include a strong emphasis on hands-on experiences. Safe work practices are emphasized and several industry certifications are embedded within the curriculum.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Follow conventional industrial safety and communication practices
- Perform procedures and tasks commonly used in exploration for and production of oil and gas in the Appalachian Basin
- Explain considerations that go into natural gas processing
- Use various instruments and equipment to measure fluids, temperature, flows, and pressures
- Apply principles of hydraulic, pneumatic, and electrical systems to equipment in the energy industry
- Explain alternative energy technologies and applications

The program qualifies graduates for employment in such positions as field technicians, pumpers, drilling technicians, measurement technicians, compressor operations, and many others. As the energy transition continues, an understanding of alternative energy system operations will become increasingly important.

Job Titles: Board Operator, Gauger, Hydrotreater Operator, Outside Operator, Pumper, Unit Operator

Wage and Employment Trends:

- Median Wages (2016) $27.15 hourly, $56,470 Annual
- Employment (2016): 15,000 Employees
- Projected growth (2016-2026): Much faster than average (15% or higher)
- Potential Industry Credentials Earned: SafeLands USA, OSHA 30 hour General Industry completion card, CPR/First Aid, Compressor Basic Training, Well Control Awareness Training, FEMA Introduction to Hazardous Materials Training

CIP Code: 150903

First Year

Fall Semester (15 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos;

proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

NRG 101 - Energy Transition Technology & Applications

1 Credit(s)
This course will introduce students to technologies used in the worldwide effort to transition to less reliance on fossil fuels. Topics covered include methods used to generate electricity, power vehicles and technologies for Carbon Capture, Utilization and Storage (CCUS).

PTRM 104 - Production Technology with Hands-On Lab

3 Credit(s)
This course trains the student in tasks, methods, and procedures commonly used in the production of oil and gas in the Appalachian Basin. Topics include two, three, and four phase flow, use and maintenance of production surface equipment, artificial lift, gauging tanks, thieving tanks, preparing oil to be run, gas dehydration, and gas measurement.

Spring Semester (15/16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 150 - Drilling/Completion Operations

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in drilling and completing oil and gas wells including in the Appalachian Basin. Students will learn about drilling rig components and operations as well as completion techniques. Emphasis is placed upon safe operation of the systems. Hands-on training provides experience in the proper and safe use of equipment used in the drilling operation.

Second Year

Fall Semester (15/16 Credits)

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PTRM 206 - Applied Chemistry for Petroleum with Hands-on Lab

4 Credit(s)
This course presents basic concepts of chemistry and applies them to upstream oil and gas operations. Molecular structure, gas laws, acids and bases, red-ox reactions, and basic organic chemistry are all included in the course. A key component is chemistry as it relates to personal and environmental safety and health. Students learn the critical role that chemistry plays in all aspects of the production, drilling and services industries.

Prerequisite(s): MATH 113

PTRM 208 - Artificial Lift with Hands-on Lab

3 Credit(s)
This course is designed to familiarize students with various types of functions of artificial list equipment. Plunger lift, sucker rod pumping and gas lift will be emphasized. Also included will be electric submersible pumps, progressing cavity pumps, velocity strings and hydraulic lifts.

Prerequisite(s): Satisfactory math placement or MATH 101, and satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MEC 115 - Instrumentation I: Mechanical

3 Credit(s)
An introduction to the field of mechanical instrumentation covering process variables and instruments used to sense, measure, transmit, and control pressure, temperature, flow, and level variables. The course introduces control loops and elements found in control loops such as transmitters, controllers, regulators and final control elements. Instrumentation drawings and diagrams are reviewed, and basic troubleshooting techniques for instrumentation will be presented. Students will learn fundamentals of instrument calibration.

Pre/Corequisite(s): APT 103 and APT 104 and APT 110 and APT 155 and one of the following math coures: MATH 101 or MATH 108 or MATH 109 or MATH 110 or MATH 113 or MATH 279

or

PTRM 217 - Petroleum Geology of Appalachia

2 Credit(s)
This course introduces the student to the geological theory and science of the Appalachian Basin which not only is the birthplace of the world's commercial petroleum industry but possibly the most significant source of natural gas and oil

in the US for the 21st century. Basic geology concepts are presented including stratigraphy, petroleum formation and reservoirs, and characteristics of various geological structures.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

PTRM 210 - Introduction to Midstream Gas Operations

3 Credit(s)
This course introduces the student to midstream gas operations including handling, processing, transportation, and storage of gas after it leaves the well. The course includes the basics of gathering system design, gas conditioning, gas processing concepts, transmission, and storage.

PTRM 211 - Well Control with Hands-on Lab

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in well control for drilling, workover, and completion operations. The course covers the behavior of various types of drilling fluid and focuses on gas kicks and application of the general gas laws to well control. Included in this course is a lab using an IADC-approved computerized drilling simulator.

Prerequisite(s): PTRM 109 and MATH 113

PTRM 213 - Gas Measurement with Hands-on Lab

2 Credit(s)
This course trains the student in use of orifice measurement to meter gas with applications for field production and operations that are further downstream. Students learn about orifice measurement hardware and techniques for installation, maintenance and troubleshooting. Measurement charts and digital recorders, along with other type of measuring devices, are also presented.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097, and satisfactory math placement test scores orMATH 101 or MATH 108 or MATH 113 , or MATH 279 or MATH 280 or MATH 281 ; and APT 103 and APT 104 with a minimum grade of a C.

PTRM 235 - Petroleum Technology Seminar

2 Credit(s)
This course is a capstone course for the Petroleum Technology program and is designed to reinforce and apply the knowledge and skills learned in safety, petroleum, communication, mathematics, and technical courses throughout the course of the program. Options include an approved internship within the petroleum industry, or a capstone class.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C, HPE 110, and approval of program director.
or

PTRM 120 - Internship/Cooperative Work-Based Experience

2 Credit(s)
A summer internship is typically employment of a student by a petroleum company for the purpose of gaining experience while working as a temporary employee of the company. The student must work with the program director to arrange for an internship. The student must be approved by the company providing the internship so there are a number of requirements which must be met. Prerequisites include 24 hours in the program with a 2.5 or higher GPA and program director permission.

Prerequisite(s): PTRM 102 and PTRM 105

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

Total Credits (60-62)

*Courses with a hands-on lab component

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Health Information Technology, A.A.S.

Major Code: 262

The Health Information Technology, A. A. S. curriculum provides a comprehensive foundation in health information management. The first year provides students an introduction to foundational courses such as medical terminology, electronic health records, anatomy and physiology, diagnostic and procedural coding, reimbursement methodologies, and business math. Year two builds on this foundation by providing additional concentration of medical coding through intermediate and advanced courses. The curriculum in the program helps students develop the entry-level skills needed in health information management, collection and dissemination of health data, revenue cycle and reimbursement procedures, fraud and abuse, confidentiality, privacy, medical coding, information governance, and statistical outcomes.

Upon completion of the program students will meet eligibility requirements to sit for the Certified Billing and Coding Specialist (CBCS) and Registered Health Information Technician (RHIT) certification exams.

Program Outcomes:

· Demonstrate knowledge of entry-level procedures related to health information management, medical reimbursement, and the revenue cycle.

· Apply anatomy & physiology and medical terminology to medical billing and coding procedures.

· Demonstrate knowledge of data content, structure and information governance.

· Demonstrate knowledge of the legal process related application of HIPAA and to the access, use, disclosure, privacy and security of health care documentation.

· Demonstrate ability to utilize and analyze patient data, and demonstrate knowledge of revenue cycle management.

· Demonstrate leadership and organizational management skills.

· Demonstrate proficiency in the application of diagnostic and procedural coding to support reimbursement in multiple healthcare settings.

CIP Code: 510707

First Year

Fall Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

MBC 100 - Revenue Cycle Management I

3 Credit(s)
This course introduces students to the revenue cycle processes for inpatient, outpatient, and skilled care medical facilities. All components of the revenue cycle are covered including patient registration, medical billing and accounting processes, medical insurance and reimbursement methodologies.

Corequisite(s): MBC 110
Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

Spring Semester (16 Credits)

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students.

Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MBC 110 - Physician and Hospital Coding

3 Credit(s)
Students are introduced to basic ICD-10-CM diagnostic coding as well as CPT-4 and HCPCS procedural coding for inpatient, outpatient, and skilled care facilities. Emphasis is placed on the appropriate selection of codes to meet Medical Necessity standards for medical insurance claims. Codes are selected for Evaluation and Management, Surgery, and other medical diagnoses, prodecures, and supplies.

Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

MBC 125 - Revenue Cycle Management II

3 Credit(s)
This course is a continuation of MBC 100 . Focus is placed on the application of medical billing processes to include medical billing procedures and insurance claim requirements and processing for inpatient, outpatient, and skilled care facilities. Students demonstrate skills using an online medical office management system.

Prerequisite(s): MBC 100 and MBC 110
Pre/Corequisite(s): AHS 108, AHS 110, BIO 115, CIT 117, and MATH 115

Second Year

Fall Semester (16 Credits)

HIT 100 - Introduction to Health Information Technology

2 Credit(s)
This course provides an introduction to health information management and specifically to the role of the Registered Health Information Technologist (RHIT) as a member of the health care team. Emphasis is placed on the revenue cycle, health care regulators, health care providers, and the impact of medical coding processes and information systems on effective patient care.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , and MAS 151
Pre/Corequisite(s): MATH 210

HIT 145 - HIT Professional Practice Experience (PPE) I

2 Credit(s)
This course is designed to provide the student with the opportunity to apply the basic principles of health information management (HIM) in a virtual health care setting. Opportunities are provided for students to identify methods of data collection, application of HIM principles, patient records storage, data analysis, and patient confidentiality practices. This virtual practice experience accounts for 30 contact hours of the total practice hours required in the program.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): MATH 210 , HIT 100 ,HIT 150 , and HIT 235

HIT 150 - Health Record Documentation

3 Credit(s)
This course provides an in-depth study of medical records as the primary source of patient information and secondary source for research in clinical studies, public health data, and fraud and abuse within revenue cycle management. Medical documentation from a variety of medical facilities will be analyzed.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): MATH 210 , HIT 100 , HIT 145 , and HIT 235

HIT 235 - Intermediate Medical Coding

3 Credit(s)
This course expands the use of ICD-10-CM and ICD-10-PCS diagnostic and CPT-4 procedural coding. Students' medical coding skills advance from the basic outpatient medical records to the more complex inpatient hospital records. Emphasis is placed on the use of appropriate coding guidelines and the application of coding skills to meet compliance requirements related to the insurance component of the revenue cycle.

Prerequisite(s): MBC 100 , MBC 110 , MBC 125 (or) MAS 153 , MAS 125 , MAS 151
Pre/Corequisite(s): HIT 100 , HIT 145 , HIT 150 , and MATH 210

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (14 Credits)

HIT 240 - Quality Management and Performance Improvement

3 Credit(s)
This course addresses quality management and performance improvement in the use of medical data, information protection, health information and data analytics. Management processes for the health information management field are also addressed.

Prerequisite(s): HIT 100, HIT 145, HIT 150, HIT 235, and MATH 210

HIT 260 - Advanced Medical Coding

3 Credit(s)
This course is designed to provide the student advanced experience extracting patient data and assigning ICD-10-CM, ICD-10-PCS, HCPCS, and CPT-4 codes. The student will apply coding conventions and guidelines specific to each coding system to accurately assign codes to patient charts. Basic HIM applications are utilized to perform both quantitative and qualitative analysis. Encoder use and various coding software applications are also reviewed.

Prerequisite(s): HIT 100, HIT 145, HIT 150, HIT 235, and MATH 210

HIT 263 - Health Information Technology Seminar

2 Credit(s)
This course provides students with a review in preparation for the Registered Health Information Technologist (RHIT) certification exam. Information and resource strategies are also addressed related to organizational changes, ethical behaviors in the workplace, and human resources management.

Corequisite(s): HIT 265
Pre/Corequisite(s): HIT 240 and HIT 260

HIT 265 - HIT Professional Practice Experience (PPE) II

3 Credit(s)
Under direct supervision of a Health Information Management instructor, the student experiences day-to-day practice operations in health records management. PPE II is a comprehensive 90-hour learning experience at a medical affiliate site selected by the Program Director. Upon completion of this final practical experience, the student will have the skills to function in an entry-level HIM professional position.

Corequisite(s): HIT 263
Pre/Corequisite(s): HIT 240 and HIT 260

- SS - Social Science Core Elective **3 Credit(s)**

Total Credits (60)

**Students who plan to transfer to a four year institution should take SPCH 105.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Human Services, A.A.S.

Major Code: 324

This program is designed for students who want to prepare for careers in human service agencies. It also is for employees of such agencies who wish to obtain new knowledge or skills. Students will use the knowledge and skills of the social sciences to learn more about human behavior, especially as it relates to assessing and designing interventions for maladaptive or problem behaviors in children, adolescents, adults and the elderly.

In addition to General Education Outcomes, students successfully completing and receiving a Human Services A.A.S. degree should be able to:

- Explain history, concepts, theories and strategies used in psychology & human services delivery systems.
- Explain issues related to the needs of different types of clients based on cultural, family, and individual factors.

- Demonstrate professionalism and apply discipline-based ethics in clinical settings by successfully completing an internship.
- Apply the skills, techniques, strategies, and abilities needed for assessing, treatment planning, and therapeutic communication with clients in individual or group settings
- Apply the skills and abilities needed to be objective, understanding, and empathetic toward individuals from diverse backgrounds and ability levels.

Graduates of this program can expect to be employed in human services agencies in positions which do not require bachelor's degrees as occupational, social skills or basic living skills trainers or assistants, as behavior specialists, as case aides or caseworkers, or as mental health or crisis intervention technicians. To become licensed social workers, certified addictions counselors or similar professionals, students with the associate degree will need to continue their education by earning more advanced degrees at other colleges or universities. Students who plan to complete a bachelor's degree before seeking employment should consider earning an Associate in Arts degree with a concentration in Human Services rather than an Associate in Applied Science degree in Human Services in order to obtain credits in more courses that will easily transfer to four-year institutions.

The employment outlook for these jobs currently is average to above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

Job Titles: Case Manager, Child Protective Services Worker, Family Protection Specialist, Family Service Worker, Youth Services Specialist, Direct Services Worker

Wage and Employment Trends:

- $20,000 to $28,000 (US Dept of Labor, 2017)
- 5% growth in the next seven years (US Dept of Labor, 2017)

CIP Code: 440701

First Year

Fall Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing

proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15-17 Credits)

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- MATH - Restricted Math Core **3(4) Credits** *

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Second Year

Fall Semester (16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following

semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s)** ##
  SCI - Science Core Requirement **3(4) Credit(s)***

Spring Semester (15 Credits)

- Elective - can be any college-level course **3 Credit(s)**

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

HS 208 - HS Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar that requires a total of 200 contact hours at an appropriate social services agency. It is considered the "capstone" course or experience for human services students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 205, HS 210, with a "C" or better, AND permission of a program instructor. Students may also be required to meet other criteria for entry into the field experience thay may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.

- Restricted Elective **3 Credit(s) ##**

Total Credits (61-63)

#Recommended for transferring students

Choose 6 hours of restricted electives from: ART 256, CRJ 245, PSYC 155, PSYC 210, PSYC 218 or SS 207.

* Restricted math core should be chosen only from MATH 109, MATH 108 or MATH 210. Students who plan to transfer should take MATH 108 or MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

** Before registering for the Field Placement, students must apply to and be accepted by an approved social services agency. There is also a class requirement of two hours every other week.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

LPN to RN Bridge, A.A.S. Program

MAJOR CODE: 247

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The LPN to RN Bridge program is a hybrid/in seat program that focuses on the role development and transition of the LPN into the role of the RN. This program is aimed at LPNs who wish to further their education and earn an Associate Degree in Nursing (Nursing, A.A.S.) while continuing to work as a LPN.

The LPN to RN Bridge program starts in the summer semester with a 12-week LPN to RN Transition course, NUR 111. This is a demanding, fast-paced hybrid course which meets one day a week for 12 weeks for online didactic instruction with additional 45 hours of hands-on instruction in the lab, simulation and clinical settings. Students must be able to critically think and learn information in an accelerated manner. Once the student successfully completes the summer semester program of study requirements, the student will matriculate into the second year of the Associate Degree Nursing Program (See Nursing, A.A.S. catalog description). The LPN to RN Bridge Program incorporates courses such as anatomy and physiology, developmental psychology, microbiology, humanities and pharmacology in addition to the required nursing courses across the lifespan.

The LPN to RN Bridge program guides practice within the regulatory framework of professional, ethical, and legal responsibilities of the registered nurse and encourages lifelong learning. The program can be completed over three consecutive semesters. Faculty will use a variety of teaching strategies in the classroom, skills lab, clinical, and simulation lab to promote evidenced based practice and clinical judgement. Upon successful completion of the LPN to RN Bridge program and the achievement of an Associate Degree in Applied Science, the graduate will be able to apply for their RN licensure exam.

Pre-requisites for the program include ENG 101 and BIO 114 or BIO 220, an active unencumbered LPN license and a TEAS Test score of at least 58.

The Registered Nurse works to promote health, prevent disease, provide physical and emotional support to cope with illness and restore health. They provide direct patient care and are advocates and health educators for patients, families, and communities. Nurses are employed in the acute and long term care facilities or hospitals, physician office, home health, community, school, business, industry, and in private settings. They must be physically capable to spend considerable time walking and standing; be able to lift fifty pounds; and be required to mobilize quickly to respond to an emergency. Nurses need emotional stability and a caring philosophy in order to cope with human suffering, emergencies, and stress. Because patients in hospitals and facilities require 24-hour care, nurses in these institutions may work nights, weekends, and holidays.

End of Program Student Learning Outcomes

In addition to General Education Outcomes, graduates will be prepared to:

Human Flourishing Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient's individual values and needs.

Nursing Judgment Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.

2. Generate safe and effective patient centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the health care environment.

Professional Identity Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.

4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and the Code of Ethics.
5. Evaluate the utilization of health care system resources to efficiently and effectively manage care.

Spirit of Inquiry Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

6. Integrate current best practices to plan and implement safe and effective patient care.

Nursing education programs include classroom instruction, supervised and precepted clinical experience in hospitals and other health facilities, and community experiences. Students take courses in biological sciences, behavioral sciences, and liberal arts in addition to nursing courses. Students must complete the required nursing courses in the program on a continuous full-time basis within 2 years or a maximum of 3 years if an interruption in education continuum occurs. The program has a specific application, selection requirements, background and drug screening, standard of progress policies, requirement deadlines and abides by the WV State Board of Registered Nursing Education requirements for nursing education. Contact the Nursing Program Director for additional information. Upon the completion of this basic accredited nursing education and successful completion of the National Council Licensure Exam the student will apply to their selected state for license to practice.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Nursing Program Director.

CIP Code: 513801

Summer Semester (15/16 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)

This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

NURS 111 - LPN to RN Transition Course

6 Credit(s)
This course facilitates the transition of the LPN to the role of the associate degree nurse.

Prerequisite(s): LPN Licensure, ENG 101 , BIO 114, or BIO 220.
Corequisite(s): NURS 112
Pre/Corequisite(s): PSYC 208

NURS 112 - Clinical Applications in Nursing Practice

3 Credit(s)
This is a 3-hour course focusing on clinical applications of pharmacology in nursing practice. Students will utilize the nursing process to understand the correlation of medication effects with patient outcomes. The course will discuss actions, interactions, adverse effects, and nursing implications of drug classifications. Topics include the responsibilities of the nurse and safe administration of medications within a legal/ethical framework.

Prerequisite(s): BIO 114 or BIO 220 , NURS 132 , NURS 133 , NURS 134
Corequisite(s): NURS 142 and NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Fall Semester (13 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The

topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

NURS 234 - Nursing Concepts of Health and Illness II

9 Credit(s)
This course expands the concepts of the wellness-illness continuum, with emphasis on the expanding family and tertiary care within the community. Classroom and laboratory experiences provide opportunity for analysis within the nursing process and application of clinical judgment and decision making.

Prerequisite(s): BIO 115 or BIO 225 , NURS 144
Pre/Corequisite(s): BIO 117 , PSYC 208

Spring Semester (15 Credits)

NURS 245 - Professional Nursing and Health Systems Concepts

3 Credit(s)
This capstone course will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional registered nurse. Topics of discussion will include national health policy and politics, ethical and bioethical issues, career development, application for state licensure and preparation for the NCLEX-RN examination.

Prerequisite(s): NURS 234
Corequisite(s): NURS 244
Pre/Corequisite(s): Humanities Core Requirement (3)

NURS 244 - Synthesis of Nursing Concepts

9 Credit(s)
This course, together with the capstone course, focuses on the integration of interrelated concepts across the wellness-illness continuum. Classroom and laboratory experiences provide opportunity for synthesis of the nursing process and integration of clinical judgment and decision making.

Prerequisite(s): NURS 234
Corequisite(s): NURS 245
Pre/Corequisite(s): Humanties Core Requirement
Humanities Core Requirement ## 3 Credit Hours

Total Credits (61/62)*

*Approved Credit for Prior Learning accounts for 17-18 credits.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to the General Education Core Requirements for the Associate in Applied Science Program listed below for accepatble core requirements

Associate in Applied Science General Education Requirements

Medical Assisting, Clinical Medical Assistant, A.A.S.

Major Code: 161

Students entering the Clinical Medical Assistant Program will be trained in clinical procedures for entry-level employment in medical ambulatory care settings. Graduates are prepared for employment as "competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and effective (behavior) learning domains". Campus lab preparatory experiences and a 160-hour supervised and unpaid practicum afford students the opportunity for observation and hands-on training in outpatient medical procedures within the scope of practice of the Medical Assistant.

Upon completion of the program, graduates will be able to:

- Demonstrate entry-level competence as a medical assistant in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains consistent with the American Medical Technologists (AMT).
- Perform administrative and clinical duties as multi-skilled medical assistants including professionalism in interactions with patients, the college community, and during practicum experiences.
- Complete required competencies and national certifications to become Registered Medical Assistants.
- Apply effective communication, critical thinking, and problem-solving skills to provide care and support in the medical assisting profession.

Occupations available for students completing program requirements include Registered Medical Assistant positions primarily in ambulatory care settings. According to the U.S. Department of Labor's Occupational Outlook, employment of medical assistants is projected to grow 23 percent from 2014-2024, much faster than the average for all occupations. Medical Assisting is projected to be one of the fastest growing occupations due to the increasing numbers of group practices, clinics, and other health care facilities, especially for multi-skilled medical assistants trained in both administrative and clinical duties.

The WVNCC Medical Assisting: Clinical Medical Assistant, A.A.S Program is accredited by the American Medical Technologist (AMT). American Medical Technologist, 10700 West Higgins Rd, Suite 150, Rosemont, IL 60018, Phone 847-823-5169, www.americanmedtech.org. Graduates of this program can test for the Registered Medical Assistant credential from the American Medical Technologist RMA/AMT.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Health Science Program Director.

Job Titles: Clinical Medical Assistant, Certified Clinical Medical Assistant, Registered Medical Assistant

Wage and Employment Trends:

- Annual Range Regionally $22,000 to $26,000 (Onet, 2017)
- Projected job growth nationally 262,100 (Onet, 2017)
- Certification Options: Registered Medical Assistant (RMA) through American Medical Technologist or Certified Clinical Medical Assistant (CCMA) through National Healthcareer Association (NHA)

CIP Code: 510801

First Year

Fall Semester (16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MAS 150 - Introduction to Medical Administrative Procedures

3 Credit(s)
This course introduces the Medical Assisting profession with emphasis on the medical administrative competencies. Students explore the role of the Medical Assistant as a member of the health care team. Topics focus on therapeutic

patient communications, the medical record, professionalism, community resources, office productivity, the application of HIPAA and OSHA standards and medicolegal issues.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an

overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MAS 125 - Basic Diagnostic and Procedural Coding

2 Credit(s)
This course introduces coding skills required for basic medical coding in physicians' offices and other ambulatory care settings. Emphasis is placed on the conventions of ICD diagnostic and CPT procedural coding, and appropriate selection of codes to demonstrate medical necessity.

Pre/Corequisite(s): AHS 103 and BIO 114.

MAS 151 - Medical Financial Management

2 Credit(s)
This course includes practical application of financial procedures in the medical practice including computerized financial processes, electronic insurance submission, reimbursement, patient billing, collections, and banking procedures.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and MATH 109 .

MAS 153 - Medical Insurance and Reimbursement Methodologies

2 Credit(s)
This course provides students with entry-level skills for completion and processing of medical insurance forms for financial reimbursement. Emphasis is on insurance terminology and the policies and procedures related to completion of insurance claims for private, state, federal, and Worker's Compensation providers.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Second Year

Fall Semester (14 Credits)

MAS 201 - Clinical Medical Assistant I

3 Credit(s)
This course introduces students to the clinical competencies required for medical assistants. Attention is given to patient preparation, assisting with patient care, medication administration, vital signs, basic specimen collection and testing, phlebotomy skills, and universal precautions. Emphasis is placed on working within the Scope of Practice for the Medical Assistant.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 , or MBC 100 , MBC 110 , MBC 125
Corequisite(s): MAS 202 and MAS 220.
Pre/Corequisite(s): PSYC 105 and MATH 115.

MAS 202 - Clinical Medical Assistant Skills Lab

2 Credit(s)
This course provides campus lab experience for application of theory learned in MAS 201. Students apply skills related to handwashing, autoclaving, sterilization techniques, and the handling of biohazardous materials. Additional emphasis is placed on assisting with direct patient care, phlebotomy skills, and medication administration.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 OR MBC 100 , MBC 110 , MBC 125
Corequisite(s): MAS 201 and MAS 220.
Pre/Corequisite(s): PSYC 105 and MATH 115.

MAS 220 - Medical Assisting Seminar I

3 Credit(s)
This seminar course reinforces administrative skills for Clinical Medical Assisting AAS students preparing for the Practicum Experience in a physician's office or other ambulatory care setting. Focus is on both theory and application of administrative procedures.

Prerequisite(s): MAS 150 ; MAS 125 , MAS 151 , MAS 153 OR MBC 100 , MBC 125 , MBC 110
Corequisite(s): MAS 201 and MAS 202.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (16 Credits)

MAS 210 - Clinical Medical Assistant II

3 Credit(s)
This lecture course is a continuation of theory taught in MAS 201. Students are provided the opportunity to review theory and to discuss in the classroom the application of theory and skills being simultaneously completed in the Practicum course (MAS 211).

Prerequisite(s): MAS 201, MAS 202, PSYC 105, MAS 220, MATH 115.

Corequisite(s): MAS 211 and MAS 221.
Pre/Corequisite(s): SPCH 101 or SPCH 105 , and PSYC 208.

MAS 211 - Clinical Medical Assistant Practicum

4 Credit(s)
This course provides students with a 160-hour supervised, unpaid practicum experience required for certification as a Medical Assistant. Students observe and/or practice administrative and clinical skills in the physician's office or other ambulatory care settings. Students apply skills including patient registration, insurance and billing processes, patient education, specimen collection, phlebotomy skills, medication administration and other patient care as permitted within the scope of the practice of the clinical medical assistant at Practicum sites.

Prerequisite(s): MAS 201, MAS 202, MAS 220, PSYC 105, MATH 115,
Corequisite(s): MAS 210 and MAS 221.
Pre/Corequisite(s): PSYC 208, and SPCH 101 or SPCH 105.

MAS 221 - Medical Assisting Seminar II

3 Credit(s)
This seminar course reinforces clinical skills for Clinical Medical Assisting AAS students participating in Clinical Practicum and preparing for the Certified Medical Assistant certification examination. Focus is on both theory and application of clinical procedures.

Prerequisite(s): MAS 201, MAS 202, MAS 220, PSYC 105, MATH 115.
Corequisite(s): MAS 210 and MAS 211.
Pre/Corequisite(s): PSYC 208, and SPCH 101 or SPCH 105 .

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Total Credits (60)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Medical Laboratory Technology, A.A.S.

Major Code: 249

The Medical Laboratory Technology program prepares its graduates for employment in hospital, urgent care, physicians' office, research and industry laboratory settings. Examination and analysis of body fluids, tissues and cells play a crucial role in physician's ability to diagnose and treat disease. The medical laboratory technology program trains students to work in various areas of the clinical laboratory, including hematology, urinalysis, immunohematology (blood bank), microbiology, chemistry, and phlebotomy. Students collect blood samples, work with state of the art clinical laboratory instrumentation, perform clinical and microscope analysis of urine, crosss-match blood for transfusion, identify abnormal blood cells under the microscope and identify infectious bacteria-causing infection in various body locations. Upon completion of the accredited program, graduates will possess an associate of applied science degree and are eligible to take the American Medical Technologist (AMT) Board of Certification national certifying examination. Those passing the examination and certified as medical laboratory technicians (MLT-AMT).

Program Learning Outcomes:

1. Interpret patient and quality control test results for normal, abnormal, and critical values and take appropriate follow up action when necessary.
2. Operate and maintain laboratory instrumentation in the Phlebotomy, Hematology, Immunohematology, Chemistry, Microbiology, Immunology/Serology, and Coagulation areas of the clinical laboratory.
3. Demonstrate the clinical significance of laboratory results in the diagnosis and treatment of disease.
4. Interpret and recognize the aspects of a laboratory quality assurance program.
5. Communicate sufficiently to meet the needs of the laboratory and patient care.
6. Successfully pass a National Certification Exam (ASCP) in Medical Laboratory Technician.

Accreditation via the Higher Learning Commission

Higher Learning Commission
230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411
Phone: 800.621.7440 / 312.263.0456 | Fax: 312.263.7462

https://www.hlcommission.org/about-hlc/contact-us/

Trainee Licensure

West Virginia Office of Laboratory Services

167 11th Avenue

South Charleston, WV 25303

Ph. 304-558-3530

https://dhhr.wv.gov/ols/regulatory/Pages/Licensure.aspx

Board of Certification

American Medical Technologist

10700 West Higgins Rd, Suite 150
Rosemont, IL 60018

Ph. 847-823-5169

mail@americanmedtech.org

CIP Code: 51.1004

First Year

Fall Semester (15 Credits)

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

MLAB 111 - Introduction to Clinical Laboratory Science

2 Credit(s)
Introduction of the student to the profession of laboratory medicine. This includes: organizational structure of hospitals and laboratories; medical ethics; related medical terminology; quality assurance; laboratory safety; calculations and knowledge of the basic routine laboratory tests.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MLAB 112 - Laboratory Analysis and Calculations

2 Credit(s)
This course will prepare Medical Laboratory Science students to understand clinical analysis procedures such as spectrophotometry, creatinine clearance, body fluid cell counts, red blood cell indices, etc. and the calculations necessary to make chemical solutions and interpret quality control procedures.

Corequisite(s): MLAB 111, MLAB 131 , MLAB 132 , MLAB 133

MLAB 131 - Introduction to Hematology

2 Credit(s)
Introduction to venous and micro blood collection techniques, Introduction to basic hematology theory and laboratory procedures. College competency required in the performance of venous and micro blood collection, normal WBC differentials, Erythrocyte Sedimentation Rates, manual cell counts, and reticulocyte counts

Corequisite(s): MLAB 111 , MLAB 112 , and MLAB 133

MLAB 132 - Urinalysis and Body Fluids

2 Credit(s)
Body Fluid cell counts and chemical analysis, and basic urinalysis theory and procedures. College competency required in the performance of routine urinalysis, and CSF cell counts

Prerequisite(s): MLAB 131
Corequisite(s): MLAB 111 , MLAB 112 , and MT 133

MLAB 133 - Hematology I/Urinalysis Clinical Practicum

3 Credit(s)
Clinical practicum in Hematology and Urinalysis at an affiliated clinical agency. Clinical competency required in the performance of venous and micro blood collection, routine urinalysis, body fluid cell counts, normal WBC differentials, Erythrocyte Sedimentation Rates, manual cell counts, and reticulocyte counts.

Corequisite(s): MLAB 111 , MLAB 112 ,MLAB 131 , and MLAB 132

Spring Semester (14 credits)

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MLAB 135 - Advanced Hematology and Hemostasis

2 Credit(s)
Topics include:
Hematologic and cytochemical findings in anemias, leukemias and selected diseases; instrumentation; calculations; abnormal histogram and scattergram interpretation; basic theory in hemostasis and coagulation test procedures. College laboratory required with competency in hematology and coagulation procedures.

Corequisite(s): MLAB 140 , MLAB 145
Pre/Corequisite(s): MLAB 111

MLAB 140 - Immunohematology Concepts and Procedures

2 Credit(s)
Topics include humoral immune response; basic blood groups and types; direct and indirect antiglobulin tests; crossmatching; donor testing and selection; hemolytic disease of the newborn; Rh immune globulin candidacy testing; advanced coagulation tests; quality control. College laboratory required with competency in immunohematology procedures.

Prerequisite(s): MLAB 135
Corequisite(s): MLAB 145
Pre/Corequisite(s): MLAB 111

MLAB 145 - Hematology II and Immunohematology Clinical Practicum

3 Credit(s)
Clinical practicum in Advanced Hematology methods and instrumentation, abnormal WBC differentials, and Immunohematology methods at an affiliated clinical agency. Clinical competency hematology, coagulation, and immunohematology methods required.

Corequisite(s): MLAB 135, MLAB 140
Pre/Corequisite(s): MLAB 111

Summer Semester (3 Credits)

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

Second Year

Fall Semester (14 Credits)

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

CHEM 100 - Intro to General, Organic, and Biochemistry I

4 Credit(s)
This course provides an understanding of and appreciation for general, organic and biochemistry. Includes atomic and molecular structure, intermolecular and intramolecular forces, properties of matter, states of matter, solutions, principles of reactions (including acid-base, redox), and nuclear chemistry. This course contains a lecture and laboratory component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097

MLAB 213 - Clinical Microbiology, Immunology, and Serology

9 Credit(s)
Review of clinically popular specimen collection and plate reading techniques in medical microbiology; medias used for isolation and identification of microorganisms; study of key biochemical tests identifying commonly isolated pathogenic bacteria to genus/species; antibiotic sensitivity testing; etiologic agents of common bacterial/viral disorders; etiology, epidemiology, and diagnosis of clinically important pathogenic fungi and parasites; common instrumentation used in clinical microbiology laboratories; study of principles and procedures for diagnosis of pregnancy, infections, and immunologic diseases.

Prerequisite(s): MLAB 111 , MLAB 112 , MLAB 131 , MLAB 133 , MLAB 135 , MLAB 140 , MLAB 145

Spring Semester (17 credits)

CHEM 101 - Intro to General, Organic, and Biochemistry II

4 Credit(s)
Continuation of CHEM 100. Emphasis is on organic and biochemistry. Topics include nomenclature; structure classification and typical reactions of organic compounds; and properties, synthesis, and metabolism of carbohydrates, lipids, nucleic acids, and proteins. Role of enzymes, hormones, vitamins, and drugs is also discussed. This course contains a lecture and a lab component.

Prerequisite(s): CHEM 100 with a C or better

MLAB 221 - Clinical Chemistry

10 Credit(s)
Chemistry for Clinical Laboratory Science students will include carbohydrate and nonprotein nitrogen metabolism, water and electrolyte balance, trace elements, blood gases, liver function tests, protein metabolism, enzymology, renal function tests, lipid metabolism, abnormal hemoglobins, endocrinology, therapeutic drug monitoring and toxicology. Instrumentation and correlation of laboratory data to human disease. Clinical and college laboratory required with competency in accurate/precise measurement of organic and inorganic analyses in body fluids.

Prerequisite(s): MLAB 213

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Total Credits (63)

Total Credits (63)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Nursing, A.A.S.

Major Code: 250

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The Registered Nurse works to promote health, prevent disease, provide physical and emotional support to cope with illness and restore health. They provide direct patient care and are advocates and health educators for patients, families, and communities. Nurses are employed in the acute and long term care facilities or hospitals, physician office, home health, community, school, business, industry, and in private settings. They must be physically capable to spend considerable time walking and standing; be able to lift fifty pounds; and be required to mobilize quickly to respond to an emergency. Nurses need emotional stability and a caring philosophy in order to cope with human suffering, emergencies, and stress. Because patients in hospitals and facilities require 24-hour care, nurses in these institutions may work nights, weekends, and holidays.

End of Program Student Learning Outcomes

In addition to General Education Outcomes, graduates will be prepared to:

Human Flourishing Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient's individual values and needs.

Nursing Judgment Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.

2. Generate safe and effective patient centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the health care environment.

Professional Identity Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.

4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and the Code of Ethics.
5. Evaluate the utilization of health care system resources to efficiently and effectively manage care.

Spirit of Inquiry Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

6. Integrate current best practices to plan and implement safe and effective patient care.

Nursing education programs include classroom instruction, supervised and precepted clinical experience in hospitals and other health facilities, and community experiences. Students take courses in biological sciences, behavioral sciences, and liberal arts in addition to nursing courses. Students must complete the required nursing courses in the program on a continuous full-time basis within 2 years or a maximum of 3 years if an interruption in education continuum occurs. The program has a specific application, selection requirements, background and drug screening, standard of progress policies, requirement deadlines and abides by the WV State Board of Registered Nursing Education requirements for nursing education. Contact the Nursing Program Director for additional information. Upon the completion of this basic accredited nursing education and successful completion of the National Council Licensure Exam the student will apply to their selected state for license to practice.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Nursing Program Director.

Pre-requisites for the program include ENG 101 and a TEAS Test score of at least 58.

CIP Code: 513801

First Year

Fall Semester (14/15 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)

This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary

system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

Or

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

NURS 132 - Drug and Dosage Calculations I

1 Credit(s)
This course is designed to enhance the nursing student's ability to read, interpret, and solve dosage calculation problems. Critical thinking skills are applied to medication situations to emphasize the importance of accuracy and the avoidance of medication errors.

Prerequisite(s): ENG 101
Corequisite(s): NURS 134, NURS 133.
Pre/Corequisite(s): BIO 114 or BIO 220

NURS 133 - Health Assessment and Diagnostics

2 Credit(s)
This course is designed to introduce the nursing student to the knowledge and skills required to perform a health assessment across the lifespan and to document appropriate findings. The nursing student will be introduced to normal lab values and basic diagnostic procedures.

Prerequisite(s): ENG 101
Corequisite(s): NURS 134, NURS 132
Pre/Corequisite(s): BIO 114 or BIO 220

NURS 134 - Introduction to Nursing Concepts

8 Credit(s)
This foundational course is designed to introduce concepts to the beginning nursing student that will focus on maintaining health and promoting wellness throughout the lifespan. Concepts and core values basic to the foundation of nursing practice are presented. Classroom and laboratory experiences provide opportunity for understanding of the

nursing process, clinical judgement and decision making.

Prerequisite(s): ENG 101
Corequisite(s): NURS 132, NURS 133.
Pre/Corequisite(s): BIO 114 or BIO 220

Spring Semester (16/17 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

NURS 112 - Clinical Applications in Nursing Practice

3 Credit(s)
This is a 3-hour course focusing on clinical applications of pharmacology in nursing practice. Students will utilize the nursing process to understand the correlation of medication effects with patient outcomes. The course will discuss actions, interactions, adverse effects, and nursing implications of drug classifications. Topics include the responsibilities of the nurse and safe administration of medications within a legal/ethical framework.

Prerequisite(s): BIO 114 or BIO 220 , NURS 132 , NURS 133 , NURS 134
Corequisite(s): NURS 142 and NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

NURS 142 - Drug and Dosage Calculations II

1 Credit(s)
This course expands the nursing student's ability to read, interpret, and solve increasingly complex dosage calculation problems. Critical thinking skills are applied to age and acuity specific variations in select populations.

Prerequisite(s): BIO 114 or BIO 220, ENG 101, NURS 132, NURS 133, NURS 134.
Corequisite(s): NURS 112 , NURS 144
Pre/Corequisite(s): BIO 115 or BIO 225

NURS 144 - Nursing Concepts of Health and Illness I

9 Credit(s)
This course is builds upon foundational concepts across the lifespan while introducing the concepts of the wellness-illness continuum and the individual and family response. Classroom and laboratory experiences provide opportunity for application of the nursing process and development of clinical judgment and decision making.

Prerequisite(s): BIO 114 or BIO 220 , ENG 101 , NURS 132 , NURS 133 , NURS 134.
Corequisite(s): NURS 112 , NURS 142
Pre/Corequisite(s): BIO 115 or BIO 225

Second Year

Fall Semester (16 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

NURS 234 - Nursing Concepts of Health and Illness II

9 Credit(s)
This course expands the concepts of the wellness-illness continuum, with emphasis on the expanding family and tertiary care within the community. Classroom and laboratory experiences provide opportunity for analysis within the nursing process and application of clinical judgment and decision making.

Prerequisite(s): BIO 115 or BIO 225 , NURS 144
Pre/Corequisite(s): BIO 117 , PSYC 208

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

Humanities Core Requirement ## **Credits / Units:** 3

NURS 244 - Synthesis of Nursing Concepts

9 Credit(s)
This course, together with the capstone course, focuses on the integration of interrelated concepts across the wellness-illness continuum. Classroom and laboratory experiences provide opportunity for synthesis of the nursing process and integration of clinical judgment and decision making.

Prerequisite(s): NURS 234
Corequisite(s): NURS 245
Pre/Corequisite(s): Humanties Core Requirement

NURS 245 - Professional Nursing and Health Systems Concepts

3 Credit(s)
This capstone course will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional registered nurse. Topics of discussion will include national health policy and politics, ethical and bioethical issues, career development, application for state licensure and preparation for the NCLEX-RN examination.

Prerequisite(s): NURS 234
Corequisite(s): NURS 244
Pre/Corequisite(s): Humanities Core Requirement (3)

Total Credits (60)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Radiography, A.A.S.

Major Code: 148

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are

presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The most familiar use of the x-ray is the diagnosis of broken bones. Today's radiologic technology includes the use of radiation for diagnostic and therapeutic procedures. Imaging techniques that use Ultrasound, Computerized Tomography, and Magnetic Resonance Imaging (MRI) are growing rapidly. Hospitals are the principal employers of radiologic technologists, but new opportunities now exist in clinics, physician offices and Diagnostic Imaging Centers. The United States Department of Labor, Bureau of Statistics indicates that employment for radiologic technologists is expected to grow faster than average through the year 2026.

The West Virginia Northern Community College Radiography Program Goals state that upon successful completion of the program, the graduate will...

1. Demonstrate the competency level & patient care skills & knowledge of an entry-level technologist.

2. Identify the core didactic concepts of an entry-level technologist.

3. Display abilities in critical thinking, & problem-solving skills necessary for professional practice.

4. Develop effective communication skills throughout their career.

5. Exhibit professional values & life-long learning.

6. Be an entry-level functioning technologist in the healthcare community.

*Academic Degree Requirement effective 2015 for primary certification - Eligibility requirements for American Registry of Radiologic Technologists (ARRT) certification in Radiography, Nuclear Medicine Technology, and Radiation Therapy and for the primary pathway to MRI and Sonography will - effective January 1, 2015 - call for candidates to have earned an associate (or more advanced) degree from an accrediting agency recognized by ARRT. ARRT believes that the general education courses required for an academic degree will provide a firm foundation to support the evolving role of the technologist and the lifelong learning necessitated by the increasing rate of technological change. Quantitative and communication skills and understanding of human behavior that are acquired through general education classes are believed by ARRT to have value in continuing to shape professionalism and advancement of a Registered Technologist's role in health care. The degree will not need to be in radiologic sciences, and it can be earned before entering the educational program or after graduation from the program.

** Successful completion of and graduation from the WVNCC Radiography Program will meet the academic degree eligibility requirements for the ARRT certification. WVNCC Radiography Program graduates do NOT have to attend a hospital-based certificate program to receive their A.A.S. degree in Radiography.

Go to www.arrt.org for further details.

Job Titles: Radiographer, Radiologic Technologist (RT), Radiological Technologist, Radiology Technologist, Staff Technologist, X-Ray Technologist, Computed Tomography Technologist (CT Technologist), Mammographer, Mammography Technologist.

Wage and Employment Trends:

- Average Salary $77,660 (Onet 2024)
- 4% Projected growth (Onet, 2024)
- Certification Options: ARRT (American Registry of Radiologic Technologists)

CIP Code: 510911

First Year

Fall Semester (16 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

RAD 100 - Introduction to Radiography

2 Credit(s)
This course will give a history of Radiography as well as aspects of hospital organization and accrediting agencies. It will define credentialing and professional organizations, discuss medical ethics and law, and identify members of the health care team. Basic radiation protection and specific radiographic terminology will be explained, along with cultural diversity, Maslow's Hierarchy, and the Grieving Process.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 105, RAD 110, RAD 115 and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 105 - Radiography I

2 Credit(s)
Image formation and x-ray beam production will be explained in this course. The basics of Density, Detail, Contrast, and Distortion will be thoroughly covered, as well as their controlling factors. Basic problem solving will also be practiced.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 100, RAD 110, RAD 115, and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 110 - Radiation Protection/Radiobiology I

2 Credit(s)
This course explains the fundamental principles of radiobiology. Students will review molecular and cellular biology. The radiosensitivity and response of tissues will be taught. Early and late effects of radiation will be covered.

Prerequisite(s): Admission to Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 115, RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 115 - Clinical Fundamentals I

1 Credit(s)
This course will introduce the new health care student to general information necessary to enter the clinical setting. The following entry level clinical skills will be explained in both theory and practice: proper patient transfer, proper body mechanics, retrieving patient history, communication techniques, and basic radiographic terminology and anatomy. Critical thinking skills will be introduced.

Prerequisite(s): Admission to the Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 110 and RAD 120.
Pre/Corequisite(s): BIO 114, ENG 101

RAD 120 - Radiography Procedures I

3 Credit(s)
This course will introduce the radiology student to basic body planes, positions, equipment, patient preparedness, and terms associated with performing exams on patients in the clinical setting. Anatomic areas to be studied include the following: chest, abdomen, extremities, and pediatric imaging. Students will study and review topics in the classroom setting, along with practice simulations and grading in the campus lab setting. Basic positioning proficiency will also be tested at the conclusion of this course.

Prerequisite(s): Admission to the Radiography Program.
Corequisite(s): RAD 100, RAD 105, RAD 110 and RAD 115.
Pre/Corequisite(s): BIO 114, ENG 101ENG 101

Spring Semester (16 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Math Core Requirement (3 Credits)

RAD 125 - Clinical Practice I

1 Credit(s)
This course introduces and incorporates practical experience in a variety of clinical settings such as offices, hospitals, and clinics. The student will begin to acquire competencies in general patient care activities, mandatory and elective radiologic procedures, and general clerical procedures necessary in each setting. Students will observe, assist, and then perform basic procedures. Competencies will be limited to only material covered in current or past RAD courses.

Prerequisite(s): BIO 114, ENG 101, RAD 100, RAD 105, RAD 110, RAD 120, RAD 115.
Corequisite(s): RAD 155, RAD 160, RAD 170, RAD 165.
Pre/Corequisite(s): BIO 115,MATH Core Requirement.

RAD 155 - Radiography II

3 Credit(s)
This course is a continuation of RAD 105 - Radiography I. Beam filtration and beamlimiting devices such as collimators will be described. Grids, manual settings vs. AEC, H & D Curves, and technique charts will be explained. The fundamentals of radiologic science will be discussed in this course, along with the structure of matter and atoms, and electromagnetic energy and electromagnetism. X-ray production, the interactions of photons with matter, and the basics of the x-ray tube will be taught.
Pre-Requisite:

Admission to the Radiography Program

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.
Corequisite(s): ENG 101 RAD 125, RAD 160, RAD 165 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 160 - Radiation Protection/Radiobiology II

2 Credit(s)
As a continuum of Radiation Protection/Radiobiology I, this course will expand on radiation units and the types and sources of radiation. Effective absorbed dose equivalents will be identified. Health physics and the cardinal principles of protection will be explained. Surveys and regulations, regulatory and advisory agencies, patient and occupations radiation dose management, as well as personnel monitoring will be covered.

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.
Corequisite(s): RAD 125, RAD 155, RAD 165 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 165 - Clinical Fundamentals II

1 Credit(s)
This course will enforce the basic skills previously learned in RAD 115 - Clinical Fundamentals I, and build on the clinical skills necessary for students to grow in the clinical setting. The following new information will be introduced: portable radiography and its challenges, radiography in the operating room setting, infection control / isolation, along with tubes, catheters, and ostomies. General information regarding trauma patients in the radiographic setting will also be introduced. Continuation of radiographically pertinent terminology and anatomy will be further discussed along with additional critical thinking skills.

Prerequisite(s): BIO 114, ENG 101 RAD 100, RAD 105, RAD 110, RAD 120 and RAD 115.
Corequisite(s): RAD 125, RAD 155, RAD 160 and RAD 170.
Pre/Corequisite(s): BIO 115, MATH Core Requirement

RAD 170 - Radiography Procedures II

3 Credit(s)
This course will continue the progression of radiographic exams and the proper patient positioning necessary to obtain acceptable radiographic images learned in RAD Procedures I. Mobile and trauma radiography will be studied, as well as the following anatomic areas: complete upper extremity, shoulder girdle, lower extremity, pelvic girdle, and long bone measurement. Students will study and review topics in the classroom setting along with practice simulations and grading in the campus lab setting. Basic image evaluation proficiency will be tested at the conclusion of this course.

Prerequisite(s): BIO 114, ENG 101 , RAD 100, RAD 105, RAD 110, RAD 120 and RAD 115.
Corequisite(s): RAD 125, RAD 155, RAD 160 and RAD 165.
Pre/Corequisite(s): BIO 115, Math Core Requirement.

Summer Semester (1 Credits)

RAD 175 - Clinical Practice II

1 Credit(s)
This course is a continuation of clinical experience; increased performance expectations while dealing with patients is gained by this course. The student will continue the competencies for both general patient care activities and radiologic procedures. Competencies will be limited to only material covered in current or past RAD courses.

Prerequisite(s): BIO 115, MATH Core Requirement, RAD 155, RAD 160, RAD 170, RAD 165.
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (14 Credits)

RAD 195 - Clinical Practice III

1 Credit(s)
This course is a continuation of clinical experience; increased performance expectations while dealing with patients is gained by this course. Increased clinical time will allow student to gain much needed experience and the opportunity to acquire the necessary competencies. With a smaller RAD course load during this semester, students will have ample time to complete this increased clinical experience. This increase in clinical experience will allow the student to gain much needed exam practice, exam competencies, and improve upon clinical skills. Competencies will again be limited to only material covered in current or past RAD courses.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 205, RAD 210, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 205 - Radiography III

3 Credit(s)
The third course in this four part series will focus on the principles of imaging and display of Computed Radiography and Digital Radiography. Quality Assurance, maintenance, types of image receptors, image acquisition errors, and software processing will all be identified in the course. This course will focus primarily on the x-ray circuit and

radiographic equipment. Single and three-phase circuitry, along with image-intensified fluoroscopy will be studied. This course will also allow time for the student to take a monthly Review Test.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 210, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 210 - Advanced Imaging Modalities

2 Credit(s)
Specialized modalities in the field of dianostic imaging will be explored in this course.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 215, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 215 - Clinical Fundamentals III

2 Credit(s)
This course will reinforce basic clinical fundamentals while giving the student more complex clinical knowledge and hands on skills. This course will address the following information: vital signs, patient lab information, contrast media, and venipuncture in relation to radiographic examinations. Venipuncture will be practiced and performed utilizing a "dummy" arm as well. This course will again reinforce critical thinking, terminology, and anatomy as it specifically pertains to radiography.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 210, RAD 220.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

RAD 220 - Radiography Procedures III

3 Credit(s)
This course will continue the progression of radiographic exams. More complex anatomic areas will continue to be studied such as the following: alimentary canal, as well as the urinary and reproductive systems. Students will be encouraged to independently study information regarding the various ancillary areas of the radiology field such as Ultrasound, Nuclear Medicine, CT Scanning, MRI, Radiation Oncology, and Cardiac Catheterization in preparation for clinical rotations in these areas during their final semester. Advanced positioning proficiency will be tested at the conclusion of this course.

Prerequisite(s): RAD 175.
Corequisite(s): RAD 195, RAD 205, RAD 210, RAD 215.
Pre/Corequisite(s): SPCH 101 or SPCH 105.

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (14 Credits)

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

RAD 225 - Clinical Practice IV

2 Credit(s)
A continuation of clinical experience with increased performance expectations while dealing with patients is gained by this course. The student will complete the competencies for both general patient care activities and radiologic procedures. Competencies will be limited to only material covered in current or past RAD courses. Students will be introduced to more complex exam procedures, specific ancillary areas.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 205, RAD 210, RAD 215, RAD 220, RAD 195.
Corequisite(s): RAD 255, RAD 260 ,RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 255 - Radiography IV

2 Credit(s)
The final installment in this continuing course will explore Radiographic Pathology and how it affects technique. QA/QM of the equipment will be discussed, as well as an overview of mathematical applications. This course will also explain the principles of Computed Tomography, including generations, components, operations, processes, and radiation protection. Time will be allotted for the student to take a monthly Review Test.

Prerequisite(s): RAD 195, RAD 205, RAD 210, RAD 215, RAD 220, SPCH 101 or SPCH 105.
Corequisite(s): RAD 225, RAD 260, RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 260 - Radiography Career Prep

3 Credit(s)
This course is designed for the student who is preparing to graduate and enter the workforce. Resume and interview tips will be part of the discussion, along with state license requirements. A thorough Registry Review will be conducted during the course. The student will be allotted time to work on an Online Registry Review Program. In addition, a research paper will be part of the course requirement.

Prerequisite(s): RAD 195, RAD 205, RAD 210, RAD 215, RAD 220, and SPCH 101 or SPCH 105.
Corequisite(s): RAD 225, RAD 255, RAD 265, RAD 270.
Pre/Corequisite(s): PSYC 105.

RAD 265 - Clinical Fundamentals IV

1 Credit(s)
This course will summarize all previously taught material that is necessary for an entry level technologist. It will promote cooperation between all health care fields for superior patient care in the clinical setting. This course will also discuss pharmacology in the radiographic setting, as well as medical emergencies such as shock, CVA, diabetes, MI, etc. This course offers a general review of clinical skills, critical thinking, terminology, anatomy, and a continuation of venipuncture with additional practice on the "dummy" arm, as well as "live" venous access. This course will also prepare the student for the radiography registry exam and reaffirm all theories relating to clinical fundamentals and clinical practice.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 195, RAD 205, RAD 210, RAD 215, RAD 220.
Corequisite(s): RAD 225, RAD 255, RAD 260, RAD 270.
Pre/Corequisite(s): PSYC 105

RAD 270 - Radiography Procedures IV

3 Credit(s)
This course will introduce more complex radiographic procedures such as the following: interventional studies, arthrography, CNS, as well as a follow-up to the ancillary areas discussed in RAD Procedures III. Completion of any remaining radiographic anatomy will also be studied such as vertebral column and headwork. A comprehensive review of all previously learned material since the initial semester of study will occur in order to prepare them for the registry exam. Advanced image evaluation proficiency will be tested at the conclusion of this course.

Prerequisite(s): SPCH 101 or SPCH 105, RAD 195, RAD 205, RAD 210, RAD 215, RAD 220.
Corequisite(s): RAD 225, RAD 255, RAD 260, RAD 265.
Pre/Corequisite(s): PSYC 105.

Total Credits (61)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

Students wishing to pursue a bachelor's degree should take MATH 108 or MATH 210.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Radiologic Technology, Degree Completion, A.A.S.

Major Code: 254

West Virginia Northern offers an Associate in Applied Science Degree (AAS) for graduates of accredited Radiologic Technology programs. Students must have successfully completed a hospital-based certificate program* such as the OVMC Radiology Program, the former Wheeling Hospital Radiology Program, Washington Hospital Radiology Program, or any other Joint Review Committee on Education in Radiologic Technology (JRCERT) -accredited certificate program to be eligible to earn an AAS Degree by completing designated courses at West Virginia Northern.

The courses at WVNCC must be completed in addition to the certificate program in order to be eligible to sit for the American Registry of Radiologic Technologists (ARRT) primary certification exam in Radiography.

Students with an ARRT Certification are eligible to receive applicable program credits.

The most familiar use of the X-ray is the diagnosis of broken bones. Today's radiation technology includes the use of radiation for diagnostic and therapeutic procedures. Imaging techniques that use ultrasound, computerized tomography, and magnetic resonance imaging (MRI) is growing rapidly.

Hospitals are the principal employers of radiologic technologists, but new opportunities now exist in clinics, physician offices and Diagnostic Imaging Centers.

* Student must contact the hospital-based program to obtain information regarding specific admission requirements for each hospital-based program.

Please note: Eligibility requirements for ARRT certification in Radiography, effective January 1, 2015 require candidates to earn an associate (or more advanced) degree from an accrediting agency recognized by ARRT. ARRT believes that the general education courses required for an academic degree provides a firm foundation to support the evolving role of the technologist and the lifelong learning necessitated by the increasing rate of technological change. Quantitative and communication skills and understanding of human behavior that are acquired through general education classes are believed by ARRT to have value in continuing to shape professionalism and advancement of a Registered Technologist's role in health care.

For more information please contact the ARRT at www.arrt.org for further details.

CIP Code: 510911

Fall Semester (6 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (9 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

- HUM - Humanities Core Requirement **3 Credit(s)**
- MATH - Math Core Requirement **3 Credit(s)** #

Summer Semester (55 Credits)

Radiologic Technology (hospital-based)

Accredited Hospital-based programs begin in the summer.

Total Credits (70)

Choose from: MATH 108, MATH 115 or MATH 210.

Notes: Local hospitals accept applications during the fall and begin class in the summer. Please contact the hospital for specific timelines and admission requirements.

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Applied Science General Education Requirements

Refrigeration, Air Conditioning and Heating Technology, A.A.S.

Major Code: 228

This is a program designed to provide the technical knowledge and skills required of persons employed in the air conditioning, heating and refrigeration businesses and industries. Students completing the program will be able to find employment in the areas of residential, commercial, and industrial air conditioning, heating and refrigeration installation, maintenance and service. Planned lectures and laboratory experiences parallel those activities performed by service technicians in the field and include installing and checking equipment, servicing and replacing major and minor components and troubleshooting and analysis of individual units and complete systems. Field trips to businesses and industries are an integral part of the program.

This program will give students a thorough and in-depth understanding of the technology as well as prepare them to make rapid transition into gainful employment.

Upon completion of this program, graduates will be able to:

- Test pressures and temperatures in a heating, air conditioning, or refrigeration system to troubleshoot system performance.
- Install heating, air conditioning, and refrigeration equipment pertaining to HVAC codes and regulations.
- Apply advanced principles of heating, air conditioning, ventilation, and refrigeration.
- Prepare students for a wide variety of careers in HVAC and refrigeration.
- Prepare students to interact effectively with customers.

Students will be prepared for current national and state certifications in the industry. WVNCC serves as a testing center for many of these certifications.

Job Opportunities: Graduates from this program can expect to obtain entry level employment in positions such as refrigeration and air conditioner installers and service technicians. Future career paths include dispatchers, service and installation managers, parts and equipment sales, building control technicians, facilities technicians and managers, and small business owners. Graduates are employed by refrigeration, air conditioning and heating service and installation contractors, facilities such as hospitals, colleges, and school districts, industrial plants, data centers, supermarkets, convenience stores, and restaurant chains, and trade unions.

Wage and Employment Trends:

- The employment outlook is excellent for this field of study with opportunities locally, regionally, and nationally.

CIP Code: 470201

First Year

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and

reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat. Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

RAH 110 - HVACR Piping Skills

3 Credit(s)
This course is an introduction course to HVAC/R field. The beginning of the course will introduce the career pathways. The student will be required to do a resume and start their path in this field. The students will cover the safety aspects of this field with a focus on basic safety. The students will also focus on the customer relations in this career pathway. The next portions of this class will focus on the multitude of tools that we use in this career field. The last portion of the class will focus on the physical cutting, fitting and joining of various types of copper, steel, and plastic pipe and tubing.

Spring Semester (15 Credits)

- MATH - Mathematics Core Requirements **3 Credit(s)##**

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

RAH 102 - Refrigeration Controls

3 Credit(s)
This course is an introduction to controls of refrigeration, heating and cooling systems. Students will become familiar with the mechanical and electrical components used in air conditioning and refrigeration systems to create the desired operation of these systems. The students will be introduced to basic electrical materials and components. They will learn schematic reading, and component identification of basic electrical items. The students will also become familiar with basic electronics and simple microproccesors. This course also introduces basic motors and some controls of those motors pertaining to Refrigeration and Air Conditioning systems. The final parts of the class will give an overview of mechanical and electrical control and protection devices as well as refrigerant flow components including valves and regulating devices. This course is meant to be an introduction and will be assessed at the introductory level.

RAH 209 - Forced Air Systems/Duct Layout

3 Credit(s)
This is a course in both design and fabrication of forced air systems. Students will calculate heating and cooling loads and use that information to design properly sized duct systems. Students will fabricate and install sheet metal duct systems and learn to use sheet metal tools to create duct and fittings.

Prerequisite(s): RAH 100

RAH 235 - Comfort Cooling

3 Credit(s)
The course introduces and reinforces topics in residential and commercial air conditioning. Topics to be covered will include types of air conditioners, split system air conditioners, commercial system overview, humidity control, thermostats, basics of energy management and conservation, as well as cooling loads for a structure. This course has many chapters and is full of a lot of new concepts for the student.

Prerequisite(s): RAH 100
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

RAH 206 - Heating Systems I

3 Credit(s)
This course will introduce students to gas and oil-fired furnaces. Students will identify furnace configurations such as upflow, downflow, and horizontal, and identify various components of gas and oil furnaces. Students will learn proper installation techniques, and how to perform adjustments and check for proper combustion on gas and oil equipment.

RAH 207 - Heating Systems II

3 Credit(s)
This course is a continuation of RAH 206. Topics to be covered include advanced high efficiency heating equipment, dual fuel systems, zoning strategies, VRF heat pumps.

Prerequisite(s): RAH 100, RAH 206, and RAH 209.
Corequisite(s): RAH 235.

RAH 220 - Hydronics

3 Credit(s)
This is a course in the utilization of water as a heat transportation medium. Students will become familiar with the operation and components of boilers, and chillers, and the operation, theory, and components of chilled water, hot water and steam systems.

Prerequisite(s): RAH 100, RAH 206, MEC 120.

Spring Semester (15 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
or

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

RAH 250 - Alternative Energy Concepts

2 Credit(s)
This is a survey course discussing alternative energy sources as pertaining to the HVACR industries and energy conservation. Topics discussed include geothermal, solar, and wind energy technologies.

RAH 260 - Certification Preparation

3 Credit(s)
This course will prepare students to take and pass various industry certification exams. Students will prepare for the current EPA certification exams, the current West Virginia Technician certification exams, and various national certification exams such at NATE, ICE, and HVAC Excellence.

Prerequisite(s): RAH 100 , RAH 209 , RAH 220 and RAH 235 or Program Director permission.
Corequisite(s): None
Pre/Corequisite(s): RAH 100 , RAH 209 , RAH 220 and RAH 235 or Program Director permission.

RAH 265 - Commercial Refrigeration

3 Credit(s)
This is a course in commercial and industrial refrigeration. Topics to be covered include reach in and walk in coolers and freezers, ice machines, compressed air dryers, industrial process cooling, and an introduction to supermarket systems.

Prerequisite(s): RAH 100 and RAH 102

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Applied Science General Education Core Requirements

Respiratory Therapy, A.A.S.

Financial Aid Eligibility Pending

Major Code: 248

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

The Respiratory Therapy program CoARC #200704, AAS degree program at WVNCC on the Wheeling Campus, holds provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com)

Respiratory therapists are employed in hospitals, skilled patient-care facilities, physician offices, home health agencies, free standing emergency departments, academic institutions and industry. The US department of Labor Bureau of Statistics indicates that employment for Respiratory therapist is expected to grow 13.2% faster than average through the year 2032 due to the substantial growth in the middle-aged and elderly population, which heightens the incidence of cardiopulmonary disease and the projected number of 90,000 practicing therapist expected to leave /retire from the profession by 2030.

The laboratory portions of the program, which reinforce concepts learned in lecture are held in our on-campus lab. Students have clinical experiences ranging from small community hospitals to large University hospitals, specialty rotations in the operating room, pulmonary function and sleep labs, pulmonary rehab, and home health agencies provide students with the knowledge and technical skills required of the Registered Respiratory therapist.

In addition to the General Education Outcomes, upon completion of this program, graduates will be able to:

Program Goal 1

To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills) and the affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapist (RRTs).

Program Goal 2

To prepare graduates to develop patient therapeutic goals of respiratory therapy basic care across the life span.

Program Goal 3

To provide graduates to fulfill the employment needs of Respiratory Care Professionals within the local and regional service area.

IMPORTANT INFORMATION: Additional costs are associated with this program such as physicals, vaccinations, titers, drug screening and background checks. If you have ever been convicted of a felony or misdemeanor for any reason, you may be denied employment, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code 51.0908

First Year

Fall Semester (16/17 Credits)

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
Or

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

RETH 101 - Introduction to Respiratory Therapy

4 Credit(s)
This is an introduction to respiratory therapy as a profession and to basic clinical assessment and care of patients. Professional aspects relating to the duties, responsibilities, professional ethics and liabilities of respiratory therapy personnel will be discussed. Principles and skills of basic patient care including patient assessment, record keeping, airway management and patient monitoring will be included.

Prerequisite(s): None
Corequisite(s): RETH 103
Pre/Corequisite(s): BIO 220, ENG 101, MATH 115

RETH 103 - Cardiopulmonary Pharmacology

2 Credit(s)
The general principles of Pharmacology including drug types; dispensing; dosage effects, including contraindications; and regulations are presented in this course. Drug groups relating to respiratory therapy will be emphasized including bronchodilators, wetting agents, mucolytics, proteolytics, antibiotics and antiasthmatic drugs.

Prerequisite(s): None
Corequisite(s): RETH 101
Pre/Corequisite(s): BIO 220, ENG 101, MATH 115

Spring Semester (15 Credits)

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

RETH 104 - Clinical Practicum I

2 Credit(s)
An introduction to the clinical setting is provided with an opportunity to begin initial care for the patient. Each student will begin through observation and Practice performing skills related to Basic Oxygen therapy, aerosol drug therapy, general airway clearance and maintenance therapy, 12 Lead ECG and Arterial blood gases may be performed while in the clinical setting.

Prerequisite(s): BIO 220, RETH 101, RETH 103
Corequisite(s): RETH 105, RETH 107
Pre/Corequisite(s): BIO 225

RETH 105 - Basic Respiratory Therapeutics

4 Credit(s)
Lecture and laboratory sessions are offered related to the administration of other medical gases; devices used for the delivery of gases; general respiratory therapy procedures, including principles of positive pressure use, Incentive spirometry,hyperinflation techniques, bronchopulmonary drainage, and drug aerosol therapy. Indications, hazards and contraindications will be included. The course also contains topics such as equipment processing, quality assurance, infection control and bronchoscopy. as well as assessing social determinates of health care will be discussed.

Prerequisite(s): RETH 101 , RETH 103
Corequisite(s): RETH 104 RETH 107
Pre/Corequisite(s): BIO 225

RETH 107 - Cardiopulmonary & Renal Anatomy & Physiology

5 Credit(s)
This course contains discussion of the anatomy & physiology of the pulmonary, cardiac and renal systems. Physiologic topics include mechanics of breathing, pulmonary defense mechanisms, gas diffusion, gas transport, cardiac anatomy, the cardiac electro-conductive system, circulatory system, fluid and electrolyte balance, aid-base regulation, and interaction of the pulmonary, cardiac and renal systems. This course is designed for respiratory therapy major as these sciences apply to the practice of Respiratory Care

Prerequisite(s): BIO 220 RETH 104 RETH 105
Corequisite(s): RETH 104 RETH 105
Pre/Corequisite(s): BIO 225 MATH 115

Summer Term (6 Credits)

RETH 106 - Clinical Practicum II

2 Credit(s)
In this clinical course students will become proficient in general care therapeutics modalities using various techniques and equipment. An introduction to pulmonary function testing and pulmonary rehab is included while further enhancement of patient managed care and an introduction to adult critical care in the acute care setting is made available to students.

Prerequisite(s): RETH 101, RETH 103, RETH 104, RETH 105, RETH 107
Corequisite(s): RETH 109

RETH 109 - Cardiopulmonary Diag, Rehab, & Home Care

4 Credit(s)
This course studies the methods available for determining lung function and capacity, sleep and the stages of sleep. The topics include indications for testing in pulmonary and sleep labs, equipment standards for testing, interpretation and methods for obtaining accurate results within a pulmonary functions and sleep diagnostics lab setting. Students will study rehabilitative techniques & procedures for those patients who were found to have pulmonary disease with testing.

These methods will be presented as components of a pulmonary rehab program. Patient education and therapies employed within a patients' home is also covered within this course.

Prerequisite(s): RETH 104 , RETH 105 , RETH 107
Corequisite(s): RETH 106

Second Year

Fall Semester (13 Credits)

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

RETH 201 - Critical Care I

4 Credit(s)
This course covers the function and principles of operation of adult volume and pressure ventilators; Noninvasive Positive pressure ventilators, high frequency ventilators; and continuous positive airway pressure devices will be reviewed. Concentration will be on specific controls, internal and external circuitry, monitoring systems, alarms and proper patient/ventilator interaction.

Prerequisite(s): RETH 106 , RETH 109
Corequisite(s): RETH 203 RETH 204

RETH 203 - Cardiopulmonary Pathology

3 Credit(s)
This course will discuss the etiology, diagnosis, and treatment of common pathologic processes which require respiratory therapeutics. Topics will include pulmonary diseases, cardiac diseases, neurologic diseases, and traumatic injuries which require pulmonary intervention and treatment.

Prerequisite(s): RETH 106 , RETH 109
Corequisite(s): RETH 201 RETH 204

RETH 204 - Cinical Practicum III

3 Credit(s)
For this clinical course students will rotate in areas of the hospital to emphasize the establishment and maintenance of an artificial airway. Pulmonary Function Testing lab and Rehabilitation rotations will occur. An introduction to ventilator initiation and management in the critical care settings is also included. Patient cases and procedure reviews will occur weekly for an hour during clinical lecture hour.

Prerequisite(s): RETH 104 , RETH 106
Corequisite(s): RETH 201 , RETH 203

Spring Semester (12 Credits)

AHS 125 - ACLS/PALS/NRP

3 Credit(s)
The course of Advanced cardiac life support and Pediatric life support is designed for the students in a healthcare profession who either directs or participates in the management of cardiopulmonary arrest or other cardiovascular emergencies. The Neonatal Resuscitation Program® (NRP®) course is designed to convey an evidence-based approach to care of the newborn at birth and facilitates effective team-based care for healthcare professionals who care for newborns at the time of delivery. Upon successful completion of the course, students receive a course completion card, valid for two years.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204

RETH 205 - Critical Care II

4 Credit(s)
The theory and application of mechanical ventilation techniques with emphasis on physiologic effects for neonatal, pediatric and adult patients will be discussed. Patient initiation, evaluation, maintenance and weaning techniques will be incorporated. Special emphasis is placed on cardiac testing, hemodynamic monitoring and respiratory calculations will be practiced.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): AHS 125 , RETH 206 , RETH 207

RETH 206 - Clinical Practicum IV

3 Credit(s)
The final clinical component provides the opportunity to perform all procedures practiced throughout the clinical courses in the various areas of a hospital. Students rotate in areas of the hospital to emphasize establishment and maintenance of artificial airways, ICU ventilator care, sleep diagnostic lab. An introduction to ventilator initiation and management in the neonatal setting is included. Required case and procedure review will occur during clinical lecture hour.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): AHS 125 , RETH 205 , RETH 207

RETH 207 - Respiratory Therapy Seminar

2 Credit(s)
This course reinforces the clinical education components of information gathering and decision-making related to assessment and treatment of cardiopulmonary impairment. Entry-level and advanced -level respiratory therapy comprehensive self -assessment testing will be administered. An emphasis on the professional tools and skills necessary for interviewing, testing and obtaining a position as a credentialed, licensed respiratory therapy practitioner is covered as well.

Prerequisite(s): RETH 201 , RETH 203 , RETH 204
Corequisite(s): RETH 205 , RETH 206

Total Credits (62/63)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Substance Abuse Intervention Specialist, A.A.S.

Major Code: 396

The Substance Abuse Intervention Specialist AAS prepares students to work with people and families experiencing or affected by substance abuse problems and other co-occurring behavioral or mental health issues. Students will learn about working with clients, and acquire skills needed to apply the theories used in psychology, social work, and substance use disorders to help individuals and families recover from substance abuse & addiction and prevent relapse. A 2.0 GPA is required for acceptance into this program.

This degree allows students to complete a degree quickly to prepare to work in the field of substance abuse, social work, or mental health as soon as possible.

In addition to General Education Outcomes, students successfully completing and receiving an AAS degree in Substance Abuse Intervention Specialist should be able to:

- Apply the philosophies of Alcoholic's Anonymous and Narcotics Anonymous
- Explain history, concepts, theories and strategies used in psychology & human services delivery systems.
- Explain similarities and differences among psychoactive substances and their effects on the user
- Explain issues related to the needs of different types of clients with substance use disorders, including their impact on families and communities
- Demonstrate professionalism and apply medical, legal, and discipline-based ethics in clinical settings by successfully completing an internship.
- Apply the skills, techniques, strategies, and abilities needed for assessing, treatment planning, and therapeutic communication with clients in individual or group settings
- Apply the skills and abilities needed to be objective, understanding, and empathetic toward individuals from diverse backgrounds and ability levels.

Returning students who completed certain courses (HS 100, HS 101, HS 147, HS 150, HS 200, HS 210, BIO 114, AHS 103, AHS 110, HPE 110) more than 5 years prior to entering this program will be asked to repeat the course(s) to ensure that their knowledge & skills are current in the field.

Graduates of this program can expect to be employed in substance abuse treatment facilities or other human services agencies in positions which do not require bachelor's degrees as intervention specialists, prevention specialists, peer recovery support specialists, behavior specialists, case aides or caseworkers, or as mental health or crisis intervention technicians. To become a certified addictions counselor, social worker, or similar professional, students with the associate degree will need to continue their education by earning more advanced degrees at other colleges or universities.

This project is supported by a grant from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant # T26HP394640100, "Opioid Impacted Family Support Program". This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government."

The employment outlook for these jobs currently is above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

University Transfer Options:

- Completion of this program offers students the option of transferring to the following university to complete a four-year degree:
    - West Liberty University, BS, Social Work
    - West Virginia University - BS, Social Work
    - West Virginia University - BA, Mental Health & Addiction Studies

Job Titles: Prevention Specialist, Peer Support Specialist, Family Service Worker, Direct Services Worker, Mental Health Technician

Wage and Employment Trends:

- $19,000 to $28,000 (Ziprecruiter, 2020)
- 22% growth in the next four years (SAMHSA, 2019)

CIP Code: 51.1501

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality

development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (12-13 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Math Core Requrement* 3-4 Credit(s)

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

SA 100 - Peer Recovery Support Specialist (PRSS) Ethics

1 Credit(s)
This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.

Prerequisite(s):

HS 100 , HS 210 with a grade "C" or better
Corequisite(s): None
Pre/Corequisite(s): HS 150 , SA 200

SA 200 - Substance Abuse Practicum/Clinical Experience I

1 Credit(s)
This course is both a clinical practicum experience and a seminar which requires a total of 162 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 1 hour (8 contact hours) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. Before beginning the clinical experience, students must apply to and be accepted by the agency in which the work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, and HS 210, PSYC 105 and HS 205 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include: a criminal background check and/or drug screening.
Pre/Corequisite(s): AHS 110, HPE 110, HS 150, HS 200, and PSYC 200

Summer Semester (2 Credits)

SA 201 - Substance Abuse Practicum/Clinical Experience II

2 Credit(s)
This course is the second practicum/clinical experience and seminar which requires a total of 332 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 2 hours (8 hours total) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. They are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical courses.

Prerequisite(s): AHS 110, HPE 110, HS 150, HS 200, PSYC 200 and SA 200 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include but are not limited to: a criminal background check and/or drug screening, recommendations from faculty and agency representatives.

Second Year

Fall Semester (15-16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 155 - Substance Abuse Treatment & Recovery

2 Credit(s)
This course covers different methods for assessing & treating clients with substance use & addictive disorders, including addiction-focused & family counseling, motivational interviewing, medication assisted treatment, residential & correctional facilities treatment programs, recovery homes, and self-help groups. It will also introduce students to certification, licensure and continuing education requirements for substance abuse professionals. This course alone does not qualify individuals to diagnose or treat substance use disorders.

Prerequisite(s): PSYC 105 and HS 150 .
Corequisite(s): None
Pre/Corequisite(s): None

- Science Core Requirement 3-4 Credit(s)

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

- CRJ Restricted Elective **3 Credit(s)#**

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SA 204 - SA Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar which requires a total of 200 contact hours at an appropriate social services agency working with individuals and families impacted by substance abuse. The corresponding in class meetings occur every other week for 2 hours to provide students with an opportunity to discuss the field experience with other students, and to monitor and evaluate the student's progress It is considered the "capstone" course or experience for students pursuing the AAS degree for Substance Abuse Intervention Specialists, in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 150 , HS 210, PSYC 200 and SA 201 with a "C" or better,
AND permission of the program director. Students may also be required to meet other criteria for entry into the field experience that may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.
Pre/Corequisite(s): AHS 103 and ECCE 212
**

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Total Credits (61-63)

*Students who eventually plan to tranfer should take MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

#CRJ elective should be chosen from: CRJ 245 or CRJ 246

**Before registering for the Internship/Clinical Experience III, students must apply to and be accepted by an approved social services agency. There is also a class requirement of two hours every other week.

IMPORTANT GRADUATION INFORMATION:ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education (Math/Science) Requirements

Associate in Applied Science General Education (Math/Science) Core Requirements

Surgical Technology, A.A.S.

Major Code: 257

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Admissions/Registration and Policies sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Surgical Technologists are experts in the theory and application of sterile and aseptic techniques. That, combined with knowledge of human anatomy, surgical procedures, and implementation tools and technologies, helps physicians perform invasive procedures. They provide surgical care under medical supervision, ensure operating rooms are safe, that equipment functions properly and that the operative procedure is conducted under conditions that maximize patient safety.

The laboratory portions of the program, which reinforce concepts learned in class, are held in our on-campus lab and in operating suites at area hospitals. Students have clinical experiences in hospitals and actively participate on operating room teams during surgery while clinical preceptors oversee their work.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Apply principles of asepsis and sterile technique.
- Demonstrate professionalism while providing care to diverse populations within the healthcare setting.
- Apply principles of perioperative case management to ensure safe and efficient surgical procedures.
- Demonstrate problem solving and critical thinking skills during surgical procedures.
- Successful completion of the National Certification for the Surgical Technologist.

Important information: Additional costs are associated with this program such as physicals, vaccinations, titers, drug screening and background checks. If you have ever been convicted of a felony or misdemeanor for any reason, you may be denied employment in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

Wage and Employment Trends:

- According to the Bureau of Labor Statistics, surgical technologists in West Virginia earn on an average $49,710 per year.
- West Virginia has one of the highest concentrations of surgical technologists in the country.

CIP Code: 51.0909

First Year

Fall Semester (14/15 Credits)

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115
Or

BIO 220 - AP Health Care I

4 Credit(s)
This course is the first semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field. The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions. Topics of this course include the fundamental concepts of chemistry, cytology, and histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, joints, and the special senses. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

ST 105 - Surgical Technology I

4 Credit(s)
This course delves into the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The importance of professionalism as it relates in the surgical setting is emphasized. Students gain the fundamentals of healthcare facility information for best practices. An in-depth exploration will be provided on the biological aspects of patient care. An overview of technological science concepts essential for modern healthcare applications is offered to deepen an understanding of critical technologies and the impact on patient care. A detailed examination of intraoperative case management, focusing on critical aspects of the profession is covered. This course aims to enhance the knowledge and skills necessary for effective and safe surgical practices for those pursuing careers in surgical technology.

Corequisite(s): ST 115.
Pre/Corequisite(s): BIO 114 or BIO 220

ST 115 - Clinical Practice I

4 Credit(s)
This course is designed to provide key concepts and practices essential to the practical aspect of surgical technology. The principles of professionalism and ethical behavior expected in a surgical environment is practiced. Student explore technological science concepts related to electricity and laser that are applied to modern surgical procedures. The course focuses on the importance of a sterile environment and the application of aseptic technique. The lab provides the opportunity to prepare and assist for perioperative care management throughout the surgical process. Students will gain hands-on experiences that enable the development of critical thinking and technical skills necessary to excel in the surgical technology profession.

Prerequisite(s): None
Corequisite(s): ST 105
Pre/Corequisite(s): BIO 114 or BIO 220

Spring Semester (14/15 Credits)

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.
Or

BIO 225 - AP Health Care II

4 Credit(s)
This course is the second semester of a two-semester sequence on the structure and function of the human body that systematically covers all organ systems and prepares students for a career in the health care field.The course provides students with in-depth knowledge, understanding, and ability to explain the various anatomic and physiologic aspects of the body systems in normal and common pathological conditions.Topics of this part of the course include a study of endocrine, cardiovascular, lymphatic, immune, digestive, respiratory, excretory, reproductive systems. The blood, nutrition, diet, energy balance, body fluids, body electrolyte balance, body acid-base balance, pregnancy, human development, and heredity are also examined. Students in health science programs need to check with their advisor before taking this class as it may not be an acceptable science course. This course contains both a lecture and a lab component.

Prerequisite(s): BIO 220

- Math Core Requirement (3 Credits)*

ST 150 - Surgical Technology II

4 Credit(s)
This comprehensive course curriculum covers a wide range of topics, including medical terminology, anatomy and physiology, pathophysiology, and the use of surgical equipment, instrumentation, and supplies. Students will gain a deep understanding of intraoperative skills, ensuring precision of task performance. Additionally, an in-depth coverage of various surgical specialties, such as general, obstetrics and gynecology, otorhinolaryngology, and orthopedics surgery are covered, preparing students to meet the unique demands of each field. Students are assured to be integral members of the surgical team, contributing to the success of surgical procedures and the overall well-being of patients.

Prerequisite(s): ST 105, ST 115.
Corequisite(s): ST 155.
Pre/Corequisite(s): BIO 115 or BIO 225 , Math Core Requirement

ST 155 - Clinical Practice II

4 Credit(s)
This course is designed to provide key concepts and practices essential to the practical aspect of surgical specialties that correlate with didactic portion of the program. The lab provides the opportunity to prepare and assist for perioperative care management throughout the surgical process. Students will gain hands-on experiences that enable the development of critical thinking and technical skills necessary to excel in future clinical rotation and the surgical technology profession.

Prerequisite(s): ST 115, ST 105;
Corequisite(s): ST 150.
Pre/Corequisite(s): BIO 115 , BIO 225 , MATH Core requirement

Summer Semester (3 Credits)

ST 180 - Clinical Experience

3 Credit(s)
This course marks the start of a clinical rotation at an assigned site, where students take on the role of a surgical technology scrub. Utilizing concepts learned in previous courses, students actively participate in surgical cases. Each case performed during the rotation is documented for verification. This rotation is crucial as students begin to complete the required cases needed for graduation and eligibility to sit for the National Certification Examination.

Prerequisite(s): ST 150, ST 155
Corequisite(s): None
Pre/Corequisite(s): None

Second Year

Fall Semester (15 Credits)

BIO 117 - Microbiology

4 Credit(s)
This course provides a thorough introduction to microbiology, emphasizing the structure, function, role, and diversity of microorganisms. Students will explore the evolutionary significance of microbes in shaping and maintaining the biosphere, as well as their ecological roles across various environments and their importance to human health. The topics will include medically significant microbes, such as pathogenic bacteria, viruses, fungi, and parasites. Students

will also investigate mechanisms of infection, disease transmission, and the role of the immune system. The course includes both lectures and hands-on laboratory experiences, allowing students to apply their knowledge through practical exercises and experiments.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .
Or

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ST 200 - Surgical Technology III

4 Credit(s)
This course examines the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The importance of professionalism as it relates to employable skills is emphasized. The critical aspects of intraoperative case management are covered. Students learn the progression of surgical procedures associated with the specialty. This course aims to enhance the knowledge and skills necessary of advanced surgical practices.

Prerequisite(s): ST 180
Corequisite(s): ST 210.
Pre/Corequisite(s): BIO 117 , PSYC 105 or PSYC 208

ST 210 - Clinical Practice III

4 Credit(s)
This course is designed to prepare students for the workforce by providing hands-on clinical experience in surgical technology. As a continuation of previous clinical practice courses, students will perform in the role of a student surgical technologist scrub during assigned clinical rotations. Students will apply previously learned concepts and skills in real-world settings, working under the supervision of experienced surgical professionals. Students will be assigned to various clinical settings, including hospitals and surgical centers, where they will participate in a range of surgical procedures. These rotations are designed to provide comprehensive exposure to different surgical specialties and environments.

Prerequisite(s): ST 155, ST 150.
Corequisite(s): ST 200.
Pre/Corequisite(s): BIO 117 , PSYC 105 or PSYC 208

Spring Semester (14 Credits)

SPCH 101 - Interpersonal Communication

3 Credit(s)
This course provides an introduction to the process, effects and variables involved in interpersonal communication. The primary focus is on verbal and nonverbal skills in two-person and small group interactions, particularly within an organizational environment. The major concern is with conflict management, interviewing and dyadic relationships.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
or

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ST 250 - Surgical Technology IV

4 Credit(s)
This course examines the essential healthcare sciences necessary for understanding and managing the care of surgical patients. The critical aspects of intraoperative case management are covered. Students learn the progression of surgical procedures associated with the specialty. This course aims to enhance the knowledge and skills necessary for advanced surgical practices.

Prerequisite(s): ST 200, ST 210.
Corequisite(s): ST 255, ST 260.
Pre/Corequisite(s): SPCH 101 or SPCH 105

ST 255 - Clinical Practice IV

4 Credit(s)
This course is a final rotation of hands-on experience in clinical practice. Students perform as a student surgical technology scrub role in assigned clinical rotations. Previously learned concepts and skills are applied in real-world settings, working under the supervision of experienced surgical professionals.

Prerequisite(s): ST 200, ST 210.
Corequisite(s): ST 250, ST 260
Pre/Corequisite(s): SPCH 101 or SPCH 105

ST 260 - Surgical Technology Seminar

3 Credit(s)
This course offers an in-depth review of the curriculum necessary to successfully pass the certification exam. Designed in alignment with the national board's content outline, the course provides a structured and comprehensive overview of all key topics. Students will engage with detailed material, practice questions, and exam strategies to ensure thorough preparation. By the end of the course, participants will have a solid understanding of the subject matter and the confidence to excel in the certification exam.

Prerequisite(s): ST 200 , ST 210

Corequisite(s): ST 250, ST 255
Pre/Corequisite(s): SPCH 101 or SPCH 105

Total Credits (60/62)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to the General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

*General Education Core Requirements

Associate in Applied Science General Education Requirements

Welding Technology, A.A.S.

Major Code: 238

The Welding Technology program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld plate and pipe in various processes in all positions to American Welding Society (AWS) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW), TIG welding and MIG welding. Safety, selection of proper equipment, selection of appropriate filler materials, and proper weld techniques are stressed throughout the curriculum. In addition, students will be trained in reading prints with welding symbols and will have a basic understanding of metallurgy and layout and fabrication.

The Welding Technology program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advanced standing and should confer with program faculty and/or advisors about processes to obtain advanced standing.

Upon completion of this program, graduates will be able to:

· Demonstrate safe practices in all welding activities.

· Demonstrate ability to read and apply welding prints and symbols.

· Perform basic processes of oxyacetylene welding and cutting

· Demonstrate ability to weld Fillet welds in all positions to AWS standards

· Demonstrate ability to weld Groove welds in all positions on plate and pipe to AWS standards.

· Apply basic understanding of metallurgy in performing welds and selecting appropriate processes and materials.

· Understand how to start and complete a fabrication project.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $30,000 to $80,000 for welder and $55,000 to $120,000 for Welding

supervisors. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

Job Titles: Aluminum Welder, Fabrication Welder, Fabricator, FCAW Welder, Fitter/Welder, Maintenance Welder, GMAW Welder, GTAW Welder, SMAW Welder

Wage and Employment Trends:

- Wage Range: $38,000 to $80,000 annual (Onet, 2016)
- Projected Growth 5-9% (Onet, 2016)
- Certification Options: American Welding Society

CIP Code: 480508

First Year

Fall Semester (16 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

WELD 100 - Basic Weld Inspection

1 Credit(s)
This course presents the nomenclature and procedures for basic weld inspection and identify weld discontinuities and defects.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

Spring Semester (16 Credits)

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

Second Year

Fall Semester (14 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

WELD 202 - Beginning MIG

3 Credit(s)
This course introduces students to the safety, nomenclature and set up procedures for gas and metal arc welding (MIG). Students will perform open Single-V-Groove welds on plate without backing. Students will weld in all four positions. Additional topics include wire specifications, joint design, shielding gasses, and production of beads and joints.

WELD 204 - Advanced MIG

3 Credit(s)
This course, which is a continuation of WELD 202 , students will continue to develop advanced skills in MIG welding. Students will perform welds in all four positions on plate with backing and aluminum. Welds will be testing to AWS non-destructive standards.

Pre/Corequisite(s): WELD 202

WELD 210 - Flux Core Welding

3 Credit(s)
Students will learn the safety, nomenclature, set up procedures and techniques associated with flux core arc welding. Students will weld on pads in each of the four positions. Techniques will include beads, lap joints, tee joints and butt joints.

WELD 215 - Metallurgy

2 Credit(s)
This course presents basic principles of metallurgy as they relate to welding and fabrication. Students will study properties of both ferrous and non-ferrous metals. Topics will include manufacture, weld preparation, surface preparation, heat treatment before and after welding, alloys of special steel, and classification of steels.

Spring Semester (15 Credits)

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

WELD 206 - Beginning TIG

3 Credit(s)
In this course students will be introduced to gas tungsten arc welding (GTAW or TIG) with an emphasis on safety, machine set-up, filler rods, and shielding gas identification. Students will produce beads, bead patterns and joints in all four positions. Students will perform welds on plate without backing.

WELD 208 - Advanced TIG

3 Credit(s)
In a continuation of WELD 206, students will continue to develop advanced skills in TIG welding. Students will perform welds in all four positions on plate and on pipe.

Pre/Corequisite(s): WELD 206.

WELD 220 - Layout and Fabrication

3 Credit(s)
Students will perform fit-up procedures to set up and align parts for fabrication according to blueprint design and specifications. Students will apply mathematics for layout. The course includes estimation, structural and pipe-fitting techniques, and making templates and jigs.

Prerequisite(s): WELD 112

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (61)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Transfer

Business Administration Transfer Option, A.S.

Major Code: 104

This option is designed for students preparing for transfer to a four-year institution to complete work in professional areas of accounting, banking and finance, economics, general business, management, marketing, office administration or related business professions. Students should consult with their advisor regarding requirements.

In addition to general education outcomes, students successfully completing and receiving an A.S. degree under this program will be able to:

- Implement the full accounting cycle for various types of organizations

- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

In addition to the overall competencies of the Business Administration Program, upon completion of this program graduates will be able to transfer into a baccalaureate program.

CIP Code: 52.0101

First Year

Fall Semester (16 Credits)

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

- SS - Social Science Core Requirement **3 Credit(s)**

Spring Semester (15 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

Second Year

Fall Semester (16 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

- HIST - History Core Requirement **3 Credit(s)** *
- SCI - Science Core Requirement (Life Science) **4 Credit(s)**

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (13 Credits)

ACC 123 - Principles of Accounting II

3 Credit(s)
This course is a continuation of ACC 122. The course explores basic principles underlying the procedures for accounting for plant assets and intangibles, liabilities, and corporations. Preparation of the statement of cash flows and financial statement analysis are also covered.

Prerequisite(s): ACC 122.

- HUM - Humanities Core Requirement **3 Credit(s)**
- SCI - Science Core Requirement (Physical Science) **4 Credit(s)**

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

Total Credits (60)

In addition, students who plan to transfer to West Virginia University must have at least a 2.5 GPA and should take MATH 279. However, MATH 279 is not eligible for financial aid in this program.

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Science Program listed below.

General Education Core Requirements

Associate in Science General Education Requirements

Community Education 2+2 to WLU, A.A.

Transfer to West Liberty University

Major Code: 335

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in four years.

Students successfully completing this option will receive an A.A. degree from West Virginia Northern. Upon **successfully** completing the specified credit hours at West Liberty University, they will receive a B.A. degree in Community Education. The program is designed for students who have an interest in education that is not limited to "traditional teacher education" in the classroom and/or for students who are interested in the non-profit world. The program allows students to choose from 5 different majors, including: Community Arts, Disabilities Services, Outdoor Education, Sports, Recreation and Wellness, Teaching Education and Global Education. The program trains individuals to serve as educators or facilitators in a community-based setting and/or as non-profit administrators. Many of the courses in the Community Education program include field experiences in the local community and/or community based settings.

Students are encouraged to communicate and collaborate with individuals, groups, and institutions of the community on a local, national, and even international level through networking, service learning experiences, and experiential learning. Students are trained in how to serve the community through the non-formal education of children, adults, and communities through a broad set of course work.

Students successfully completing and receiving an A.A. degree under the 2+2 Community Education program with WLU should be able to:

- Demonstrate knowledge of human development, culture, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the 2+2 Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

Students are encouraged to meet with the Community Education Program Advisor at WLU early in their program of study at WVNCC to obtain information and advising concerning the program. Consult your WVNCC advisor for further information.

Note: Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. Students with questions about this should contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (14/15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing

proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

- Elective **2 Credit(s)** ++

Spring Semester (15 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- HIST - History Core Requirement **3 Credit(s)** +

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

- Restricted Elective **3 Credit(s)** ***
- Science Core Requirement **4 Credit(s)**
- Fine Arts Core Requirement **3 Credit(s)***

Spring Semester (15 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- ENG - Literature Core Requirement **3 Credit(s)** **

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 155 - Human Relations

3 Credit(s)
This course examines psychological principles used in creating effective human relationships. Students investigate the areas of needs, values, perceptions, group dynamics and active listening.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20

hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60-61)

* Choose from ART 150 or MUS 105

+ Choose from: HIST 100, HIST 101, HIST 110, HIST 111

++ Can be any course (miminum 2 credit hours) that is not already required in the program.

** Choose from ENG 200, ENG 201, ENG 210, ENG 211

*** Choose from MGT 250 or MGT 253

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education Core Requirements

Associate in Arts General Education Core Requirements

Education: Elementary Education, A.A.S. (Transfer to West Liberty University)

Major Code: 391

Note: This program is through a transfer agreement in which a student completes an Associate's degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an A.A.S. degree from West Virginia Northern. Upon successfully completing the specified credit hours at West Liberty University, students will receive a B.A. degree in Elementary Education.

Students successfully completing and receiving an A.A.S. degree under the Elementary Education transfer agreement with WLU will be able to:

- Demonstrate knowledge of human development, developmentally appropriate practice, effects of family and culture on children, educational systems, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.

- Demonstrate critical thinking and problem-solving skills.
- Employ or utilize information access and literacy skills.
- Acquire a cultural, artistic and global perspective.
- Demonstrate professional and human relations skills.

To be admitted to the WLU program, students must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which includes direct instruction, simulations, and group discussions. It is recommended that transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English faculty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 131202

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HIST 110 - The United States to 1865

3 Credit(s)
This course surveys the history of the United States through the Civil War, stressing the origin and development of various attitudes and beliefs about the meaning of the American experience.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Spring Semester (17 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HIST 111 - The United States Since 1865

3 Credit(s)
This course surveys the history of the United States from the Civil War, emphasizing the response of Americans to a maturing technological society which challenges the resilience of traditional values and institutions.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood

environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- ENG - Literature Core Requirement* **3 Credit(s)**

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 204 - Mathematics for Elementary Teachers I

4 Credit(s)
This course is recommended for students interested in teaching in grades K-9. The topics include problem solving, algebraic thinking, sets and set operations, functions, operations with whole numbers, integers, rational numbers, decimal numbers, and elementary number theory.

Pre/Corequisite(s): Satisfactory math placement or MATH 204S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (13 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

MATH 205 - Mathematics for Elementary Teachers II

4 Credit(s)
The topics include probability, statistics, introductory geometry, geometric constructions, congruence, similarity, the Cartesian Coordinate System, solving systems of equations, measurement (English and Metric), the Pythagorean Theorem, surface area, mass, temperature, and motion geometry.

Pre/Corequisite(s): Satisfactory math placement or MATH 205S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (62)

A minimum of "C" is required in all courses to be used for transfer.

*Choose from ENG 200, ENG 201, ENG 210, or ENG 211.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: PK-5 Elementary Education, A.A.S. (Transfer to FUS)

Transfer to Franciscan University of Steubenville

Major Code: 390

Note: Under this transfer agreement, a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years.

Students successfully completing this option will receive an Associate in Appllied Science degree from West Virginia Northern. Upon successfully completing the remaining specified credit hours at Franciscan University they will receive a Bachelor of Science Degree in Education, with eligibility for the initial Ohio teaching license upon successful completion of the educator preparation program. In addition to the WVNCC courses, applicants for admission to a Franciscan University Teacher Education program must meet the following criteria:

- Submit a transcript to Franciscan University verifying an overall grade point average of 2.5.*
- Successful completion of the PRAXIS CORE (reading, mathematics, & writing); **(Note: Students must provide evidence that they have passed all parts of the PRAXIS prior to acceptance & enrollment in classes in the Teacher Preparation Program. Students who do not pass the PRAXIS CORE are not eligible for licensure).**
- Submit a written application for admission to teacher education to the Department of Teacher Preparation Programs.
- Submit two positive recommendations from faculty.
- Positive recommendation by the Education Unit faculty.

In addition to General Education Outcomes, students successfully completing and receiving an A.A.S. degree under the articulation agreement with Franciscan University's educator preparation program should be able to:

- Demonstrate knowledge of the history of the profession of education.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in education.
- Demonstrate knowledge of the major theories of human development.
- Demonstrate knowledge of the issues related to standards of the teaching profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the A.A.S. degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If a student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny the student employment or placement in certain settings, even if he or she has completed all academic requirements. If the student has ever been convicted of a felony or misdemeanor, he or she should contact the appropriate Program Director or Division Chair.

CIP Code: 131202

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** +

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics

through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (14 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

MATH 204 - Mathematics for Elementary Teachers I

4 Credit(s)
This course is recommended for students interested in teaching in grades K-9. The topics include problem solving, algebraic thinking, sets and set operations, functions, operations with whole numbers, integers, rational numbers, decimal numbers, and elementary number theory.

Pre/Corequisite(s): Satisfactory math placement or MATH 204S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (16 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young

children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.

HUM - Humanities Core (Literature) **3 Credit(s) Credits / Units:** 3

MATH 205 - Mathematics for Elementary Teachers II

4 Credit(s)

The topics include probability, statistics, introductory geometry, geometric constructions, congruence, similarity, the Cartesian Coordinate System, solving systems of equations, measurement (English and Metric), the Pythagorean Theorem, surface area, mass, temperature, and motion geometry.

Pre/Corequisite(s): Satisfactory math placement or MATH 205S and satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115 .

PSYC 218 - Exceptional Children

3 Credit(s)

This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (61)

A minimum of a "C" is required in all courses for transfer.

+ Choose from: HIST 100 or HIST 101.

*** Choose from: ENG 200, ENG 201, ENG 210, or ENG 211.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: Pre-K, K Early Intervention, A.A.S. (Transfer to West Liberty University)

Major Code: 394

Note: This program is through a transfer agreement in which a student completes an Associate's degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status,

scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an A.A.S. degree from West Virginia Northern. Upon successfully completing the specified credit hours at West Liberty University, students will receive a B.A. degree in Elementary Education: Major: Early Intervention.

Students successfully completing and receiving an A.A.S. degree under the agreement with WLU in the Education: Pre-K, K Early Intervention program with WLU will be able to:

- Demonstrate knowledge of human development, developmentally appropriate practice, effects of family and culture on children, educational systems, and exceptionalities.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Applied Science degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

To be admitted to the WLU program, students must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which includes direct instruction, simulations, and group discussions. It is recommended that transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements Students should consult with an advisor and members of the Teacher Education faculty at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 131209

First Year

Fall Semester (16 Credits)

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ECCE 212 - Child, Family, and Community

3 Credit(s)
This course examines the relationships between the young child and other members of the family unit, and the relationship between the family and the early childhood program. The focus is on the child during infancy, toddler, and preschool years. Studies include the diversity of family lifestyle and cultures.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Spring Semester (17 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15 Credits)

ECCE 220 - Language and Literacy

3 Credit(s)
This course explores the development of young children in the areas of language, including speaking, reading, and writing, and in the areas of literacy development, including vocabulary, comprehension of the rules of language, and reading comprehension. Emphasis is placed on integrating of all dimensions of literacy across early childhood environments. Applying theory and research to practical applications and best practices in teaching are explored.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- HIST - History Core **3 Credit(s)**

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the

importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (12 Credits)

ART 256 - Creative Expression in Art and Design

3 Credit(s)
This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

ECCE 214 - Child Observation and Assessment

3 Credit(s)
This course examines the skills and methods used to observe and assess children in various environments, with an emphasis on early childhood environments. An emphasis will be placed on authentic assessment practices, the appropriate use of assessment and observation strategies to document the development, play, and learning of young children. It is designed to guide parents, teachers and child care workers in observing and evaluating children in physical, cognitive, social, emotional and language areas of development. Students will need to have access to a child to use as a case study, and they will need to visit child care and educational settings during the semester.

Prerequisite(s): PSYC 105 and PSYC 210.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Total Credits (60)

A minimum of "C" is required in all courses to be used for transfer.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Arts Program listed below for acceptable core requirements.

General Education Core Requirements

Associate in Arts General Education Requirements

Education: Secondary Education, English Specialization, A.A. (Transfer to West Liberty University)

Major Code: 388

Note: This program is through a transfer agreement in which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this degree will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will received a Bachelor of Arts degree in Teacher Education (Secondary) with an English specialization.

Students successfully completing and receiving an A.A. degree under the agreement with WLU in the Teacher Education with an English specialization will be able to:

- Demonstrate knowledge of important literary works and writers and their relationship to historical and sociological events.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the concentration field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

In addition to the WVNCC courses, applicants for admission to the Teacher Education program at WLU must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which is a twelve (12) field-based experience which includes direct instruction, simulations, and group discussions. Minimum grade of "C" is required. It is recommended hat transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English fauclty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12),

including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105 or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
SS - Social Science Core Requirement*** **3 Credit(s)**

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

ENG 201 - American Literature Since the Civil War

3 Credit(s)
This course is a survey of the American writers from the Civil War to the present, focusing upon the rise of realism, naturalism and other intellectual, sociological, political and historical trends.

Prerequisite(s): ENG 101.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 200 - American Literature Through the Civil War

3 Credit(s)
This course includes a study of American writers from Colonial days to the middle of the 19th century, emphasizing major figures, literary types and movements.

Prerequisite(s): ENG 101.

- HIST - History Core Requirement** **3 Credit (3)**

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (16 Credits)

ENG 211 - English Literature Since the Eighteenth Century

3 Credit(s)
This course is a continuation of the survey begun in ENG 210, including a study of the Romantic, Victorian and Modern periods with emphasis on major figures, literary types and movements.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to

this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Total Credits (62-63)

A minimum of "C" is required for transfer.

**Choose from HIST 100, HIST 101, HIST 110, or HIST 111

***Choose from ECON 105 or SOC 125

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Education: Secondary Education, Social Sciences Specialization, A.A. (Transfer to West Liberty University)

Major Code: 389

Note: This program is through a transfer agreement in which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this degree will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will received a Bachelor of Arts degree in Teacher Education (Secondary) with a Social Sciences specialization.

Students successfully completing and receiving an A.A. degree under the agreement with WLU in the Teacher Education with a Social Sciences specialization will be able to:

- Demonstrate knowledge of the discipline in the social sciences and relevant historical, political, and sociological events.
- Demonstrate a readiness to enter a bachelor's degree program with appropriate commitment to attendance, initiative, organization and interest in the concentration field.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic and global perspective.
    - Demonstrate professional and human relations skills.

In addition to the WVNCC courses, applicants for admission to the Teacher Education program at WLU must:

- Have a 3.0 cumulative GPA or better.*
- Have earned at least a "C" in all courses to be used in transfer.
- Pass a professional skills test (Praxis I), which must be taken before the student can be admitted to Teacher Education, so it can be completed anytime after high school graduation, and/or during the students time at WVNCC, over the summer, or early in the first semester at WLU.
- Pass a criminal background check.
- Have completed a 1 credit course through WLU (EDUC 100 - Introduction to Professional Education), which is a twelve (12) field-based experience which includes direct instruction, simulations, and group discussions. Minimum grade of "C" is required. It is recommended hat transferring students plan to take this course during the summer prior to transferring to WLU if possible.
- It is recommendation that students save samples of their work from several relevant classes at WVNCC for the portfolio they must submit when they are in their final year of the bachelor's degree at WLU.
- Meet all other requirement as outlines in the student policy manual at WLU.

*Although a cumulative of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor and members of the Teacher Education and English fauclty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

Consult your WVNCC advisor for further information.

Important Information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing board, licensing agencies, which require criminal backgrounds checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic

requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECCE 100 - Foundations of Education

3 Credit(s)
This course is an introduction to the overall history, philosophy, and theory of education, with an emphasis on early childhood and elementary education. Students become familiar with various types of early childhood programs and the career opportunities they provide. The history and philosophy of education is introduced, as well as unique aspects, current trends, and quality program criteria as they apply to early childhood, elementary, and secondary. Concepts for providing developmentally appropriate practice are introduced. Differences in educational goals and approaches appropriate for young children (Pre-K through 3), and children at elementary (K-5) and secondary levels (6-12), including requirements for children with diverse needs and abilities will also be explored. Students will be required to complete 40 hours of classroom observation during this course to expand their Foundations of Education knowledge.

Pre/Corequisite(s): ENG 097 and HS 147 or PSYC 105   or PSYC 210 .

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HIST 100 - World Cultures I

3 Credit(s)
This course examines the history of Western Civilization from the Prehistoric ages to the Middle Ages. It covers the political, social, economic, intellectual and religious aspects as they developed over the centuries. This course provides an understanding of the individuals and events that shaped Western Civilization and cultures. This course investigates essential historical background to our current world and provides information regarding the early origins of our current world problems and issues.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

or

HIST 101 - World Cultures II

3 Credit(s)

This course examines the history of Western Civilization from the 1400's to the World Wars and the following Cold War. It presents the political, social, economic, intellectual and religious aspects as they evolved during these eras. This course commences with the Middle Ages and provides an understanding of the individuals and events that impacted our Western Civilization till the present. The course presents the emergence of Modern Europe and its expansion of its colonization and revival of its expanding culture.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)

This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

Spring Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)

Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

or

ART 256 - Creative Expression in Art and Design

3 Credit(s)

This course is designed as an introductory studio workshop experience in viewing, appreciating, creating, and teaching fundamentals and elements of design for teachers and other individuals who work with children. The class will review the current philosophies of teaching art to children and students of all ages, and the benefits of using artistic and creative expression to enhance the development, health, and self-esteem of children. Students will gain an understanding of and apply the elements of art and design in their creations and self-evaluations. Students will

complete a number of projects in a variety of media and will gain confidence in techniques that they will be able to pass along to their own students.

or

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (15-16 Credits)

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

HIST 110 - The United States to 1865

3 Credit(s)
This course surveys the history of the United States through the Civil War, stressing the origin and development of various attitudes and beliefs about the meaning of the American experience.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .
ENG- English Elective *3 Credit(s) **Credits / Units:** 3

Spring Semester (14 Credits)

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HIST 111 - The United States Since 1865

3 Credit(s)
This course surveys the history of the United States from the Civil War, emphasizing the response of Americans to a maturing technological society which challenges the resilience of traditional values and institutions.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

General Elective**

Total Credits (60-61)

A minimum of "C" is required for transfer.

*Choose from: ENG 200, ENG 201, ENG 210, or ENG 211

**General Elective can be choosen from any course; However SS 255 is recommended for transfer.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Pre-Engineering, A.S.

Major Code: 246

This degree is designed to prepare engineering students by building foundational engineering skills. This program is to prepare qualified students to transfer into four year engineering programs.

Pre-Engineering outcomes:

1. Apply principles of engineering, science, and mathematics to identify, formulate, and solve complex engineering problems.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Make informed judgments based on ethical and professional responsibilities in engineering situations with consideration for the impact of engineering solutions in global, economic, environmental, and societal context.
4. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
5. Draw conclusions based on developing and conducting appropriate experimentation, analysis and interpretation of data and using engineering judgment.

CIP Code 140102

Semester One (15 Credits)

CHEM 108 - General Chemistry I

4 Credit(s)
This course is the first semester of a two-semester sequence in general college chemistry. The course is a study of the metric system, scientific mathematics, atomic structure, chemical bonding, gases, solution and chemical equilibrium. This course includes both a lecture and lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 101 or MATH 108 or MATH 115

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 110 - Pre-Calculus Mathematics

5 Credit(s)
This course is an integrated approach to algebra and trigonometry preliminary to the study of calculus. The course includes sets and the real number system, relations and functions, graphs of relations and functions, polynomials, rational functions, exponential and logarithmic functions, trigonometric functions and complex numbers.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Semester Two (15 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
or

CHEM 109 - General Chemistry II

4 Credit(s)
This course is a continuation of CHEM 108 with an investigation of selected metals and nonmetals, electrochemistry, nuclear chemistry, thermodynamics, ionic equilibria, acids and bases, kinetics and an introduction to organic chemistry. The laboratory includes some semi-micro qualitative analysis as well as experiments on the above topics. This course includes both a lecture and lab component.

Prerequisite(s): CHEM 108.

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

ENGR 100 - Introduction to Engineering Applications

3 Credit(s)
Introduction to engineering degree programs. Orientation to basic problem solving of engineering applications using algebra and trigonometry.

Pre/Corequisite(s): MATH 110 or MATH 279

MATH 279 - Calculus I

5 Credit(s)
This course consists of material typically included in the first semester of a three-semester sequence in differential and integral calculus. The course includes the review of the prerequisite algebra skills, limits and continuity, the derivative of algebraic and trigonometric functions and applications of the derivative. Additional topics covered include the development and application of the differential and of the indefinite and definite integral.

Prerequisite(s): MATH 110 or with permission of instructor.

Semester Three (16 Credits)

ENGR 101 - Engineering Problem Solving I

2 Credit(s)
This course is project-based course that provides a foundation in fundamental skills needed for beginning engineering students to academically succeed and professionally prepare for challenges in a technologically changing world. Students will apply mathematics to solve engineering problems, develop team working skills, practice written and verbal communication skills, strengthen problem solving and design skills, and use a computer as a tool for analysis, design and communication.

Prerequisite(s): MATH 279
Pre/Corequisite(s): ENG 101

MATH 280 - Calculus II

4 Credit(s)
This course is a continuation of MATH 279 with a continued study of the applications of the definite integral. Additional topics covered include logarithmic, exponential, trigonometric and hyperbolic functions; techniques of integration; polar coordinates; the conic sections and indeterminate forms.

Prerequisite(s): MATH 279.

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .
or

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PHYS 120 - Calculus-Based Physics I

4 Credit(s)
This is a calculus-based introductory physics course in mechanics for science, mathematics, and engineering students. Topics include kinematics, dynamics, momentum, energy, and applications of Newton's Laws. This course contains both a lecture and lab component.

Pre/Corequisite(s): MATH 279

- Humanities Core **3 Credit(s)**

Semester Four (16 Credits)

CIT 222 - Technology Ethics

3 Credit(s)
In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber landscape, along with other topics relating to the information technology cyber security fields.

Prerequisite(s):

CIT 232 - Introduction to Programming Logic

3 Credit(s)
This course introduces students to a high level programming language and the logic and control structures that are the foundations of computer programming. Variables, assignment, subroutines, data types and basic object oriented programming will be explored and used to develop simple applications.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENGR 102 - Engineering Problem Solving II

3 Credit(s)
This is a project-based course to prepare students for an engineering career. Students will apply mathematics to solve engineering problems, acquire and refine team working skills, practice written and verbal communication skills, enhance problem solving and design skills, and use a computer as a tool for analysis, modeling, design, and communication. This is the second part of a two course series.

Prerequisite(s): ENGR 101 and MATH 279

MATH 281 - Calculus III

4 Credit(s)
This course is a continuation of MATH 280. Topics covered include infinite series, vector calculus and differential calculus of several variables and multiple integrations.

Prerequisite(s): MATH 280.
or

PHYS 121 - Calculus-Based Physics II

4 Credit(s)
Physics 121 is the second semester of a calculus-based physics sequence for science, mathematics, and engineering students. The course covers the nature of waves and electrical and magnetic phenomena, including concepts of electrical charges, electric fields and the application of Gauss' Law, electric potential, conductors and insulators, currents, basic circuits.

Prerequisite(s): PHYS 120 and MATH 279
Pre/Corequisite(s): MATH 280

Total Credits (62)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

NOTE: A grade of "C" or higher is required in all courses for transfer to some institutions.

*ECON 105 is required for the Industrial Engineering Track at WVU.

General Education Core Requirements

Associate in Science General Education Core Requirements

Psychology 2+2 to WU, A.A.

Transfer to Wheeling University

Major Code: 165

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at one institution and finishes a Bachelor degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in 2 (Associate) or 4 (Bachelor) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in 4 years.

Further, 2+2 articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under a 2+2 program.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WU, they will receive a Bachelor of Science Degree in Psychology.

In addition to the WVNCC courses, applicants for admission to WU need to have an overall grade point average of 2.3 and meet other admissions requirements of WU to be eligible under the 2+2 program.*

In addition to General Education Outcomes, students successfully completing and receiving an A.A. degree under the 2+2 agreement with WU Psychology should be able to:

- Demonstrate knowledge of the history of the field of psychology and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in psychology.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the psychology profession.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of psychological services.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.

Students are encouraged to meet with a member of the Psychology faculty at WU early in their program of study at WVNCC to obtain information and counseling concerning the Psychology program.

Important Note: Students should be aware that the Bachelor of Arts degree in Psychology from WU does not qualify students for any kind of licensure. Students who are interested in becoming licensed social workers, licensed psychologists, or licensed professional counselors have to complete a Bachelor and/or Master's degree in a field that is license eligible. Consult with an academic advisor for questions related to this note.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST - History Core Requirement **3 Credit(s)** +

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- Elective **3 Credit(s)** ++

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

or

BIO 113 - Animal Biology

4 Credit(s)
This course is an introduction to the functioning of organ systems including the problems being solved by the system. Both vertebrate and invertebrate animals are considered. Animal development and evolution are included. Animal diversity, evolutionary relationships and the role of animals in their environments are emphasized. This course includes

both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101. BIO 110 is not a prerequisite for this course.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- HUM - Fine Arts Core requirement **3 Credit(s)** **

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- Elective **3 Credit(s)** ++

Spring Semester (15 Credits)

- HUM - Humanities Literature core requirement **3 Credit(s)** ***

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental

anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

PSYC 218 - Exceptional Children

3 Credit(s)
This course studies exceptional children, including the mentally impaired, visually impaired, orthopedically disabled, learning disabled, behaviorally disabled and gifted. Intellectual, physical, social and emotional factors are examined. Meeting the needs of exceptional children at home and at school are emphasized. Students declared as an ECCE or Education major will be required to complete 40 hours of public school classroom observation during this course to expand their knowledge. Students who are not declared as an ECCE or Education major will be required to complete 20 hours of classroom observation.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 255 - The Global Community

3 Credit(s)
This course is an introduction to intercultural communication; to global problems associated with such topics as security, trade and the environment; to world geography; and to recent changes in the political and economic systems of Europe. Students should take this course in the second year of their program.

Prerequisite(s): ENG 101 or ENG 115.

Total Credits (62)

* Minimum grade of "B" required for this course. For all other transfer courses, a minimum grade of "C" is required.

** Choose from: ART 150 or MUS 105.

*** Choose from: ENG 200, ENG 201, ENG 210, or ENG 211.

+ Choose from: HIST 100 or HIST 101

++ Although electives may be chosen from any three-credit course, recommended electives include: CIT 117, HS 147, HS 150, HS 210, or PSYC 155.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Psychology with Social Work, A.A. (Transfer to West Liberty University)

Major Code: 345

Note: This program is through a transfer agreement in which a student completes an Associate's degree at one institution and finishes a Bachelor's degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in two (Associate's) or four (Bachelor's) years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Important Note: Students should be aware that the Bachelor of Sciences degree in Psychology with a Social Work minor from WLU does not qualify students for any kind of licensure. Students who are interested in becoming licensed psychologists, or licensed professional counselors have to complete a Bachelor's and Master's degree in a field that is license eligible at the Master's degree level. Consult with an academic advisor for questions related to this note.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the additional credit hours required at WLU, they will receive a Bachelor's of Science Degree in Psychology with a Social Work minor.

In addition to the WVNCC courses, applicants for admission to WLU need to have an overall grade point average of 2.0 and meet other program admissions requirements of WLU to be eligible for this program. Students must also complete a separate application for the Department of Psychology and fulfill other program admissions requirements. Students should consult with an advisor and members of the psychology faculty at the transfer institution to check on this and other requirements for admission to the baccalaureate program.*

Students successfully completing and receiving an AA degree under this agreement with WLU in Psychology should be able to:

- Demonstrate knowledge of the history of the psychology and social work profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in psychology and social work.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the psychology and social work professions.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize information access and literacy skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the Program Director.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECON 105 - Principles of Microeconomics

3 Credit(s)
This course covers the major areas of modern economic theory and governmental policies. It also covers laws of supply and demand, product pricing, monopolistic competition, and extensive use of graphs to include creation and interpretations of data points.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)***

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- HUM - Humanities Restricted Elective **3 Credit(s)****

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Total Credits (62)

*Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

**Choose from: ART 150 or MUS 105

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work 2+2 to FUS, A.A.

Transfer to Franciscan University of Steubenville

Major Code: 392

Note: This is a transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete this degree in two (Associate's) or four (Bachelor's) years. It does not imply a guarantee that a student will be able to complete all requirements in four years.

Students completing this option will receive an Associate of Arts degree from West Virginia Northern. Upon being accepted to, and successfully completing the additonal required credit hours at Franciscan University of Steubenville, they will receive a Bachelor Degree in Social Work (B.S.W.). Some of the 60 credit hours from WVNCC will transfer as equivalent courses, with the rest transferring as general electives.

In addition to the WVNCC courses, applicants for admission to FUS need to have an overall grade point average of 2.0 and meet other program admissions requirements of Franciscan University to be eligible under this program. Students must also make separate application to the Department of Social Work and fulfill other program admissions requirements.*

In addition to General Education Outcomes, students successfully completing and receiving and A.A. degree under the articulation agreement with Franciscan University's School of Social Work should be able to:

- Demonstrate knowledge of the history of the social work profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the social work profession.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of social services.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate attendance, initiative, organization, and interest in the profession.

To be considered for acceptance into the Social Work program at FUS, the student must, at the end of their sophomore year, apply for formal admission into the Social Work program in addition to applying for general admission to FUS. The prospective student must:

- Complete the application for admission to the Social Work program at FUS.
- Submit a resume.

- Submit two letters of reference.
- Complete a personal interview with a program faculty member.
- Fulfill any additional admissions requirements of FUS.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students, may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair at WVNCC or FUS.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- HIST requirement **3 Credit(s)+**

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Spring Semester (15 Credits)

- ENG literature requirement **3 Credit(s) ***

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- PSYC/HS elective **3 Credit(s) #**

Total Credits (62)

*Choose from ENG 200, ENG 201, ENG 210, or ENG 211

+Choost from HIST 100 or HIST 101

#Choose from HS 101, PSYC 200, PSYC 210, or PSYC 218

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work 2+2 to Ohio University, A.A. (Financial Aid Eligibility Pending)

Transfer to Ohio University Eastern

Major Code: 399

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at one institution and finishes a Bachelor degree at another institution. Due to individual student factors, part-time or full-time status, need for developmental education coursework, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in 2 (Associate) or 4 (Bachelor) years. The term "2+2" does not imply a guarantee that a student will be able to complete all requirements in 4 years.

Further, 2+2 articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under a 2+2 program.

Students successfully completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon acceptance and successfully completing the remaining specified credit hours at Ohio University Eastern, they will receive a Bachelor in Social Work (B.S.W.) Degree, which produces graduates who are well prepared to enter the work force as generalist social work practitioners. Applicants for admission to Ohio University Eastern's social work program must meet the following criteria:

- Student has completed the Associate degree at WVNCC
- Submit a transcript to OUE verifying an overall grade point average with a minimum of 2.0. The Social Work Department requires a 2.5 in the major*Contact OUE's Social Work Program director and obtain additional forms and instruction for admission to the Social Work program early in their program at WVNCC
- Submit at least one or two recommendation forms by a current or past faculty member or employer
- Have completed a minimum of 20 hours of volunteer or paid work experience in the area of social work
- Complete and submit a written personal essay
- Complete and submit an application to the Social Work Program at OUE
- Schedule and complete an interview with the Social Work Program Director at OUE

Students successfully completing and receiving and A.A. degree under the articulation agreement with Ohio University Eastern's School of Social Work should be able to:

• Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems;

• Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/ human services and apply basic skills related to general education curriculum requirements for the Social Work A.A. degree;

• Utilize critical thinking skills;

• Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ART 150 - Art Appreciation

3 Credit(s)
Art Appreciation will introduce students to the visual arts and the variety of art mediums and techniques used to create two- and three-dimensional works of art intertwined with famous works throughout history. The purpose of this course is to build a context for understanding the arts: historically, socially, narratively, politically and scientifically with the intention of making art meaningful to the student's everyday life. Students will explore and analyze influential works of art to gain an understanding of the arts as a method of communication and expression. While reflecting upon and assessing the characteristics and quality of art, students will develop, explore and express their personal aesthetics through research projects, class discussions, and writing assignments.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

+++

PSYC 105 - Introduction to Psychology

3 Credit(s)

This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

+++

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)

This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)

The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

+++

ENG 102 - College Composition II

3 Credit(s)

This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

PHIL 200 - Introduction to Philosophy

3 Credit(s)

This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.
+++

Second Year

Fall Semester (15 Credits)

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097
+++

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 210 - Child Development

3 Credit(s)
This course will explore the milestones that children typically achieve by ages of 6-12, with particular emphasis on the early childhood years (2-6). This course will give a working definition of child development and let educators investigate appropriate practices that impact the caring and teaching of young children. The principles of child development that are emphasized include language acquisition, creative expression, physical, cognitive, and social/emotional development. Educators will learn from the influences of genetic and environmental factors, the importance of the learning environment and the importance of intentional planning, and to build positive, supportive relationships with children.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.
+++

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (14 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible

causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115
+++

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
+++

Total Credits (60)

+++Ohio University - Eastern requires a "C" or better in these courses and reserves the right to evaluate whetehr these WVNCC courses meet all outcomes for equivalent courses in a major.

Social Work 2+2 to WVU, A.A.

Transfer to West Virginia University

Major Code: 393

Note: This is a 2+2 transfer agreement through which a student completes an Associate degree at WVNCC and finishes a Bachelor's degree at another institution. Because of individual student factors, part-time or full-time status, need for supplemental coursework, scheduling and availability of courses, or other factors, this agreement does not imply a guarantee that a student will be able to complete all requirements in four years.

Students completing this option will receive an Associate of Arts degree from West Virginia Northern. Upon being accepted and successfully completing the specified number of credit hours at West Virginia University, they will receive a Bachelor Degree in Social Work (B.S.W.). The majority of credit hours will transfer as equivalent courses, with the rest transferring as general electives.

In addition to the WVNCC courses, applicants for admission to WVU need to have an overall grade point average of 2.5*, 100 hours of documented relevant volunteer or work experience, submit a written personal statement and at least one letter of reference. Qualifying students will compete with other WVU students and transfers, and students must

make application to WVU's office of admissions and the B.S.W. Program Coordinator no later than January 31 of the year they plan to matriculate to WVU.

Students successfully completing and receiving an A.A. degree under this 2+2 transfer agreement with West Virginia University's School of Social Work should be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/human services.
- Demonstrate knowledge of the major theories of psychology and human development.
- Demonstrate knowledge of the issues related to the ethical standards of the social work/human services professions.
- Demonstrate knowledge of the issues related to the needs and problems of different client populations.
- Demonstrate knowledge of how social, cultural, family, and individual factors influence needs and affect the delivery of social work/human services.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Social Work A.A. transfer degree.
- Apply knowledge and basic skills related to therapeutic communication and relationships in social work.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Program Director or Division Chair.

CIP Code: 240101

First Year

Fall Semester (15 Credits)

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

Spring Semester (16-17 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

- HUM - Humanities requirement **3 Credit(s)** ***

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- SCI - Science Core Requirement **4 Credit(s)** **

Second Year

Fall Semester (16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

- SCI - Science Core Requirement **4 Credit(s)** **
- Restricted Elective **3 Credit(s) #**

Spring Semester (13 Credits)

- HIST - History Requirement **3 Credit(s)+**

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Restricted Elective **3 Credit(s) #**
- Elective **1 Credit(s) ##**

Total Credits (60-61)

** Choose from: BIO 110, CHEM 108, CHEM 109, PHYS 104 or PHYS 105.

*** Choose from: ART 150 or MUS 105

+ Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

Restricted electives: choose from HS 101, HS 150, HS 200, or SS 207 (SS 207 fulfills a minority studies requirement at WVU.)

Elective can be chosen from any college-level course (100 level and above)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Social Work, A.A. (Transfer to West Liberty University)

Major Code: 346

Note: This program is through a transfer agreement in which a student completes an Associate's degree at one institution and finishes a Bachelor's degree at another institution. Due to individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors, all students may not be able to complete these degrees in two (Associate's) or four (Bachelor's) years. There is no guarantee that a student will be able to complete all requirements in four years.

Further, this articulation agreement contains very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not be considered or approved.

Students successfully completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon successfully completing the additional credit hours required at WLU, they will receive a Bachelor of Social Work (BSW) degree, and may be eligible to sit for the Social Work licensure exam.

Students successfully completing and receiving an A.A. degree under the transfer agreement with West Liberty University's School of Social Work will be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of it's various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/human services.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization, and interest in the profession.
- Demonstrate adequate knowledge and skills related to general education curriculum requirements for the Associate in Arts degree, including the ability to:
    - Communicate effectively in oral and written formats.
    - Demonstrate critical thinking and problem-solving skills.
    - Employ or utilize access and literacy skills.
    - Acquire a cultural, artistic, and global perspective.
    - Demonstrate professional and human relations skills.
    - Utilize critical thinking skills.

In addition to the WVNCC courses, applicants for admission to WLU need to have an overall grade point average of 2.5 and meet other program admissions requirements of WLU to be eligible for admission under the transfer

program. Students must also complete a separate application for the Department of Social Work and fulfill other program admission requirements (below). Students are encourage to meet with a member of the Social Work faculty at WLU early in their program of study at WVNCC to obtain information and counseling concerning transferring to the BSW program.*

Applicants for admission to West Liberty University's school work program must also meet the following criteria:

- Submit a transcript to WLU verifying an overall grade point average with a minimum of 2.0. The Social Work Department requires a 2.5 in the major.
- Contact WLU's Social Work Program and obtain WLU's Social Work Student Program Manual, which will provide additional forms and instruction for admission to the Social Work program.
- Submit at least one recommendation form by a current or past faculty member or employer.
- Complete and submit a written personal statement entitles "Why I Want to be a Social Worker", as outlined in WLU's Social Work Program Manual.
- Complete and submit an application to the Social Work Program at WLU.
- Schedule and complete an interview with the Social Work Program Director at WLU.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

CIP Code: 440701

First Year

Fall Semester (15 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

- HUM - Humanities Core Requirement (Fine Arts) **3 Credit(s)***

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (15 Credits)

ENG 102 - College Composition II

3 Credit(s)
This course is a continuation of ENG 101. Students will further develop writing skills through composition of essays that analyze complex texts and offer effectively supported arguments. Through assignments, both written and oral, students will develop communication skills. The course will emphasize mastery of research skills with a focus on evaluation of sources and accurate citation.

Prerequisite(s): ENG 101.

GEOG 205 - World Geography

3 Credit(s)
This course focuses on world distribution of the various elements of the natural environment and human adjustment to this distribution as well as resultant changes in politics, cultures and economies.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

or

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

PHIL 200 - Introduction to Philosophy

3 Credit(s)
This course is a critical examination of basic philosophical problems in metaphysics, epistemology, ethics and philosophy of religion.

Prerequisite(s): ENG 101 or permission of instructor.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Second Year

Fall Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as

distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (15 Credits)

- HIST - History Core Requirement **3 Credit(s)****

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

MATH 210 - Introduction to Statistics

3 Credit(s)
This course is an introduction to the mathematical principles underlying statistical techniques for application in fields of economics, business, education and the sciences. Course topics covered include basic probability and statistics with emphasis on methods of gathering data, measures of central tendency, variability, correlation, graphical analysis, and hypothesis testing.

Prerequisite(s): Satisfactory math placement or MATH 101.
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115 .

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

Total Credits (61)

*Choose from ART 150 or MUS 105

** Choose from HIST 100, HIST 101, HIST 110, or HIST 111

West Liberty University requires a "C" or better in all transfer courses and reserves the right to evaluate whether WVNCC courses meet all outcomes for equivalent courses in a major.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See with your advisor to determine if you have met this requirement.

Social Work/Pre-Social Work Transfer to BC, A.A.

Transfer to Bethany College

Major Code: 167

Note: This articulation transfer agreement allows a student to complete an associate degree at WVNCC and finish their Bachelor's degree at Bethany College. Individual student factors, part-time or full-time status, scheduling and availability of courses, or other factors may affect the time it will take a particular student to complete all requirements.

The articulation agreements contain very specific requirements which have been agreed upon and approved by the administration and faculty at both institutions. Because of this, petitions for course substitutions will not usually be considered or approved to allow a student to graduate under an articulation agreement program.

Students completing this option will receive an Associate in Arts degree from West Virginia Northern. Upon completing the remaining specified credit hours at Bethany College, they will receive a Bachelor in Social Work (B.S.W.) Degree. In addition to the WVNCC courses, applicants for admission to Bethany's social work program must meet the following criteria:

1. Submit a transcript to Bethany College verifying an overall grade point average of 2.0.*
2. Obtain Bethany College's Social Work Student Handbook
3. Submit an application and all related documents to the Social Work Program Director by May 1
4. Submit at least one recommendation form by a current or past faculty member or employer
5. Complete and submit a criminal background check
6. Complete and submit a written personal statement entitled, "Why I Want to be a Social Worker"
7. Provide proof of completion of a 50-hour service learning experience (the WVNCC Human Services internship will fulfill this requirement)
8. Schedule and complete an interview with the Social Work Program Director at Bethany College

In addition to General Education Outcomes, students successfully completing and receiving and A.A. degree under the articulation agreement with Bethany College's School of Social Work should be able to:

- Demonstrate knowledge of the history of the "human services/social work" profession and the evolution of its various delivery systems.
- Demonstrate knowledge of the basic concepts, theories, and strategies used in social work/ human services and apply basic skills related to general education curriculum requirements for the Social Work A.A. degree.
- Utilize critical thinking skills.
- Demonstrate a readiness to enter a bachelor degree program with appropriate commitment to attendance, initiative, organization and interest in the profession.

*Although a cumulative GPA of 2.0 meets requirements for graduation at WVNCC, students who do not meet the GPA (or other special) requirements at the transfer institution for admission to this baccalaureate program may not be admitted to the program until they are able to meet those requirements. Students should consult with an advisor at the transfer institution early in their program to check on this, and other requirements for admission to the baccalaureate program.

Important information: If a prospective student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. If a student has ever been convicted of a felony or misdemeanor, he/she should contact the appropriate Program Director or Division Chair.

CIP Code: 240199

First Year

Fall Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

HPE 105 - Personal Fitness

1 Credit(s)
This course instructs students in the concepts, techniques and methods of personal fitness, stressing the effects of nutrition, weight control and exercise. Demonstration and practice in exercise appropriate for a variety of health conditions are included. Course is graded on a credit/no credit basis.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

MUS 105 - Appreciation of Music

3 Credit(s)
This course provides an introduction to musical terminology and significant music compositions of various styles and periods with emphasis upon intelligent listening habits and assigned listening.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

SPCH 105 - Fundamentals of Speech Communication

3 Credit(s)
This course includes a study of the elements of oral communication and practice in organizing and delivering short speeches. Emphasis is on the development of effective communication skills and self-confidence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

Spring Semester (16 Credits)

BIO 110 - Principles of Biology

4 Credit(s)
The focus of this course is placed on fundamental principles of science and biology such as the scientific method, cell theory, gene theory, and evolution. Selected topics of basic chemistry, life diversity, and ecology are also discussed during the course. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

PSYC 208 - Developmental Psychology

3 Credit(s)
This course examines the significance of physiological, sociological and psychological forces as they influence the human organism throughout the life cycle. It also looks at some of the problems involved in critical phases throughout the developmental sequence.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

SOC 125 - Introduction to Sociology

3 Credit(s)
This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115.

- HIST Core Requirement **3 Credit(s)** **
- Elective **3 Credit(s)**

Second Year

Fall Semester (15/16 Credits)

HS 147 - Understanding Human Diversity

3 Credit(s)
This course examines issues surrounding human diversity, understanding and appreciating differences and exploring the impact that students' values and attitudes have on their interactions with individuals from various groups as distinguished by race, ethnicity, gender or gender identity, LGBTQ orientation, social class, religion, and subculture. The focus is on increasing students' awareness of the impact of diversity on individual development and frame of reference and on the impact that their own values and backgrounds have on their responses and interactions with others, especially as applied to the role of "professional helper."

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping, documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

- MATH - Mathematics Core Requirement **3(4) Credit(s)** *

POLS 102 - American National Government and Politics

3 Credit(s)
This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressionalpresidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

SS 207 - West Virginia and the Appalachian Subculture

3 Credit(s)
This course examines the interaction of physical and personal factors which have shaped the ways of life of West Virginia's citizens. The course treats history, government, the economy, religious and educational attitudes and other societal attributes as part of the regional subculture.

Spring Semester (14 Credits)

GSC 100 - Science in the Contemporary World

4 Credit(s)
This course gives students an introduction to various principles of physical sciences (physics, energy, chemistry, geology and astronomy) as they relate to the environment and environmental concerns. It also introduces them to critical thinking and focuses on the methodologies of scientists and the role of science and scientists in society. This course includes both a lecture and a lab component.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and satisfactory math placement test or any college level math.

HPE 100 - General Program in Physical Education

1 Credit(s)
This course provides instruction and practice in the skills needed for participation in selected lifetime sports or for maintaining physical fitness. Class schedules will indicate class activities. Course is graded on a credit/no credit basis.

or

HPE 101 - General Program in Physical Education

1 Credit(s)
This course provides instruction and practice in the skills needed for participation in selected lifetime sports or for maintaining physical fitness. Class schedules will indicate class activities. Course is graded on a credit/no credit basis.

HS 200 - Social Welfare Institutions

3 Credit(s)
This course examines the historical development of social welfare institutions in the United States; the organization, administration and funding of these institutions and the effect of political decisions on social policy.

Prerequisite(s): HS 100 or permission of instructor;
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

HS 208 - HS Field Experience (Internship)

3 Credit(s)
This course is both a field experience and a seminar that requires a total of 200 contact hours at an appropriate social services agency. It is considered the "capstone" course or experience for human services students in which they are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical/human services courses. Before beginning the field experience, students must apply to and be accepted by the agency in which the field work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, HS 205, HS 210, with a "C" or better, AND permission of a program instructor. Students may also be required to meet other criteria for entry into the field experience thay may include: a criminal background check and/or drug screening, recommendations, and a personal interview with a representative of the field experience agency to demonstrate that they possess the knowledge, skills, and abilities necessary to be successful in their field experience.

- HUM - Humanities Core Requirement **3 Credit(s)** ***

Total Credits (61-62)

* Choose from: MATH 108 or MATH 210.

** Choose from: HIST 100, HIST 101, HIST 110, or HIST 111

*** Choose from: ENG 200, ENG 201, ENG 210, ENG 211, ENG 225, or ENG 226

NOTEL Bethany College requires a "C" or better in all courses and reserves the right to evaluate whether these WVNCC courses meet all outcomes for equivalent courses in a major. Recommended courses for additional transfer credits include, but are not limited to: CRJ 104, CRJ 110, CRJ 201, CRJ 220, CRJ 225, CRJ 245, HS 150, PHIL 200, PSYC 200, PSYC 218.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Certificate

Air Conditioning, C.A.S.

Major Code: 220

This is a program designed to provide the technical knowledge and skills required of persons employed in the air conditioning industry. Students completing the program will be able to find employment in the areas of residential and commercial air conditioning, installation, maintenance and service.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

1. Demonstrate scientific and engineering principles to cooling processes.

2. Create an estimate for a customer for a residential installation.

3. Plan and design piping projects.

4. Design a proper duct system.

5. Install comfort cooling equipment.

CIP CODE: 15.0501

Fall Semester (15 credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat. Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

RAH 102 - Refrigeration Controls

3 Credit(s)
This course is an introduction to controls of refrigeration, heating and cooling systems. Students will become familiar with the mechanical and electrical components used in air conditioning and refrigeration systems to create the desired operation of these systems. The students will be introduced to basic electrical materials and components. They will learn schematic reading, and component identification of basic electrical items. The students will also become familiar with basic electronics and simple microproccesors. This course also introduces basic motors and some controls of those motors pertaining to Refrigeration and Air Conditioning systems. The final parts of the class will give an overview of mechanical and electrical control and protection devices as well as refrigerant flow components including valves and regulating devices. This course is meant to be an introduction and will be assessed at the introductory level.

RAH 110 - HVACR Piping Skills

3 Credit(s)
This course is an introduction course to HVAC/R field. The beginning of the course will introduce the career pathways. The student will be required to do a resume and start their path in this field. The students will cover the safety aspects of this field with a focus on basic safety. The students will also focus on the customer relations in this career pathway. The next portions of this class will focus on the multitude of tools that we use in this career field. The last portion of the class will focus on the physical cutting, fitting and joining of various types of copper, steel, and plastic pipe and tubing.

Spring Semester (15 credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

RAH 209 - Forced Air Systems/Duct Layout

3 Credit(s)
This is a course in both design and fabrication of forced air systems. Students will calculate heating and cooling loads and use that information to design properly sized duct systems. Students will fabricate and install sheet metal duct systems and learn to use sheet metal tools to create duct and fittings.

Prerequisite(s): RAH 100

RAH 235 - Comfort Cooling

3 Credit(s)
The course introduces and reinforces topics in residential and commercial air conditioning. Topics to be covered will include types of air conditioners, split system air conditioners, commercial system overview, humidity control, thermostats, basics of energy management and conservation, as well as cooling loads for a structure. This course has many chapters and is full of a lot of new concepts for the student.

Prerequisite(s): RAH 100
Corequisite(s): None
Pre/Corequisite(s): None

Total: 30 credits

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Compressor Mechanic, C.A.S.

Financial aid eligibility pending

Major Code: 350

This program trains students to become Compressor Mechanics in the natural gas industry and other related industries. Students in this program will learn to troubleshoot, repair and maintain natural gas compressors.

1. Practice conventional industrial safety and communication
2. Perform compressor troubleshooting, repair, maintenance and operation
3. Explain natural gas compressor operating principles
4. Apply principles of mechanical, hydraulic, pneumatic and electrical systems to natural gas compressors and related equipment

CIP Code 47.0303

Fall Semester (15 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

CMEC 101 Basic Engine Operations **Credits / Units:** 3

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15-16 Credits)

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CMEC 102 Intro to Gas Compressor Maint. **Credits / Units:** 3

Choose

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

Or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

Or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Total Credits (30-31)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Computer Information Technology A+ Computer Repair, C.A.S.

Major Code: 355

This program will provide students with short-term training to obtaining entry-level positions in computer and/or business offices. Graduates can obtain entry-level employment in a variety of firms that require technical computer repair and services.

Students in the Computer Information Technology, CAS A+ Computer Repair option will receive hands-on training using Windows, computer hardware upgrading, and network installation.

Upon completion of this program, graduates will be able to:

- Apply features and commands of various operating systems.
- Apply Learn the fundamentals of networks.
- Use Learn the basic operating system functions of Linux.
- Troubleshoot computer problems related to disks and files accurately.
- Perform a network installation and interface of hardware components.
- Apply Learn principles of building, repairing, and upgrading computers.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Computer repair technician, PC operator, Helpdesk technician, End-user support specialist

Wage and Employment Trends:

- $29.000 Annual (Onet, 2018)
- Certification Options: Microsoft Office Specialist, COMPTIA A+, COMPTIA N+, COMPTIA LINUX

CIP Code: 110103

Fall Semester (15 Credits)

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 202 - Computer Support - Helpdesk/Applications

3 Credit(s)
This course is designed to introduce students to real world help desk scenarios and help them understand the operations of a help desk along with roles and responsibilities of a helpdesk personnel by conducting mock drill sessions in a practical helpdesk setting which will give experience to the students and prepare them to succeed as help desk professionals, developing skills required to provide effective customer support.This course is designed for information workers who are using or will use Office 365. This course will provide students with the knowledge and skills to efficiently use Office 365 on a day-to-day basis. Students will learn how to use Outlook Online, Skype for Business, OneDrive for Business, SharePoint Online, and OneNote. At the end of this course students will be able to effectively navigate and make use of all the features of Office 365.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Spring Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations, operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

CIT 220 - Unix/Linux

3 Credit(s)
This course focuses on setup and administration tasks for computers using Unix and/or Linux operating systems.
MATH - Mathematics Core Requirement **3 Credits(s)**

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Computer Information Technology, Microsoft Applications, C.A.S.

Major Code: 360

This program will provide students with short-term training to obtain entry-level positions in computer and/or business offices.

Students in the Microsoft Applications, C.A.S, will receive hands-on training using Excel, PowerPoint, Word and Publisher. Occupations available for students completing program requirements include the following: software applications user, help desk technician and end user support. Graduates can obtain entry-level employment in a variety of firms that require an expertise in using Microsoft applications. The program also prepares the students for the MOS Certification exams.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

In addition to General Education Outcomes, transfer students should be able to:

- Use and apply features and commands of various operating systems.
- Develop complex spreadsheets with Excel.
- Develop presentations with PowerPoint.
- Develop documents in Publisher.
- Develop documents in Word.
- Troubleshoot Microsoft Office problems.

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the college catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Job Titles: Applications Developer, Computer Consultant, Information Technology, Telecommunications Analyst, Help Desk

Wage and Employment Trends:

- $29,000 Annual (Onet, 2018)
- Certification Options: Microsoft Office Specialist

CIP Code: 110103

Fall Semester (15 Credits)

CIT 101 - Introduction to Cyber Security

3 Credit(s)
In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network defense, passwords, firewalls, VPNs and intrusion detection are covered.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 165 - PowerPoint with AI

3 Credit(s)
This course prepares students to design and deliver polished, visually effective business and technology focused presentations using Microsoft PowerPoint, with an emphasis on integrating AI-driven tools to support the presentations. Students will develop the skills needed to create, format, and enhance presentation materials including generating and refining AI-assisted content for small business environments. Topics covered include creating, formatting, and designing PowerPoint presentations manually and with AI assistance.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (15 Credits)

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

CIT 112 - Access

3 Credit(s)
This course comprehensively covers all of Microsoft Access. Students will create, use, manage, and maintain databases. This course will also prepare students for the Microsoft Office Specialist ACCESS (730) test.

CIT Elective (any eligible CIT class except CIT 117) **Credits / Units:** 3

Choose

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

Math - Mathematics Core Requirements **Credits / Units:** 3

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met

this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Culinary Arts, C.A.S.

Major Code: 323

This program is designed to provide a certificate of achievement in food preparation with one year of training. It emphasizes basic techniques of food preparation. Hands-on experience in the laboratory classes is included to build a foundation of basic cooking skills and commercial food sanitation skills. Upon completion of the program students are prepared to obtain positions as prep cooks and other entry level kitchen positions in restaurants, fast food establishments, hotels and other food service operations. The certificate program prepares students for a seamless transition to the Culinary Arts, Associate in Applied Science program.

In addition to General Education Outcomes, upon completion the student should be able to:

- Prepare all types of meals using safe, sanitary and nutritional skills
- Use correct knife skills, kitchen equipment and kitchen related appliances
- Demonstrate customer service techniques
- Demonstrate skills in financial planning, menu planning
- Explain key laws and regulations for food service establishments

The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

Uniforms are required for CART 131, CART 145, CART 151, and CART 159.

Job Titles: Prep cook and other entry-level kitchen positions in restaurants, fast food establishments, hotels and other food-service operations.

Wage and Employment Trends:

- $23,900 Average Annual Salary (2020) in WV
- $11.49 average per hour in WV
- 1180 Projected job openings between in WV (2018-2028)
- 237,200 Projected job openings in the US (2019-2029)

Wage and employment trends based on Department of Labor and ONET statistics.

CIP Code: 120505

Fall Semester (17 Credits)

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 124 - General Nutrition

3 Credit(s)
This is an introductory course in nutrition. Its topics include definition of the nutrients and will address nutrient requirements and the use of RDA charts. The course includes the sources of nutrients and the effect of nutrient

deficiencies. Digestion, absorption and weight control are a part of the course.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 131 - Bakeshop

3 Credit(s)
This course is designed for the beginner baker. Topics include baking principles, ingredient function and handling, weights and measures, terminology and formula procedures. Also included are the use and care of bakeshop tools and equipment. Production includes yeast products, cakes, cookies, pies and assorted desserts. Students must register for a lecture and laboratory section. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 145 - Elements of Commercial Food Preparation and Service

3 Credit(s)
This course is basic cooking skills and front of the house dining services. The course will cover the cooking of fundamental menu items to include breakfast, lunch and dinner items. Both à la carte and buffet preparation will be included in the cooking methods in this course. Included in the course are methods of table service, preparation of the dining room for service, personal hygiene, and sanitation and customer relations. Students actively perform standard American Service on a rotating basis. The student will be exposed to cooking and service to customers each week. The student must have a server's uniform and a chef's uniform for this class. This course is to be offered the second nine week period in the first semester and is a continuation of CART 159 - Basic Food Science.

Pre/Corequisite(s): CART 121, CART 159 or permission of instructor.

CART 159 - Basic Food Science

3 Credit(s)
This course is an introduction to basic cooking skills, knife skills and the chemistry of foods. Content includes sandwiches, salad dressings, hors d'oeuvres, stocks, soups, vegetables, egg cookery and beverages. This course also covers basic food decorations and garnishes. Emphasis is on identification, selection, use and handling of ingredients. The course covers the cooking skills and methods used for the successful preparation of fundamental menu items - breakfast, lunch, and dinner. Emphasis is on preparation and handling. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

Spring Semester (15 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 151 - Meat, Poultry and Seafood Preparation

3 Credit(s)
This course covers government standards for inspection and grading of meats, poultry and seafood. Emphasis is on the identification of meats - both primal and retail - and on the selection of the proper cooking method for varying cuts/types of meat, poultry and seafood. Production will include the preparation of menu items containing meat, poultry and seafood. Students are required to have a complete chef's uniform for this class.

Pre/Corequisite(s): CART 121 and CART 159 or permission of instructor.

CART 175 - Advanced Food Science

3 Credit(s)
This course is an expansion of CART 159. The emphasis is on the preparation and presentation of the classical techniques used in the culinary kitchen. The chemistry of foods and their origins will be further explored in this course. This course will cover such areas as vegetable reactions to different cooking techniques and mediums, the classical production of sauces and the uses of herbs and spices. The production of fresh made pastas, corn products, rice and other grains will be explored in this course. Students are required to have a complete chef's uniform for this class.

Prerequisite(s): CART 159.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

- MATH - Math Core Requirement **3 Credit(s)**

Total Credits 32

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Electro-Mechanical Technology, C.A.S.

Major Code: 263

The program of the Electro-Mechanical Technologies, C.A.S., is a one-year program designed to prepare individuals to be maintenance employees in the exciting fields of Electrical or Mechanical maintenance. You will learn about the installation, trouble shooting, and repairing of modern industrial machinery, and how to work alongside other maintenance workers and engineers. The highly technological, integrated and automated manufacturing facilities of today's modern workplace demand advanced training that we provide. Employers are looking for technicians who have strong interdisciplinary training and skillsets.

Upon completion of this program, graduates will be able to:

- Describe the basic principles of hydraulic and pneumatic systems.
- Safely perform basic welding practices used in industrial applications.
- Apply scientific principles to electrical systems.
- Describe the basic principles of refrigeration systems.
- Describe the various mechanical components used in modern machinery.
- Demonstrate safe practices and procedures to avoid common industrial hazards.
- Interpret electrical and mechanical prints and other documentation.

CIP: 150403

Fall Semester (14 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career

paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MEC 122 - Machine Maintenance and Installation I

3 Credit(s)
The course covers basic principles associated with mechanical power transmission systems and examines the procedures for removal, repair, and installation of machine components. Installation techniques, alignment, lubrication practices, and maintenance procedures for industrial machinery are emphasized. Students also learn the techniques involved in the calibrations and repair of mechanical devices and procedures to perform calculations related to industrial machinery.

Prerequisite(s): Must have math placemnt equivalent.
Corequisite(s): None
Pre/Corequisite(s): None

Spring Semester (16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Energy Technology, C.A.S.

Major Code: 264

The Energy Technology C.A.S. program is designed to prepare students for employment in the natural gas drilling, gathering and field operations industry including Marcellus and Utica Shales and to give students a basic understanding of renewable energy technologies used on the well site. The program provides a strong foundation in oil and gas exploration, production, including development in the Appalachian Basin. Laboratory classes include a strong emphasis on hands-on experiences. Safe work practices are emphasized and several industry credentials are embedded within the curriculum.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Follow conventional industrial safety and communication practices
- Perform procedures and tasks commonly used in exploration for and production of oil and gas in the Appalachian Basin
- Identify basic considerations that go into natural gas processing
- Use various instruments and equipment to measure fluids, temperature, flows, and pressures
- Apply principles of hydraulic, pneumatic, and electrical systems to equipment in the energy industry
- Explain alternative energy technologies and applications as applied to well sites

The program prepares graduates for employment as field technicians, pumpers, drilling technicians, and other technical positions related to the energy industry.

Job Titles: Board Operator, Gauger, Hydrotreater Operator, Outside Operator, Pumper, Unit Operator

Wage and Employment Trends:

- Median Wages (2016) $27.15 hourly, $56,470 Annual
- Employment (2016): 15,000 Employees
- Projected growth (2016-2026): Much faster than average (15% or higher)
- Potential Industry Credentials Earned: SafeLands USA, OSHA 30 hour General Industry completion card, CPR/First Aid, Compressor Basic Training, Well Control Awareness Training, FEMA Introduction to Hazardous Materials Training

CIP Code: 150903

Fall Semester (15 Credits)

APT 100 - Introduction to Applied Technology

2 Credit(s)
This course is designed to provide students with an overall understanding of the oil and gas industry including career paths in natural gas processing, advanced manufacturing, instrumentation, and chemical operations. Students will become acquainted with the reasons for the demand for workers with a blend of mechatronics skills and specialized industry understanding.

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

NRG 101 - Energy Transition Technology & Applications

1 Credit(s)
This course will introduce students to technologies used in the worldwide effort to transition to less reliance on fossil fuels. Topics covered include methods used to generate electricity, power vehicles and technologies for Carbon Capture, Utilization and Storage (CCUS).

PTRM 104 - Production Technology with Hands-On Lab

3 Credit(s)
This course trains the student in tasks, methods, and procedures commonly used in the production of oil and gas in the Appalachian Basin. Topics include two, three, and four phase flow, use and maintenance of production surface equipment, artificial lift, gauging tanks, thieving tanks, preparing oil to be run, gas dehydration, and gas measurement.

Spring Semester (15/16 Credits)

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors, and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 101 - Intermediate Algebra

3 Credit(s)
This course is designed to prepare students for the concepts and rigor of college-level STEM, S (science), T (technology), E (engineering), M (mathematics) courses. Topics include writing, and evaluating algebraic expressions; solving linear equations and inequalities; manipulation with positive and negative exponents; addition, subtraction, multiplication, division and factoring of polynomials; graphing and writing linear equations; graphing and writing inequalities, simplifying and solving rational expressions and equations, and applying functional properties.

Pre/Corequisite(s): Satisfactory math placement or MATH 101S and satisfactory reading and writing placement or ENG 097 or ENG 101.

or

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .

or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

PTRM 150 - Drilling/Completion Operations

3 Credit(s)
This course trains the student in the tasks, methods, and procedures commonly used in drilling and completing oil and gas wells including in the Appalachian Basin. Students will learn about drilling rig components and operations as well as completion techniques. Emphasis is placed upon safe operation of the systems. Hands-on training provides experience in the proper and safe use of equipment used in the drilling operation.

Total Credits (30-31)

*Course has a hands-on lab component.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Hospitality and Tourism, C.A.S.

Major Code: 321

The certificate will prepare students for entry level positions in the hospitality industry. Completion of this certificate provides the skills needed to meet personal and professional goals in the chosen hospitality field. Students will need to complete a field experience as part of this program.

Graduates can expect obtain employment positions as assistant restaurant food service, assistant hotel managers, conference planners and managers in areas related to travel and tourism.

Hospitality CAS Program Outcomes

- Identify and compare various components of the hospitality industry and specify the career challenges and trends.
- Understand the basic workings of a manger in the hospitality industry.
- Understand the relationship between cost and revenue and how to be prepared for unique challenges in the industry.
- Explain governmental regulations and laws on the local, state, and federal level. How do they impact hospitality directly and indirectly.
- Apply communication skills through discussion of sales promotion, advertising, and public relations policies by researching behavior of the hospitality industry.

CIP Code: 520904

Fall Semester (14 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 100 - Introduction to Business

3 Credit(s)
This course is a survey of the free enterprise system, the United States economy, the economic and social forces (both domestic and global) affecting the business environment, and the social responsibility of business. Emphasis is placed upon the functional areas of business including management, marketing, finance, information management, human resources, and the legal environment in which firms operate.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

CART 121 - Food Service Sanitation and Safety

2 Credit(s)
Topics addressed in this course include sanitation in food service and the role of food service managers in setting up a program of sanitation; the identification of food-borne illnesses, including the foods commonly involved, and corrective measures for prevention of illness and the application of sanitation concepts in the operation of a food service establishment. Students are required to take the certification exam by the Education Foundation of the National Restaurant Association in sanitation as a part of this course. This course satisfies requirements for ACF certification.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (16 Credits)

CART 125 - Essentials of Dining Services

3 Credit(s)
This course is designed to provide an understanding of dining room procedures and principles used for Classic European and Asian cuisine in full service operations and buffet service. Students receive a more in depth study of front of the house operations and professional dining service. Quality service, positive guest relations, and effective communication skills are emphasized. Students actively perform classic plate service. Table side cookery is also included in the course. The course is also an instruction to beverage service. The students will be introduced to identification, production and service of beverages. All local, state and federal laws concerning the establishment and the server will be discussed. Practical application of the principles is accomplished by waiting on tables during the International Cuisines luncheon series. The student will receive certification in alcohol responsibility serving. The

student must have a server's uniform for this class.

Pre/Corequisite(s): CART 121.

CART 245 - Menu, Purchasing and Cost Control

3 Credit(s)
This course is designed to present menu planning as a guide to managing and cost controls. The emphasis is on the key role menu planning, pricing structures and cost controls play in relation to the entire operation of a food service establishment. Course includes planning various menus and proper pricing structures with regard to food, labor, utility and beverage costs. Students will be expected to understand the overall concept of purchasing and receiving practices in quality food service operations and to be able to apply knowledge of quality standards and regulations governing food products to purchasing function. The student will receive and store food and non-food items properly using standard storage practices. This course is designed to teach the management of the monetary dimension of the hospitality industry.

Prerequisite(s): Math Core requirement

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

HAT 150 - Meeting and Convention Planning

3 Credit(s)
This course exposes students to principles and practice experiences in planning meetings, conventions, and catered functions. Students will plan, organize, execute, and evaluate meeting and catering functions to meet the needs of clients and guests. Emphasis is placed on customer satisfaction and how it is measured.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097
Pre/Corequisite(s): ENG 101

HAT 155 - Hotel/Lodging Mgt and Practicum

4 Credit(s)
This course will look at the lodging industry specifically. This course is a partial lecture base and field experience. Students will be required to have a field experience of a minimum of 150 hours for the semester. Students will look at the guest experience relations and what that encompasses. Students will learn different software systems to communicate and track the operations.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101

Total Credits 30

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Industrial Maintenance Technology, C.A.S.

Major Code: 243

This program is designed to provide the technical knowledge and skills necessary for entry-level maintenance personnel positions in many types of businesses and industries. Students are prepared to make a rapid transition into gainful, productive employment.

Upon completion of this program, graduates will be able to:

- Demonstrate basic knowledge of welding
- Demonstrate basic knowledge of hydraulic systems
- Demonstrate basic knowlesge of pumps and piping systems
- Demonstrate basic knowledge of electrical systems
- Recognize common industrial hazards
- Interpret basic industrial prints

Graduates from this program can expect to obtain employment in positions such as welders, pipefitters, heating technicians, refrigeration technicians, and facility maintenance workers.

Graduates are employed by unions, industrial, chemical and electrical plants, industrial centers, light and heavy commcercial centers, and health care facilities. The employment outlook for industrial maintenance technicians is excellent. There are job opportunities in Industrial Maintenance throughout the region and across the United States.

CIP Code: 470399

Fall Semester (15 hours)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

APT 150 - Hydraulic and Pneumatic Fundamentals

3 Credit(s)
The course provides the basic theory of fluid power systems including Pascal's Law. Students will study the various components of fluid power systems including pumps, valves, cylinders, filters, heat exchangers, pressure regulators and accumulators. Hydraulic terminology and the use of hydraulic symbols on schematics are an area of focus. Students will design and troubleshoot elementary fluid power circuits. Students will also study pneumatic systems and system components. Both hydraulic and pneumatic system are covered in the maintenance sections.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

- Math Requirement* **3 Credit(s)**

RAH 100 - Basic Refrigeration I

3 Credit(s)
This course will provide an introduction to the field of heating, air conditioning, ventilation, and refrigeration and the physical laws of the refrigeration process. Students will identify basic system components, and identify basic system designs. Students will become familiar with common test equipment used by the technician. Students will record and compare temperature and pressure measurements, analyze and interpolate temperature and pressure relationships, explain heat and heat transfer, explain energy and energy conversion, and differentiate sensible, latent and total heat. Students will demonstrate proper techniques for refrigerant recovery, system evacuation, pressure testing, and system charging.

Spring Semester (16 credits)

APT 112 - Introduction to Welding

3 Credit(s)
The course introduces all forms of welding processes. Students will learn about the history of welding and its progression to current practices used today. They will also receive basic hands-on experience with Oxygen/Acetylene brazing, soldering, welding, and cutting. They will be instructed on Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW) processes according to the American Welding Society (AWS) Part. D.1.1 Structural Steel Standards. They will learn proper equipment set-up material selection, and the basic quality control aspects of weld inspection.

APT 155 - Electrical and Electronic Fundamentals

3 Credit(s)
The course covers electrical laws and principles pertaining to DC and AC circuits. Topics covered include current, voltage, resistance, power, inductance, capacitance, and transformers. Proper use of standard electrical tests, electrical equipment and troubleshooting principles are stressed. Safety procedures are emphasized throughout the course. This course also introduces the principles which describe the operation of DC and AC circuits, covering both steady and transient states, and applies these principles to three-phase supplies, transformers, DC machines and three-phase induction motors. New topics included in this edition are a complete update on semiconductor diodes and transistors,

and additional material on batteries, fuel cells and alternative and renewable energies, test and measuring instruments.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

- English Requirement** **3 Credit(s)**

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

MEC 120 - Motors and Motor Controls

3 Credit(s)
The course provides a general understanding of common types of electric motors, extending from small shaded pole fan motors to large three-phase motors. Topics covered will include motor theory, magnetism and its effect on motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from the motor, motor slippage, wiring techniques used to obtain different speeds, and the effect of capacitors on a motor circuit will be included.
Students will also learn the operating principles of various types of electric motor operation for both industrial and residential use. Further instruction will be given on: how to safely control, troubleshoot, repair and install motors. And how to use Variable Frequency Drives (VFDs) in industry.

Prerequisite(s): Satisfactory math placement or MATH 101
Corequisite(s): None
Pre/Corequisite(s): None

MEC 232 - Pumps and Piping

3 Credit(s)
The course provides basic theory of layout of industrial piping systems. A variety of pumps, their components, and service applications will be examined. The course will provide an introduction to pipe fitting and identification of different pipe materials, sizing and connection methods for proper fluid handling with an emphasis on practical applications. Lab activities stress safety and include experience cutting and threading pipe, laying out a piping system, and connecting the system to working pump units and pump alignment.

Prerequisite(s): APT 103 and APT 104 with a minimum grade of a C, APT 150.

Total Credits 31

*Choose from MATH 101 or MATH 108 or MATH 113 or MATH 279 or MATH 280 or MATH 281

**Any college level English will fulfill this requirement.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Licensed Practical Nursing (LPN), C.A.S

Licensed Practical Nursing (LPN), C.A.S.

Major Code: 162M

NOTE: This program has specific entrance requirements, application, and standards of progress requirements. See the Nursing and Allied Health Selection and Admission sections for additional information. The program course requirements are presented in sequence. Part-time students and others who cannot follow this sequence should check course descriptions in the catalog to determine prerequisites and, in addition, should consult their academic advisor regarding the order in which they take courses.

LPN is a profession with a comprehensive body of knowledge and skills. Practical nurses practice the art and science of nursing, providing compassionate, comprehensive, and competent care to patients of all ages. LPNs are essential members of the healthcare team who work under the direct supervision of registered professional nurses to perform their duties.

In addition to General Education Outcomes, graduates will be prepared to:

1.Provide competent, safe, quality, patient-centered nursing care to patients with predictable healthcare needs through a supervised, directed practice using professional standards, best practices, and available evidence. (**Safe, Patient-Centered Care)**

2. Participate as an advocate for patients and promote dignity, respect, and privacy while using ethical and legal principles. (**Caring Behaviors)**

3.Interact and collaborate with patients and members of the healthcare team using effective communication and information technology. **(Communication)**

4. Provide competent, safe, quality, patient-centered nursing care using critical thinking skills and clinical judgment. (**Clinical Judgment)**

5. Participate in collaborative relationships with patients and members of the interdisciplinary healthcare team to assist in planning, delivery, coordination, and improvement of patient-centered care. (**Collaboration)**

6. Assist in the coordination of the care of diverse patients in a variety of healthcare settings using professional behaviors.(**Leadership)**

CIP CODE: 51.3901

First Semester

LPN 110 - Fundamentals and Foundations of Practical Nursing

8 Credit(s)

Fundamentals of nursing introduces the student to concepts and theories basic to the art and science of nursing. The role of the practical nurse as a member of the healthcare team is emphasized in this course. Students are introduced to the concepts of comfort measures, assistance with daily living activities, safety, positioning and transporting, asepsis and sterile techniques, communication, teaching/learning, critical thinking, ethical-legal issues, cultural diversity, and the history of nursing.

This course focuses on the basic nursing care concepts of adult patients. Learners are challenged to use clinical judgment skills guided by established guidelines, competencies, and best practices. Communication, use of clinical judgment, vital signs, body mechanics, aseptic technique, nutrition, and patient safety are emphasized. Medication calculation and administration of medications are practiced.

Concurrent clinical experience is required. The student will perform nursing skills and function within the scope of practice for a practical nurse in various health care settings during clinical practicums. Clinical experiences provide learners the opportunity to apply psychomotor skills, communication, and the systematic problem-solving process (nursing process) to provide safe, quality, patient-centered nursing care for adult patients. Successful completion of all laboratory, theoretical, and clinical components are required to receive credit for this course.

Prerequisite(s):

ENG 101 , AHS 103 , BIO 114 ,BIO 115
Corequisite(s): LPN 111 , LPN 112

LPN 111 - Integrated Human Sciences

2 Credit(s)
Integrated Human Sciences focuses on the normal anatomy and physiology of the human body, beginning with the cell and concluding with interactions among all body systems as an integrated whole. Using a systems approach, normal development and function of each system and the interaction among body systems are examined. The primary emphasis of this course includes a study of the cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, sensory, endocrine, blood, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive. Secondary emphasis of this course includes alterations in the structure and function of major body organs and systems. Interdependent regulations among systems are included with emphasis on application in nursing care situations.

Prerequisite(s): ENG 101 ,AHS 103 , BIO 114 , BIO 115
Corequisite(s): LPN 110 , LPN 112

LPN 112 - Pharmacology for Practical Nurses

2 Credit(s)
This course introduces learners to the concepts and general principles of pharmacology. Emphasis is placed on the physical and chemical properties of various pharmacology preparations, their pharmacodynamic and pharmacokinetic properties, the therapeutic effects of major drug categories, and health teaching considerations. Learners will apply knowledge gained in this course to selected clinical settings when caring for patients across the lifespan.

Prerequisite(s): ENG 101 , AHS 103 , BIO 114 , BIO 115
Corequisite(s): LPN 110 , LPN 111

Second Semester

LPN 121 - Medical-Surgical Nursing I

7 Credit(s)
This course focuses on the care of adults experiencing common and predictable health problems. Learners are challenged to use critical thinking skills guided by established professional standards, guidelines, competencies, and best practices. Health problems are examined with regard for pathophysiology, nutrition, pharmacology, legal, and ethical concepts. Clinical experiences provide learners the opportunity to apply psychomotor skills, communication, legal and ethical responsibilities, and systematic problem-solving (nursing process) to provide safe, quality, patient-centered nursing care for adult patients.

Corequisite(s): LPN 122 , LPN 123

LPN 122 - Nursing & Healthcare I- Practice, Issues & Trends

2 Credit(s)
This course provides an overview of practical/vocational nursing and the role of the PN/VN as provider and patient-centered care, patient safety adovcate, member of the health care team, and member of the profession. Content includes knowledge, judgement, and values within a legal/ethical framework. The needs of the patient in relation to spirtiuality and culture are addresed. Principles of growth and development throughout the life cycles are included.

Corequisite(s): LPN 121 ,LPN 123

LPN 123 - Mental Health Concepts/ Geriatric Nursing

4 Credit(s)
This course focuses on the care of patients experiencing common, predictable alterations in mental health. Emphasis is on behavioral manifestations, psychological theories, and psychosocial adaptation to mental health problems, cultural and spiritual beliefs, and stress at various stages of personality development throughout the lifespan. The focus is on therapeutic communication, with attention given to an understanding of one's own behavior and this influence on the nurse-patient relationship.

Corequisite(s): LPN 121 , LPN 122

Third Semester

LPN 130 - Medical-Surgical Nursing II

7 Credit(s)
This course focuses on the nursing care of the adult patient with common, long-term, and chronic healthcare needs. The course builds on content from LPN 121 , including health problems of greater complexity involving multiple body systems. Concepts of rehabilitation and care of patients at the end of life are emphasized. The application of pharmacotherapeutic, legal and ethical aspects of care for adults and their families in various cultures and stages of development are included. Guided by established professional standards, guidelines, competencies, and best practices, clinical experiences provide learners the opportunity to apply psychomotor skills, psychosocial concepts, communication, legal and ethical responsibilities, and systematic problem-solving (nursing process) to provide safe, quality, patient-centered care for adult patients as individuals, families, and communities.

Prerequisite(s):

Corequisite(s): LPN 131 , LPN 132

LPN 131 - Maternal-Child Nursing

4 Credit(s)
This course focuses on the care of patients during the child-bearing cycle and during childhood developmental phases. Concepts of normal growth and development, as well as deviations from the normal, as a part of family life are emphasized. The effects of acute, chronic, and terminal health problems are considered with regard for impact on developmental tasks and family maintenance. Clincal experiences offer learners the opportunity to use established professional standards, guidelines, competencies, and best practices to provide safe, patient-centered care to pregnanct women, infants, children, adolescents and their families.

Corequisite(s): LPN 130 , LPN 132

LPN 132 - Nursing and Healthcare II: Practice, Issues, Trends and NCLEX Review

3 Credit(s)
This course focuses on the role of the licensed practical/vocational nurse as a member of the profession, provider of patient-centered care, patient safety advocate, and member of the healthcare team. Legal/ethical responsibilities, preparation for employment, nursing organizations, continuing education, professional development, and lifelong learning are emphasized. NCLEX preparation and review will also be included.

Corequisite(s): LPN 130 , LPN 131

Total Credits (39)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

IMPORTANT PRE-REQUISTE REQUIREMENT INFORMATION:BIO 114 , BIO 115 , ENG 101 , and AHS 103 are all pre-requiste courses and as well as graduation requirements for the LPN Program. See your advisor to determine if you have met this requirement.

Medical Assisting, Administrative Medical Assistant, C.A.S.

Major Code: 163

Students selecting the Administrative Medical Assistant, CAS option will be provided training in administrative medical office procedures. Students successfully completing the program can test for the Certified Medical Administrative Assistant credential from the National Healthcareer Association (CMAA-NHA) and are eligible to apply for admission to the Clinical Medical Assistant Associate in Applied Science Degree Program at WVNCC.

In addition to General Education Outcomes, upon completion of the program, graduates will be able to:

- Identify and differentiate the roles of the various members of the health care team.
- Differentiate administrative competencies and clinical competencies for the medical assistant post patient demographic and clinical information to the electronic health record.

- Produce medical insurance claims with an appropriate diagnostic and procedural coding according to the policies of private, state, federal and Workers' Compensation agencies.
- Demonstrate medical financial management skills, including, patient data entry, billing, insurance submission and standard financial accounting reports.
- Comprehend legal and ethical issues related to a career as a member of the health care team.
- Demonstrate knowledge of compliance related to HIPAA and OSHA Standards.
- Demonstrate an understanding of professionalism in the medical office setting.
- Demonstrate therapeutic communication techniques.

Occupations available for students completing program requirements include the following: medical office receptionist, medical office assistant, administrative medical assistant, and Certified Medical Administrative Assistant, and hospital admissions clerk. Graduates of this program can expect to obtain entry-level employment primarily in ambulatory care settings. According to the U.S. Department of Labor's Occupational Outlook, employment of administrative medical office employees is projected to grow 10 percent from 2014 to 2024.

Important information: If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board, and agencies which require criminal background checks on potential employees and students may deny you employment or placement in certain settings, even if you have completed all academic requirements. If you have been convicted of a felony or misdemeanor, please contact the appropriate Health Science Program Director.

Job Titles: Certified Medical Administrative Administrative Assistant (CMAA), Medical Office Assistant, Administrative Medical Assistant

Wage and Employment Trends:

- Annual Range Regionally $19,950 to $22,130 (Onet, 2017)
- 262,100 Projected National Growth Nationally (Onet, 2017)
- Certification Option: Certified Medical Administrative Assistant (CMAA) through National Healthcareer Association (NHA)

CIP Code: 510710

Fall Semester (16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MAS 150 - Introduction to Medical Administrative Procedures

3 Credit(s)
This course introduces the Medical Assisting profession with emphasis on the medical administrative competencies. Students explore the role of the Medical Assistant as a member of the health care team. Topics focus on therapeutic patient communications, the medical record, professionalism, community resources, office productivity, the application of HIPAA and OSHA standards and medicolegal issues.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

Spring Semester (14 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on

application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MAS 125 - Basic Diagnostic and Procedural Coding

2 Credit(s)
This course introduces coding skills required for basic medical coding in physicians' offices and other ambulatory care settings. Emphasis is placed on the conventions of ICD diagnostic and CPT procedural coding, and appropriate selection of codes to demonstrate medical necessity.

Pre/Corequisite(s): AHS 103 and BIO 114.

MAS 151 - Medical Financial Management

2 Credit(s)
This course includes practical application of financial procedures in the medical practice including computerized financial processes, electronic insurance submission, reimbursement, patient billing, collections, and banking procedures.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101 and MATH 109 .

MAS 153 - Medical Insurance and Reimbursement Methodologies

2 Credit(s)
This course provides students with entry-level skills for completion and processing of medical insurance forms for financial reimbursement. Emphasis is on insurance terminology and the policies and procedures related to completion of insurance claims for private, state, federal, and Worker's Compensation providers.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Pre/Corequisite(s): ENG 101.

Total Credits (30)

A minimum grade of a "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Medical Billing and Coding, C.A.S.

Major Code: 261

Students selecting the Medical and Coding, C.A.S. program will be provided training in general and career-specific courses including medical terminology, anatomy and physiology, business math, medical insurance, diagnostic and procedural coding, computerized billing, accounts receivable, and reimbursement methodologies. Upon completion, students will sit for a nationally approved entry-level coding credential.

- Demonstrate knowledge of entry-level procedures related to health information management, medical reimbursement, and the revenue cycle.
- Demonstrate ability to select diagnostic and procedural codes with data extracted from the medical record.
- Demonstrate the ability to complete insurance claims providing all information required by insurance carriers.
- Demonstrate the ability to apply knowledge of accounts receivable processes.
- Complete work in the computerized billing system.
- Demonstrate knowledge of the application of legal and ethical standards to all aspects of the medical office.
- Demonstrate knowledge of application of HIPAA to all aspects of the medical office.
- Apply anatomy & physiology and medical terminology to medical billing and coding procedures.

Students successfully completing the Medical Billing and Coding, C.A.S. program qualify to apply to the Health Information Technology, A.A.S. program.

CIP Code: 510713

Fall Semester (15 Credits)

AHS 102 - Electronic Health Records

1 Credit(s)
This course serves as an introduction to the electronic health record. The combination of lecture and hands-on application software provides medical professionals an opportunity to transition from paper medical records to electronic health records.

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

BIO 114 - Anatomy and Physiology I

3 Credit(s)
This course is the first semester of an introductory two-semester sequence on the structure and function of the human body. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. Topics include the fundamental concepts of chemistry, cytology, histology, a study of the integumentary system, the skeletal system, the muscular system, the nervous system, and the special senses. This course includes both a lecture and a lab component.

Pre/Corequisite(s): ENG 101 or ENG 115

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MBC 100 - Revenue Cycle Management I

3 Credit(s)
This course introduces students to the revenue cycle processes for inpatient, outpatient, and skilled care medical facilities. All components of the revenue cycle are covered including patient registration, medical billing and accounting processes, medical insurance and reimbursement methodologies.

Corequisite(s): MBC 110
Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

MBC 110 - Physician and Hospital Coding

3 Credit(s)
Students are introduced to basic ICD-10-CM diagnostic coding as well as CPT-4 and HCPCS procedural coding for inpatient, outpatient, and skilled care facilities. Emphasis is placed on the appropriate selection of codes to meet Medical Necessity standards for medical insurance claims. Codes are selected for Evaluation and Management, Surgery, and other medical diagnoses, prodecures, and supplies.

Pre/Corequisite(s): AHS 102, AHS 103, BIO 114, and ENG 101

Spring Semester (15 Credits)

AHS 108 - Disease Process Applications

3 Credit(s)
This course focuses on basic pathophysiological and pharmacologic concepts for non-clinical health sciences students. Students will gain knowledge of disease processes and treatment modalities and the application of these to administrative medical procedures, including diagnostic and procedural coding and the medical record.

Pre/Corequisite(s): AHS 103 and BIO 114

AHS 110 - Medical Legal/Ethical Issues

1 Credit(s)
This course provides an overview of the laws and ethics that all health care providers should know to help give compassionate care to patients within legal and ethical boundaries.

BIO 115 - Anatomy and Physiology II

3 Credit(s)
This course is a continuation of BIO 114 with a study of endocrine, immune, lymphatic, cardiovascular, digestive, respiratory, excretory, and reproductive systems. Other topics of the course include blood, nutrition, diet, energy balance, electrolyte balance, acid-base balance, pregnancy, human development, and heredity. The students are expected to develop knowledge and understanding of the appropriate terminology and apply the basic physiological concepts such as homeostasis to describe the body systems in normal and selected pathological conditions. This course includes both a lecture and a lab component.

Prerequisite(s): BIO 114.

CIT 117 - Microsoft Applications

3 Credit(s)
This course is an introduction to the Windows operating system and Microsoft Office applications. Students must be able to use a keyboard, mouse, and have a basic understanding of computers. Students will be presented with an overview of essential computer concepts and Windows. Students will have introductory units in web browsers and general office applications. Students will explore several Microsoft Office applications where they will learn email, word processing, spreadsheet, database, and presentation applications.

MATH 115 - Mathematics for Health Sciences

3 Credit(s)
This course intertwines mathematics and the health sciences field. Students will learn the necessary skills to succeed in the health sciences workplace. Topics begin with a review of basic arithmetic and foundational math skills, then progress through simplifying and solving algebraic expressions and equations, respectively. This course covers statistical measures of central tendency: mean, median, mode and range. Problems related to the health care field include oral, parenteral, and intravenous dosage calculations and dosage calculations based on weight. Additionally, students will learn percent strength solutions, how to read medication labels, syringes, IV bags, and graphs, and use ratios and proportions to convert units in drug calculations.

Corequisite(s): Satisfactory math placement or MATH 115S.

MBC 125 - Revenue Cycle Management II

3 Credit(s)
This course is a continuation of MBC 100 . Focus is placed on the application of medical billing processes to include medical billing procedures and insurance claim requirements and processing for inpatient, outpatient, and skilled care facilities. Students demonstrate skills using an online medical office management system.

Prerequisite(s): MBC 100 and MBC 110
Pre/Corequisite(s): AHS 108, AHS 110, BIO 115, CIT 117, and MATH 115

Total Credits (30)

A minimum grade of "C" is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Patient Care Technician, C.A.S.

Major Code: 260

The Patient Care Technician is a program which prepares a medical professional to perform hands on basic medical services, help those who are ill or injured, obtain EKG and vital signs, collect specimens, perform phlebotomy procedures, and assist individuals who need help with daily activities. This program allows for testing for three certifications through NHA: Patient Care Technician (PCT), Phlebotomy Technician (CPT) and EKG Technician (CET). There is a growing need for patient care throughout all segments of the health care industry. Patient care technicians work under the supervision of a provider and have direct patient contact as a member of the health care team. Employment opportunities may include assisted living facilities, Urgent Care Clinics, Community Health Agencies, Home Health Services, Hospitals, Laboratories, Long-term Care Facilities, Medical Centers, Nursing Homes, Physical Therapy Departments, Physician Offices, and Rehabilitation Centers. Students learn from instructors who work in the health care field and understand what it takes to provide top quality health care. Patient care students learn skills in a medical lab on campus which replicates the medical care environment.

In addition to General Education Outcomes, upon completion of this program, graduates will:

- Perform basic patient care skills
- Apply infection control and safety measures in health care setting
- Provide legal and ethical care consistent with National Health Care Association (NHA) standards
- Perform basic venipuncture technique to NHA standards
- Perform basic EKG technique and interpretation to NHA standards
- Communicate effectively and appropriately in interactions with patients and as a member of the health care team when providing basic patient care

Students must complete PCT I & PCT II prior to being eligible to take Patient Care Technician Certification exam.

CIP Code: 513902

Fall Semester (15/16 Credits)

AHS 103 - Medical Terminology

1 Credit(s)
This course is a study of the structure of medical words. Emphasis is placed on spelling, pronunciation, building and use of acceptable medical terms.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097, ENG 101, or ENG 115.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

PCT 101 - Patient Care Technician I

5 Credit(s)
This course is designed to prepare students for the Patient Care Technician role in health care settings. The learner is introduced to basic nursing care, basic home health care, resident rights, safety and emergency nursing procedures. Principles of therapeutic relationships and client care are presented as well as the legal/ethical issues related to the patient care technician. Emphasis is on the personal qualities, knowledge, and skills needed by the PCT to give quality basic nursing care under supervision of registered nurses and independent assistant to the patient in home setting. This course provides instruction in basic nursing skills through lecture and campus laboratory. Major topics include legality and promotion of patient rights, communications, infection control, measurement of basic body functions, effect of aging and disease on body systems, measures to promote independence and rehabilitation, specimen collection, nutrition, and elimination assistance. Because this is a skills-based course, classroom and laboratory attendance is mandatory.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- Restricted Electives **3 Credit(s)** **
- Science Core Requirement **3(4) Credit(s)***

Spring Semester (14/16 Credits)

- Math Core Requirement **3(4) Credit(s)**
- Electives **2(3) Credit(s)**

PCT 151 - Patient Care Technician II

6 Credit(s)
This course is designed to teach the knowledge and skills required to become certified in both Phlebotomy and Electrocardiography. Students will be taught the principles of quality control, infection control, safety procedures, pathology, medical terminology, and the legal and ethical aspects of patient care. This course includes classroom instruction and campus laboratory skills practice. The Phlebotomy portion of the class will teach the duties associated with the practices of venipuncture, capillary puncture, and special collection procedures. The Electrocardiography portion will prepare students to perform EKG's, interpret cardiac rhythms, and provide information on the structure and function of the heart with emphasis on electrophysiology.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

- Restricted Electives **3(4) Credit(s)*****

Total Credits (30/32)

*Science Core Requirement: BIO 130, BIO 114, BIO 220

**Restricted Electives: SPCH 101, SPCH 105, CIT 117, PSYC 105, PSYC 208

***Restricted Electives BIO 115, BIO 225, AHS 108, SPCH 101, SPCH 105, CIT 117, PSYC 105, PSYC 208

It is recommended that students take BIO 115 or 225 in the spring semester if completing BIO 114 or 220 in the fall semester.

A minimum of a "C" grade is required in all courses to remain in the program and graduate.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Certificate in Applied Science Program listed below for acceptable core requirements.

General Education Core Requirements

Certificate of Applied Science General Education Requirements

Small Business Management, Business Career Studies, C.A.S.

Major Code: 158

This program is designed to prepare students to make sound management decisions concerning the operation of a small business. A basic background is provided in the following areas: accounting, computers and information technology, business law, marketing, business communications, and management.

This certificate program may be transferred to a two year program leading to an Associate in Applied Science degree.

In addition to General Education Outcomes, upon completion of this program, graduates will be able to:

- Implement the full accounting cycle for various types of organizations
- Market and promote products
- Use quantitative reasoning to solve problems in the business and accounting fields
- Analyze how local and global economies affect business management
- Use basic application software in the field of business
- Demonstrate managerial decision making

Graduates can expect to be employed in retail establishments, sole proprietorships, and food and hospitality industries.

Statistically, individuals with entrepreneurial skills constitute one of the fastest growing fields of employment.

Job Titles: Entrepreneurs, Assistant Managers, Front line shift supervisors, Store managers.

Wage and Employment Trends:

- According to the American Community Survey by the US Census Bureau, the median income for individuals who were self-employed at their own incorporated business in WV was $42,450 in 2014; for those self-employed at their own unincorporated firms, it was $18,785.

CIP Code: 520701

Fall Semester (15 Credits)

ACC 122 - Principles of Accounting I

3 Credit(s)
This course covers the accounting process: the observation, measurement, and reporting of economic activity in order to develop information useful for decision-making. Basic underlying accounting procedures and techniques involved in recording and classifying business transactions, accounting cycles, journals, ledgers, working papers, financial statements, procedures involved in adjusting and closing accounting records, accrued and prepaid items, petty cash, banking, bad debts and depreciation are covered.

BA 240 - Business Law

3 Credit(s)
This course examines the foundations of U.S. law, the judicial system, civil & criminal law, consideration and acceptance of contracts, contractual breaches and remedies, banking and borrower rights, securities laws, consumer rights amd laws, and the transfer and exclusive protections of real and intellectual property, all within the context of preparing students as business operators or stakeholders. Activities and assessments will explore legal case studies to contextualize concepts and employ logical reasoning and writing structure to determine and explain legal conclusions.

CIT 120 - Microsoft Word I

3 Credit(s)
The focus of this course will be to develop word processing skills which students can use in producing documents for their college courses and personal use. The approach used will be brief lectures highlighting concepts covered in the text. Students will spend the majority of their time performing and refining their word processing skills with hands-on computer work. The students will cover the topics required for the WORD (MOS) Specialist tests.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 .

ECON 104 - Principles of Macroeconomics

3 Credit(s)
This course is an introduction to economic analysis, monetary theory, national income theory and international economics. It also covers governmental policies arising out of the problems of the structure of industry, economic stability, and monetary policies, and banking institutions.

Prerequisite(s): None
Corequisite(s): None
Pre/Corequisite(s): None

MGT 253 - Small Business Management

3 Credit(s)
This course explores the significant problems encountered by entrepreneurs who manage their own small business. Solutions are offered to general financial and personal management challenges, capital needs and funding, advertising and markets, credit and inventory controls and pricing accounting problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101.

Spring Semester (15 Credits)

BA 265 - Business Communications

3 Credit(s)
This course provides the student with skills needed to communicate effectively and efficiently in today's workplace. Topics include the following: planning, organizing, and formatting business messages; applying the six C's to correspondence; composing messages using the direct, indirect, and persuasive approaches; creating media communications such as newsletters, agendas, and minutes; conducting the job search—resume, cover letter, follow-up letters and interviewing techniques. This course will include brief oral presentations.

Pre/Corequisite(s): ENG 101 and, CIT 117 or CIT 120 .

CIT 107 - Excel

3 Credit(s)
This course provides a comprehensive presentation of Excel and meets the requirements of the Microsoft Certified Application Specialist exam for Microsoft Office Excel. Topics include developing spreadsheets with numeric data, text data, and functions, formatting data, creating charts, managing large amounts of data, working with multiple worksheet applications, using data analysis tools, templates, and sharing data.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

MATH 109 - Mathematics of Business and Finance

3 Credit(s)
This course introduces students to the mathematical concepts and skills used in business operations and personal financial management. Emphasis is placed on developing the ability to perform arithmetic operations, apply percent and proportion concepts, solve equations, and use business-related formulas to make practical financial decisions. Topics include whole numbers, decimals, fractions, percents, ratios, payroll, taxes, interest, present value, compound interest, banking transactions, discounts, depreciation, and financial statements. Students will compute wages, analyze loans and investments, and solve real-world problems involving retail, sales, and taxation.

Pre/Corequisite(s): Satisfactory math placement or MATH 109S and satisfactory reading placement or ENG 097 or ENG 101 or ENG 115 .

MKT 230 - Principles of Marketing

3 Credit(s)
This course emphasizes the operational and strategic planning aspects of marketing. Customer-driven, value-added strategies, product life cycles, product positioning, logistics, personal selling, and the Marketing Mix (product, price, place, and promotional) are examined. Concepts are applied in a required project.

Prerequisite(s): Satisfactory reading and writing placement of ENG 097.
Pre/Corequisite(s): ENG 101.

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Substance Abuse Intervention Technician, C.A.S

Major Code: 398

The Substance Abuse Intervention Technician CAS prepares students to work with individuals and families experiencing or affected by substance abuse problems and other co-occurring behavioral or mental health issues. Students will learn about working with clients, and acquire skills needed to apply theories used in psychology, social work, and substance use disorders to help individuals and families recover from substance abuse & addiction and prevent relapse. A 2.0 GPA is required for acceptance into this program.

This program allows students to complete a certificate quickly to prepare to work in the fields of substance abuse, social work, or mental health in a treatment facility. Students who complete this certificate under the federal grant referenced below, who have worked or currently work in the field of Substance Abuse Intervention and have completed a certain number of clinical, internship, or on the job hours in assessment, diagnosis, treatment, recovery, & education under the direct supervision of a licensed or certified Substance Use Disorder treatment professional may be eligible for an Apprenticeship Certificate through the Department of Labor or through state certification boards.

For students who have also had a successful personal recovery experience, it will fulfill the eligibility requirements of the WV Certification Board for Addiction & Prevention Professionals (WVCBAPP) to sit for the exam to become credentialed as peer recovery support specialists (PRSS) in West Virginia.

It also fulfills some of the requirements for students who wish to pursue the Associate in Applied Science Degree (AAS) for Substance Abuse Intervention Specialists, or can serve as a foundation for students who eventually may wish to pursue a Bachelor's or Master's degree in Social Work, Psychology, Counseling, Mental Health/Addiction studies, or related fields.

This project is supported by a grant from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant # T26HP394640100, "Opioid Impacted Family Support Program". This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government."

Students successfully completing and receiving a Certificate in Substance Abuse Intervention Technician should be able to:

- Explain the philosophies of Alcoholic's Anonymous and Narcotics Anonymous*
- Describe history, concepts, theories and strategies used in psychology & human services delivery systems.*
- Identify psychoactive substances and their effects on the user*

- Explain issues related to the needs of different types of clients with substance use disorders*
- Demonstrate professionalism and apply medical, legal, and discipline-based ethics in clinical settings by successfully completing practicums.*
- Describe the skills, techniques, strategies, and abilities used for assessing, treatment planning, and therapeutic communication with clients in individual or group settings*
- Describe concepts related to equity and inclusion for individuals from diverse backgrounds and ability levels*

*Returning students who completed certain courses (HS 100, HS 101, HS 147, HS 150, HS 200, HS 210, BIO 114, AHS 103, AHS 110, HPE 110) more than 5 years prior to entering this program will be asked to repeat those course(s) to ensure that their knowledge & skills are current in the field.

Graduates of this program can expect to be employed in substance abuse treatment facilities or other human services agencies in positions which do not require Associate or Bachelor's degrees as peer recovery support specialists, behavior specialists, case aides or caseworkers, or as mental health or crisis intervention technicians. To become a prevention specialist or certified addictions counselor, social worker, or similar professional, students with this certificate will need to continue their education by earning an Associate or Bachelor's degree.

The employment outlook for these jobs currently is above average but is dependent upon changing needs within the local region, other regions and the nation.

Salaries are moderately low compared to other fields. Pay depends on the location and type of agency and on the prospective employee's level of education and work experience.

Important information: If the student has ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing board and agencies, which require criminal background checks on potential employees and students may deny employment or placement in certain settings, even if all academic requirements have been completed. A student who has been convicted of a felony or misdemeanor should contact the Program Director.

Job Titles: Peer Support Specialist, Family Service Worker, Direct Services Worker, Mental Health Technician

Wage and Employment Trends:

- $13 to $15 an hour (Payscale.com, 2020)
- 22% growth in the next four years; faster than average (SAMHSA, 2019)

CIP Code: 51.1501

First Semester (16 Credits)

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.

Or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

HS 100 - Intro to Social Work & Human Services

3 Credit(s)
This course introduces students to the profession of social work and human services and covers the development, philosophy, and mission of social work services. It illustrates the concepts and values of these helping professions and the roles played by individuals working in human services. It also provides an introduction to professional values & ethics, therapeutic communication skills, and interpersonal skills & abilities needed for individuals to be effective in this field.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

HS 101 - Understanding Group Processes and Dynamics

3 Credit(s)
This course covers aspects of group processes and dynamics as they relate to facilitating service delivery to groups of people in human services settings. Focus is on forming a group, understanding how groups function, elements that affect group processes and developing an understanding of how to effectively assist with the responsibilities of designing and facilitating a therapeutic group.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105

HS 205 - Human Services Seminar

1 Credit(s)
This course is a combined lecture and seminar, which prepares students in the Human Service AAS or the Substance Abuse Intervention CAS or AAS programs for their practicums and internship or field experience the following semester. Students will review important concepts, skills and abilities and cover topics necessary for the student to be successful in field experience. Students may be required to complete a criminal background check, drug screening, or additional training by the sponsoring agency to determine their eligibility for field experience. Topics covered will include: codes of ethics for paraprofessionals in human services including legal practice issues, professionalism, agency expectations of students, resume writing, interviewing skills, and finding an appropriate agency in which to do the practicum or internship/field placement.

Pre/Corequisite(s): HS 100 , HS 101 , HS 210 and PSYC 105.

HS 210 - Intro to Case Management & Counseling

3 Credit(s)
In this course students will gain knowledge of the different theories relevant to the fields of social work, human services, and counseling, and the practices, skills, and techniques used in the helping professions. It will focus on working with different client populations and practice settings, and special considerations involved with providing crisis intervention, behavior management, and other specialized services. It will also focus on record-keeping,

documentation, and understanding how to resolve dilemmas involving professional values and ethics. Class format will be lecture, discussion, role play, demonstrations, and experiential activities.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 and HS 100 and PSYC 105 or permission of the instructor.

PSYC 105 - Introduction to Psychology

3 Credit(s)
This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the life span and biological states as they affect behavior also are studied.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 .

Second Semester (12-13 Credits)

HPE 110 - CPR and First Aid

1 Credit(s)
This course is designed to introduce students to the principles of emergency care for first responders. Students will learn to respond in an emergency situation and provide immediate lifesaving care until more definitive medical care can be provided by health care professionals. Care of the victim will include an initial assessment, administration of first aid and cardiopulmonary resuscitation when needed for adults, children and infants.

HS 150 - Introduction to Substance Abuse

3 Credit(s)
This course surveys the nature and scope of substance abuse in the United States, with an emphasis on substance abuse and/or addiction related to legal or illegal substances, including alcohol, cocaine, heroin and other opiates, hallucinogens, and synthetic drugs. Course topics include the historical background of substance use, the possible causes of substance abuse problems and diagnosis and evidence-based treatment, including new methods for treating overdoses and withdrawal. This course alone does not qualify people to diagnose or treat substance abuse problems.

Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101 or ENG 115

- Math Core Requirement* 3-4 Credit(s)

PSYC 200 - Abnormal Psychology

3 Credit(s)
This course exposes students to past and current research regarding concepts of "abnormal" behavior and the processes of clinical assessment and diagnosis. Topics covered include the etiology, treatment and management of developmental anxiety, mood and personality disorders, schizophrenia and mental retardation. This course is not designed to train people to diagnose or treat psychological disorders.

Prerequisite(s): PSYC 105.

SA 100 - Peer Recovery Support Specialist (PRSS) Ethics

1 Credit(s)

This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.This course covers the important elements of the code of ethics for Peer Recovery Support Specialists (PRSS) as defined by national and state certification boards. Major topics include: recovery support relationships, core values for professionals in the recovery community, ethical issues involving practice, confidentiality, privacy, technology, boundary management, and applying the PRSS code of ethics to case scenarios.

Prerequisite(s):

HS 100 , HS 210 with a grade "C" or better
Corequisite(s): None
Pre/Corequisite(s): HS 150 , SA 200

SA 200 - Substance Abuse Practicum/Clinical Experience I

1 Credit(s)
This course is both a clinical practicum experience and a seminar which requires a total of 162 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 1 hour (8 contact hours) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. Before beginning the clinical experience, students must apply to and be accepted by the agency in which the work will be done.

Prerequisite(s): HS 100, HS 101, HS 147, and HS 210, PSYC 105 and HS 205 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include: a criminal background check and/or drug screening.
Pre/Corequisite(s): AHS 110, HPE 110, HS 150, HS 200, and PSYC 200

Third Semester (2 Credits)

SA 201 - Substance Abuse Practicum/Clinical Experience II

2 Credit(s)
This course is the second practicum/clinical experience and seminar which requires a total of 332 contact hours at an appropriate social services agency working with individuals & families who have or are being impacted by substance abuse problems. Students are supervised by a WVNCC faculty member and an agency professional. The corresponding in class meetings occur every other week for 2 hours (8 hours total) to provide students with an opportunity to discuss the clinical experience with other students, and to monitor and evaluate the student's progress. They are to apply, utilize, and demonstrate knowledge, skills, and abilities gained in their technical courses.

Prerequisite(s): AHS 110, HPE 110, HS 150, HS 200, PSYC 200 and SA 200 with a "C" or better AND permission of the program director. Students may also be required to meet other criteria for entry into the clinical experience that may include but are not limited to: a criminal background check and/or drug screening, recommendations from faculty and agency representatives.

Total Credits 30-31

*Students who eventually plan to tranfer should take MATH 210 to maximize transferability into bachelor's degree programs in social work or psychology.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

General Education (Math) Requirement

Associate in Applied Science General Education Math Core Requirement

Welding: Oil and Gas Pipe, C.A.S.

Major Code: 239

The Oil & Gas Pipe Welding program is designed to prepare an individual with the advanced skills needed for the ever changing job market. Students in the program will weld pipe utilizing Shielded Metal Arc Welding (SMAW) in all positions to American Welding Society (AWS) standards. All technical courses in the program provide extensive hands-on experiences.

The Oil & Gas Pipe Welding program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advanced standing and should confer with program faculty and/or advisors about processes to obtain advanced standing.

Upon completion of this program, graduates will be able to:

- Communicate effectively in oral and written formats.
- Demonstrate problem-solving and critical thinking skills.
- Employ mathematical and science literacy skills.
- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld pipe in the 5G and 6G positions using SMAW in the downhill progression
- Demonstrate how to read and identify drawings, prints and symbols.
- Demonstrate the ability to layout and cut pipe manually for branch and butt joints.

Job Opportunities: Graduating students will have the skills necessary to find work as a construction pipe welder, pipeline welder, or facility maintenance welder in a variety of settings. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

Wage and Employment Trends:

- According to the Bureau of Labor Statistics (BLS), oil and gas pipe welders earn an average annual salary of $40,000 to $80,000 per year.
- The employment outlook is currently above average at the regional, state, and national levels.

CIP Code: 480508

Fall Semester (16 Credits)

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

ENG 101 - College Composition I

3 Credit(s)
This course focuses on the fundamentals of expository writing and various rhetorical strategies while introducing proper quotation, paraphrase, and summary of sources. Students will read and compose summaries, essays, and a position/argument paper. Students are expected to possess a command of sentence and paragraph structure.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.
Corequisite(s): Satisfactory reading and writing placement or ENG 101S.
or

ENG 115 - Technical Writing

3 Credit(s)
This course covers various types of practical writing, formal and informal, which can be applied to individual student career goals. Assignments normally include a résumé; letters of inquiry, complaint or application; summaries; memos; proposals; instructions and reports including an oral report. Students identify reporting strategies, methods and forms of presentation.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097.

MATH 108 - College Algebra

4 Credit(s)
College Algebra is a course that consists of the algebraic, graphic, numeric, and modeling approach to the study of polynomials, equations, inequalities, and functions, with or without technology, and with appropriate symbolic manipulation skills. It includes the use of appropriate mathematical language, including symbolism, to define, evaluate, and analyze the characteristics of functions.

Prerequisite(s): Satisfactory math placement or MATH 101 .
Pre/Corequisite(s): Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115 .
or

MATH 113 - Technical Mathematics

4 Credit(s)
This course is designed to develop the mathematical skills needed by students in career-technical programs. The course includes a review of number concepts and operations, measurement and data-handling, algebraic expressions, graphing, systems of equations, and right triangle trigonometry. This course can be taken as a standalone math course requirement.

Pre/Corequisite(s): Satisfactory math placement or MATH 113S .

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

Spring Semester (14 Credits)

APT 110 - Introduction to Print Reading

3 Credit(s)
This course provides an introduction to reading and interpreting machine shop symbols, welding blueprints, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication, and assembly. Applies basic mathematics to the solution of print and performance problems.

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

2 Credit(s)
This course trains the student in proper and safe ways to use lifting equipment and rigging hardware in the handling of machinery, supplies, and loads.

Prerequisite(s): Satisfactory reading and writing placement or ENG 097 and MATH 113 .
Pre/Corequisite(s): ENG 101

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (30)

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Flexible Degree

Occupational Development, A.A.S.

Northern recognizes training from approved U.S. Department of Labor Bureau of Apprenticeship Training (BAT) programs towards an associate degree. Required courses of study for eligible programs are determined by agreements between the College and the apprenticeship program. Individuals must be enrolled in or have completed the approved apprenticeship program in order to be eligible to enroll in this program.

Those BAT apprenticeship programs which are currently available for the occupational development program are:

- Building and Construction Trades with the Upper Ohio Valley Building and Construction Trades Council AFL-CIO. **Major Code: 403**
- Child Development Specialist with Northern Panhandle Apprenticeship Council. **Major Code: 404**
- Plumbers and Steamfitters with Wheeling Plumbers and Steamfitters Joint Apprenticeship Committee. **Major Code: 402**

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Demonstrate an understanding of technical skills required in the specific occupational area through the successful completion of an approved apprenticeship training program.

There are three components to the program:

1. General education courses are offered by the College.
2. Technical specialty courses, including classroom instruction required by the specific apprenticeship program, which may be supplemented by college courses in some cases.
3. On-the-job training is part of the apprenticeship program and is awarded credit under agreements negotiated by the partners.

Specific agreements, which list course requirements for each component are available from the College Counselors or the Vice President of Economic and Workforce Development.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP Code: 309999

General Education Core Requirements

Associate in Applied Science General Education Requirements

Skilled Trades, A.A.S.

Northern recognizes training from approved apprenticeship programs registered with the U.S. Department of Labor Office of Apprenticeship as applicable toward an Associate of Applied Science in Skilled Trades. This program allows individuals who are currently enrolled in or have completed a registered apprenticeship to combine their apprenticeship training with college-level coursework to earn an associate degree.

Program requirements are established through agreements between the College and participating apprenticeship programs. Students complete general education coursework through the College while receive academic credit for the technical instruction and on-the-job training complete throught their apprenticeship program. Eligible students may utilize funding available through the Skilled Trades Apprenticeship Nontradtiional Degree (STAND) initiative to support completion of required general education coursework.

There are three components to the program:

1. General education courses are offered by the College.
2. Technical specialty courses, including classroom instruction required by the specific apprenticeship program, which may be supplemented by college courses in some cases.
3. On-the-job training is part of the apprenticeship program and is awarded credit under agreements negotiated by the partners.

Upon completion, graduates will be able to:

1. Use written and verbal communication skills in the workplace.
2. Apply interpersonal skills in the workplace.
3. Apply principles of mathematics and science to contemporary issues in society and in the workplace.
4. Complete an approved apprenticeship training program using the technical skills required in the specific occupational area.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

CIP 46.0000

General Education Core Requirements

Associate in Applied Science General Education Requirements

Technical Studies, A.A.S.

Major Code: 456

Northern works with employers or agencies to develop programs that incorporate training from the sponsor and combine it with general education and technical training provided by the College to offer an associate's degree.

Students must be employees or clients of the sponsor to be eligible for enrollment in this program. Required courses are specified in agreements between the College and the sponsor.

Major Code: 451

Currently there is a Technical Studies degree available as a Child and Family Specialist with Northern Panhandle Headstart of West Virginia.

Upon completion of the program, graduates will be able to:

- Effectively use both written and verbal communication skills in the workplace.
- Demonstrate knowledge of interpersonal skills and their application in the workplace.
- Apply principles of mathematics and science to contemporary issues in society and in the workplace.
- Demonstrate an understanding of technical skills required in the specific occupational area.

The Technical Studies program generally has four components:

- General education core.
- Technical core.
- Technical specialty.
- And in addition, some programs have an on-the-job training component.

Specific agreements that list course requirements for each component are available from the College Counselors or the Vice President of Economic and Workforce Development.

IMPORTANT GRADUATION INFORMATION: ORNT 090 is a graduation requirement. See your advisor to determine if you have met this requirement.

Refer to General Education Core Requirements for the Associate in Applied Science Program listed below for acceptable core requirements.

CIP Code: 419999

General Education Core Requirements

Associate in Applied Science General Education Requirements

Advanced Skills Set

Welding: Combination Pipe, Advanced Skills Set Program

Major Code: 739S

The Combination Pipe Welding Advanced Skills Set Program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld pipe in various processes in all positions to AWS (American Welding Society) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW).

The Combination Pipe Welding Program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advance standing and should confer with program faculty and/or advisors about processed to obtain advanced standing.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld pipe in all positions using SMAW to AWS standards.
- Demonstrate ability to weld fillet and butt welds in all positions on both plate and pipe, utilizing GTAW to AWS standards.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $40,000 to $80,000 for Combination Pipe Welder. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

CIP Code: 480508

Spring Semester

WELD 115 - Fabrication Drawing & Fitter Skills

3 Credit(s)
This course will provide an introduction to reading and interpreting welding print symbols, welding blueprints, isometric drawings, P&ID's, and working drawings used in trades and crafts. Focus is on dimension, shape, fabrication and assembly. Applies basic mathematics to calculate take offs, make material cut list, and provides the students the skills needed to properly layout and fabricate their work.

WELD 112 - Advanced Shielded Metal Arc Welding

6 Credit(s)
This course continues SMAW welding on pipe to become proficient in 2G, 5G, and 6G welding on pipe. Welds will be tested to AWS standards.

Pre/Corequisite(s): WELD 102

WELD 206 - Beginning TIG

3 Credit(s)
In this course students will be introduced to gas tungsten arc welding (GTAW or TIG) with an emphasis on safety, machine set-up, filler rods, and shielding gas identification. Students will produce beads, bead patterns and joints in all four positions. Students will perform welds on plate without backing.

WELD 208 - Advanced TIG

3 Credit(s)
In a continuation of WELD 206, students will continue to develop advanced skills in TIG welding. Students will perform welds in all four positions on plate and on pipe.

Pre/Corequisite(s): WELD 206.

WELD 225 - Downhill Pipe Welding

3 Credit(s)
This course will provide the students with a thorough understanding of downhill pipe welding procedures and weld

quality. It provides training to develop skills necessary to produce quality welds on open root carbon steel pipe in the 5G and 6G positions, using E6010 and E8010.

Pre/Corequisite(s): WELD 112

Total Credits (18)

These classes will take 15 weeks to complete and will require a commitment of 7 am - 2 pm, Monday through Friday, during the spring semester. Upon completion of these classes, students will receive 18 college credit hours or 45 CEU's depending on the student's needs. This program is not eligible for Title IV financial aid. Options are available to take additional general education requirements to obtain a college certificate or degree.

Welding: Structural Steel, Advanced Skills Set Program

Major Code: 738S

The Structural Steel Welding Advanced Skills Set Program is designed to prepare individuals with advanced welding skills that make them ideal candidates for employment for a wide range of industrial settings. Students in the program will weld plate in various processes in all positions to AWS (American Welding Society) standards. All technical courses in the program provide extensive hands-on experiences. Students will have a broad based foundation in welding that includes Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Metal Arc Welding (GMAW).

The Structural Steel Welding Program has been designed as an integrated program of study with secondary (high school) programs in the College's service area in West Virginia. Students completing a secondary program may be eligible for advance standing and should confer with program faculty and/or advisors about processed to obtain advanced standing.

In addition to General Education Outcomes, upon completion of this program, students will be able to:

- Demonstrate safe practices in all welding activities.
- Demonstrate ability to weld fillet welds in all positions on structural steel plate using SMAW to AWS standards.
- Demonstrate ability to weld fillet welds in all positions on structural steel plate using GMAW to AWS standards.

The employment outlook is currently above average at the regional, state, and national levels. Bureau of Labor Statistics (BLS) report an average annual salary of $30,000 to $75,000 for Structure Steel Welder. Career opportunities are available in a number of industries including manufacturing, fabrication, oil and gas, construction, and equipment maintenance and repair.

CIP Code: 480508

Fall Semester

APT 103 - Safety Hazard Recognition

2 Credit(s)
This course introduces basic safety instruction including OSHA requirements in addition to other industrial safety concerns. Emphasis is placed on developing knowledge and skills and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues.

APT 104 - Safety Applications

1 Credit(s)
This course introduces basic safety applications including SafeLand requirements in addition to other industrial safety concerns. Emphasis is placed on applying safety knowledge and skills to a specific type of work environment and reinforcing attitudes and behaviors necessary for safe and environmentally sound work habits. Topics include application of safety, health, personal protective equipment, stewardship of the environment, and regulatory compliance issues to a specific type of work environment.

WELD 102 - Basic Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and setup procedures for the shielded metal arc welding (SMAW) process and teaches basic applications. Students weld fillet welds and basic groove welds in each of the four welding positions using different electrodes.

WELD 110 - Intermediate Shielded Metal Arc Welding

3 Credit(s)
This course presents the nomenclature and set-up procedures, for shielded metal arc welding (SMAW) process and teaches basic groove welds in each of the four welding positions using different electrodes. Students will become proficient at groove welding with and without backing

Pre/Corequisite(s): WELD 102

WELD 202 - Beginning MIG

3 Credit(s)
This course introduces students to the safety, nomenclature and set up procedures for gas and metal arc welding (MIG). Students will perform open Single-V-Groove welds on plate without backing. Students will weld in all four positions. Additional topics include wire specifications, joint design, shielding gasses, and production of beads and joints.

WELD 210 - Flux Core Welding

3 Credit(s)
Students will learn the safety, nomenclature, set up procedures and techniques associated with flux core arc welding. Students will weld on pads in each of the four positions. Techniques will include beads, lap joints, tee joints and butt joints.

Total Credits (18)

These classes will take 15 weeks to complete and will require a commitment of 7 am - 2 pm, Monday through Friday, during the fall semester. Upon completion of these classes, students will receive 18 college credit hours or 45 CEU's depending on the student's needs. This program is not eligible for Title IV financial aid. Options are available to take additional general education requirements to obtain a college certificate or degree.

Microcredential

PC Technician Microcredential

The PC Technician Microcredential prepares learners for entry-level roles in IT support by building core skills in operating systems, hardware, networking, and troubleshooting. Through hands-on coursework aligned with CompTIA A+ and Network+ competencies, students learn to assemble and configure computers, diagnose technical issues, secure systems, and support end users in modern IT environments. This short, stackable credential is ideal for career changers, entry-level job seekers, and students pursuing IT pathways who want a fast, industry-aligned route into the technology workforce.

Upon completion, graduates will be able to:

1. Demonstrate competency in one of the fundamental concepts including and not limited to operating systems, hardware and software applications.
2. Demonstrate competency in using one or more of the following including and not limited to hardware and software components of a computer.
3. Apply problem-solving and critical thinking skills.
4. Troubleshoot issues in computer applications.
5. Apply principles of building, repairing, documenting and upgrading components or applications of a computer.

Fall Semester

CIT 105 - Operating Systems

3 Credit(s)
This course is designed as an introduction to operating systems. It is intended for students with a basic background in computing systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today.

CIT 123 - A+ Hardware Essentials

3 Credit(s)
This course is designed to promote in-depth understanding of computer components and troubleshoot issues that arise during or post installation by, having hands-on labs and exercises to experience tearing down, documenting and successfully rebuilding a personal computer. Course will also include security, system hardening, social engineering, malware detection and removal, and basic disaster recovery management concepts.

CIT 142 - Networking Essentials

3 Credit(s)
This course is designed to help students understand the fundamental concepts of networking with emphasis on routing and switching techniques. This course covers the concepts of OSI model and TCP/IP model, need for network security and different types of networks and their implementations.

Spring Semester

CIT 184 - Network + Fundamentals of Networking

3 Credit(s)
This course focuses on wide variety of networking concepts starting from network fundamentals, implementations,

operations, security, and troubleshooting. It will aid students' preparation for CompTIA Network+ certification.

Prerequisite(s): CIT 142 or CIT 123
Pre/Corequisite(s): CIT 142

Total Credits (12)

Division of Continuing Education and Workforce Development

The Division of Continuing Education and Workforce Development is committed to providing a skilled and trained workforce for our local business and industry partners. Our staff addresses local workforce needs for emerging, existing, and entrepreneurial businesses through customizable programs and training courses which includes certification and pre-employment testing. We provide consultation on training needs and deliver high quality and cost-effective training.

Customized Contracted Instruction

The College offers local businesses, industries and organizations customized credit and non-credit courses, short-term workshops, and seminars to meet their needs. Instruction can cover a broad array of topics and can be delivered on-site or at one of the Northern campuses. Employers realize significant savings because costs are directly related to instruction. For information, contact the Executive Director of Business Services and Contract Training at 304-214-8975. Several initiatives we can deliver to align education and training with an employer's needs are:

- **Workplace Skill Set Programs:** These are short-term programs or courses, designed to deliver skills needed for success in the workplace, focused on specific employment areas. These programs include only the skills needed and require less time for completion than a traditional degree or certificate program. However, most of these programs are designed so that they can be used as part of the requirements for a degree program, creating a pathway toward degree completion for interested individuals.
- **Apprenticeships:** WVNCC partners with the U.S. Department of Labor, Bureau of Apprenticeship Programs, on several industry apprenticeships. We can assist with the development of a program, related training instruction, and will work with employers according to their on-the-job training requirements.
- **Flexible Degree Programs:** *(more detailed information on the following 2 programs can be found under the Academic Program section of this catalog)* Northern offers flexible degree programs which are designed to credential the training and education individuals obtain outside a normal degree program or from non-collegiate providers.
    - Technical Studies A.A.S.: This program is designed to provide cooperative educational opportunities leading to associate degrees for students participating in education and training programs sponsored by business, industry, labor, government, or other agencies. Required components in the program include general education, classroom instruction in a technical core, and in the occupation area. College credit may be awarded for on-the-job training and/or supervised work-based learning.
    - Occupational Development A.A.S.: This program is developed through an agreement with the US Department of Labor Bureau of Apprenticeship Programs and an employer to create a degree program curriculum that will include student learning in three areas: general education, classroom occupational training, and on the job training (OJT). A minimum amount of general education is required, and the amount of classroom occupational training will be determined by the number of classroom contact hours required in the Registered Apprenticeship Program (RAP). On the job training may be credited; a statement of the total number of OJT contact hours experienced by the RAP participants also may be placed on the student's college record (according to state-established guidelines).

Career Development Courses

WVNCC offers courses for those seeking career training, professional development and certification training. These courses are short term career prep options that are outside of the traditional one- or two-year degree credit options. However, many are set up in a pathway so if a person wishes to continue to a traditional credit (degree) program, they have the option.

Career Development courses are offered in person, online and hybrid, depending on the topic and course requirements. They are set up to help you gain experience and knowledge in your chosen field. Please contact the Continuing & Community Education Program Manager at 304-214-8969 or visit our website for more information.

Online Continuing Education Courses

In addition to the above courses, Northern offers online courses through partnerships with ed2go, 360 Training, and other providers. Students may take a variety of courses at their convenience. Please contact the Continuing & Community Education Program Manager at 304-214-8969 or visit our website for more information.

Testing Center

Northern has contracts with multiple national and state licensing agencies to provide testing in a proctored facility. These are industry testing, pre-employment testing, certifications, and licensing exams. For further information or to schedule a test, please contact the Testing Center at 304-214-8969 or go to our website for a list of our test offerings.

Personal Enrichment

Northern offers courses and seminars for personal enrichment, cultural interests, and educational pursuits through community education programming. For information about courses or to request specific offerings, please contact the Administrative Assistant at 304-214-8968 or visit our website for more information.

Small Business Development Center (SBDC)

The SBDC provides consultation, training, and problem-solving services to existing, potential and start-up small businesses within the College's six-county service area. Services provided by the department include assistance with business plans, loan applications, and networking with local and state agencies as well as businesses to access available resources. The SBDC office is located on the Wheeling Campus, but the Program Manager regularly meets with clients in Weirton, New Martinsville and in other communities throughout the district. Please contact the SBDC Representative Donna Schramm at 304-214-8973 for more information.

Workforce Innovation and Opportunity Act (WIOA)

WVNCC partners with the Northern Panhandle Workforce Development Board to ensure West Virginia's unemployed, underemployed, and dislocated workers have opportunities to train/retrain in a community college setting. These educational programs are limited to state approved programs. WIOA participants are also eligible for other forms of financial aid, including Pell Grants and work study. All applicants must first be certified eligible by the Northern Panhandle Workforce Development Board – 304-232-6280. College financial aid questions should be directed to the financial aid office at (304) 233-5900 ext. 8844.

HEAPS Grant – Workforce Development Component

The West Virginia Legislature established a Higher Education Adult Part-time Student (HEAPS) Grant Program to address the needs of students who pursue programs of postsecondary education on a part time basis in high demand workforce-oriented programs. Students must demonstrate financial need plus meet other qualifications as established in the legislation. The Workforce Development staff and Financial Aid staff at WVNCC will assist students with this program. Please call the Financial Aid office at 304-214-8844 or the Workforce Development Office at 304-214-8968.

Learn and Earn

The WV Community and Technical College System offers a grant program through the state community colleges called the Learn and Earn. Through this grant program, Northern partners with West Virginia businesses, industries and organizations to employ traditional college students as paid interns to assist in meeting the company's workforce needs. Companies may be eligible for a grant to cover a portion of the cost of the interns' salary, based on state-established regulations. In return, those students will earn college credit in their degree program and valuable on the job work experience. Contact the Executive Director of Business Services and Corporate Training for additional information.

Course Descriptions

Accounting

ACC 122 - Principles of Accounting I

ACC 123 - Principles of Accounting II

ACC 205 - Cost & Managerial Accounting

ACC 222 - Computerized Accounting

ACC 224 - Intermediate Accounting I

ACC 225 - Intermediate Accounting II

ACC 240 - Business Taxation

ACC 250 - Accounting Capstone

Allied Health Sciences

AHS 102 - Electronic Health Records

AHS 103 - Medical Terminology

AHS 108 - Disease Process Applications

AHS 110 - Medical Legal/Ethical Issues

Applied Technology

APT 100 - Introduction to Applied Technology

APT 103 - Safety Hazard Recognition

APT 104 - Safety Applications

APT 110 - Introduction to Print Reading

APT 112 - Introduction to Welding

APT 150 - Hydraulic and Pneumatic Fundamentals

APT 155 - Electrical and Electronic Fundamentals

APT 201 - Instrumentation Process Technology: Equipment

APT 230 - Supervisory Control and Data Acquisition

APT 240 - Commercial & Industrial Wiring

Art

ART 150 - Art Appreciation

ART 256 - Creative Expression in Art and Design

Advanced Manufacturing Technology

AMT 101 - Modern Manufacturing: Processes and Robotics

AMT 110 - Computer Numerical Control (CNC) Manufacturing

AMT 201 - Advanced Manufacturing & Automation

Astronomy

ASTR 125 - Introduction to Astronomy

Biology

BIO 105 - Principals of Biology for Science Majors

BIO 110 - Principles of Biology

BIO 112 - Plant Biology

BIO 113 - Animal Biology

BIO 114 - Anatomy and Physiology I

BIO 115 - Anatomy and Physiology II

BIO 117 - Microbiology

BIO 130 - Basics of Human Anatomy and Physiology

BIO 204 - Local Flora

BIO 210 - Molecular and Cellular Biology

BIO 218 - General Ecology

BIO 220 - AP Health Care I

BIO 225 - AP Health Care II

BIO 227 - Applied Bioscience

BIO 230 - Internship

Business Administration

BA 090 - Keyboarding Skills for Information Processing

BA 100 - Introduction to Business

BA 223 - Business Finance

BA 240 - Business Law

BA 265 - Business Communications

BA 275 - Entrepreneurship

BA 280 - Business Internship

BA 285 - Accounting/Business Capstone

Chemical Operator Technology

COT 201 - Chemical Process Tech I: Equipment

COT 205 - Applied Chemistry for Chem Operator

COT 210 - Process Quality

COT 230 - Chemical Process Tech II: Systems

COT 235 - Chemical Process Unit Oper: Simulations

COT 250 - Chemical Operator Technology Seminar

Chemistry

CHEM 100 - Intro to General, Organic, and Biochemistry I

CHEM 101 - Intro to General, Organic, and Biochemistry II

CHEM 108 - General Chemistry I

CHEM 109 - General Chemistry II

CHEM 204 - Organic Chemistry I

CHEM 207 - Organic Chemistry II

CHEM 209 - Organic Chemistry Laboratory

Compressor Mechanic

CMEC 101 - Basic Engine Operations

CMEC 102 - Introduction to Gas Compressor Maintenance

CMEC 103 - Advanced Gas Compressor Maintenance

CMEC 104 - Engine Operations and Systems

Computer Information Technology

CIT 101 - Introduction to Cyber Security

CIT 105 - Operating Systems

CIT 106 - Principles of Ethical Hacking

CIT 107 - Excel

CIT 111 - Help Desk Concepts

CIT 112 - Access

CIT 117 - Microsoft Applications

CIT 120 - Microsoft Word I

CIT 121 - Microsoft Word II

CIT 123 - A+ Hardware Essentials

CIT 142 - Networking Essentials

CIT 159 - Microsoft Publisher

CIT 165 - PowerPoint with AI

CIT 176 - Visual Basic Programming

CIT 182 - PowerPoint Presentations

CIT 184 - Network + Fundamentals of Networking

CIT 185 - Database Design and SQL

CIT 187 - HTML/CSS

CIT 202 - Computer Support - Helpdesk/Applications

CIT 207 - Computer Applications Support

CIT 210 - SQL Server Administration

CIT 215 - JavaScript

CIT 217 - Game Development Fundamentals

CIT 218 - Microcontrollers and IoT

CIT 219 - Secure Computer User

CIT 220 - Unix/Linux

CIT 222 - Technology Ethics

CIT 232 - Introduction to Programming Logic

CIT 235 - Introduction to Cloud Computing

CIT 237 - Advanced Database Programming

CIT 241 - Microsoft Server Administration

CIT 245 - Information Security Fundamentals

CIT 247 - Windows PowerShell

CIT 250 - IT Analysis, Design, and Career Prep

CIT 255 - Cybersecurity Network Defense

CIT 256 - Collaborative Software Development

CIT 265 - Virtualization Concepts

CIT 272 - Object Oriented Programming/Data Structures

CIT 274 - Microsoft Server Setup and Troubleshooting

CIT 275 - Microsoft Server Administration and Virtualization

CIT 291 - CIT Internship and Certification

Criminal Justice

CRJ 104 - Introduction to Criminal Justice Systems

CRJ 110 - Criminalistics-Introduction to Forensic Science

CRJ 115 - Cyber Crimes Against Children

CRJ 201 - Introduction to Corrections

CRJ 205 - Case Studies and Readings in Criminal Justice

CRJ 206 - Criminal Justice Administration and Leadership Principles

CRJ 209 - Criminal Identification and Investigation

CRJ 220 - Criminal Law

CRJ 221 - Criminal Procedure

CRJ 225 - Terrorism and Homeland Security

CRJ 230 - Serial Killers and the Mafia History

CRJ 235 - Field Service

CRJ 245 - Introduction to Juvenile Justice System

CRJ 246 - Probation and Parole

CRJ 251 - Ethics in Criminal Justice

CRJ 276 - Criminology

Culinary Arts

CART 121 - Food Service Sanitation and Safety

CART 124 - General Nutrition

CART 125 - Essentials of Dining Services

CART 131 - Bakeshop

CART 145 - Elements of Commercial Food Preparation and Service

CART 151 - Meat, Poultry and Seafood Preparation

CART 159 - Basic Food Science

CART 175 - Advanced Food Science

CART 223 - Personnel Supervision for the Hospitality Industry

CART 231 - Pastry Preparation

CART 235 - American Cuisines

CART 240 - Garde Manger

CART 241 - Classical Cuisines

CART 245 - Menu, Purchasing and Cost Control

CART 251 - Culinary Internship

CART 275 - Senior Seminar

Early Childhood: Care and Education

ECCE 100 - Foundations of Education

ECCE 204 - Early Childhood Field Experience

ECCE 205 - Early Childhood Seminar

ECCE 208 - ECCE Field Experience

ECCE 212 - Child, Family, and Community

ECCE 214 - Child Observation and Assessment

ECCE 220 - Language and Literacy

Economics

ECON 104 - Principles of Macroeconomics

ECON 105 - Principles of Microeconomics

ECON 120 - International Economics

Electronics

EL 112 - Basic Principles of Electricity and Electrical Control Mechanisms

EL 113 - Industrial Electricity I

Energy

NRG 101 - Energy Transition Technology & Applications

Engineering

ENGR 100 - Introduction to Engineering Applications

ENGR 101 - Engineering Problem Solving I

ENGR 102 - Engineering Problem Solving II

ENGR 210 - Engineering Mechanics: Statics

ENGR 220 - Engineering Mechanics: Dynamics

English

ENG 097 - College Literacy

ENG 101 - College Composition I

ENG 101S - College Composition I Supplemental

ENG 102 - College Composition II

ENG 115 - Technical Writing

ENG 115S - Technical Writing Supplement

ENG 200 - American Literature Through the Civil War

ENG 201 - American Literature Since the Civil War

ENG 208 - Renaissance Drama

ENG 210 - English Literature Through the Eighteenth Century

ENG 211 - English Literature Since the Eighteenth Century

ENG 225 - Shakespeare - Comedies

ENG 226 - Shakespeare - Tragedies/Histories

General Science

GSC 100 - Science in the Contemporary World

GSC 205 - Applied General Science Capstone

GSC 210 - General Science Internship

Geography

GEOG 205 - World Geography

Health and Physical Education

HPE 100 - General Program in Physical Education

HPE 101 - General Program in Physical Education

HPE 105 - Personal Fitness

HPE 110 - CPR and First Aid

Health Information Technology

HIT 100 - Introduction to Health Information Technology

HIT 145 - HIT Professional Practice Experience (PPE) I

HIT 150 - Health Record Documentation

HIT 235 - Intermediate Medical Coding

HIT 240 - Quality Management and Performance Improvement

HIT 260 - Advanced Medical Coding

HIT 263 - Health Information Technology Seminar

HIT 265 - HIT Professional Practice Experience (PPE) II

History

HIST 100 - World Cultures I

HIST 101 - World Cultures II

HIST 110 - The United States to 1865

HIST 111 - The United States Since 1865

Hospitality and Tourism

HAT 150 - Meeting and Convention Planning

HAT 155 - Hotel/Lodging Mgt and Practicum

Human Services

HS 100 - Intro to Social Work & Human Services

HS 101 - Understanding Group Processes and Dynamics

HS 147 - Understanding Human Diversity

HS 150 - Introduction to Substance Abuse

HS 155 - Substance Abuse Treatment & Recovery

HS 200 - Social Welfare Institutions

HS 204 - Human Services Field Experience (Internship)

HS 205 - Human Services Seminar

HS 208 - HS Field Experience (Internship)

HS 210 - Intro to Case Management & Counseling

License Practical Nursing

LPN 110 - Fundamentals and Foundations of Practical Nursing

LPN 111 - Integrated Human Sciences

LPN 112 - Pharmacology for Practical Nurses

LPN 121 - Medical-Surgical Nursing I

LPN 122 - Nursing & Healthcare I- Practice, Issues & Trends

LPN 123 - Mental Health Concepts/ Geriatric Nursing

LPN 130 - Medical-Surgical Nursing II

LPN 131 - Maternal-Child Nursing

LPN 132 - Nursing and Healthcare II: Practice, Issues, Trends and NCLEX Review

Management

MGT 250 - Principles of Management

MGT 253 - Small Business Management

MGT 260 - Human Resource Management

Marketing

MKT 230 - Principles of Marketing

Mathematics

MATH 101 - Intermediate Algebra

MATH 101S - Intermediate Algebra Supplement

MATH 108 - College Algebra

MATH 109 - Mathematics of Business and Finance

MATH 109S - Math of Business and Finance Supplement

MATH 110 - Pre-Calculus Mathematics

MATH 113 - Technical Mathematics

MATH 113S - Technical Mathematics Supplement

MATH 115 - Mathematics for Health Sciences

MATH 115S - Mathematics for Health Sciences Supplement

MATH 116 - Mathematics Appreciation

MATH 204 - Mathematics for Elementary Teachers I

MATH 204S - Mathematics for Teachers I Supplement

MATH 205 - Mathematics for Elementary Teachers II

MATH 205S - Mathematics for Teachers II Supplement

MATH 210 - Introduction to Statistics

MATH 279 - Calculus I

MATH 280 - Calculus II

MATH 281 - Calculus III

Mechatronics

MEC 105 - Intro Computer Aided Drafting

MEC 115 - Instrumentation I: Mechanical

MEC 120 - Motors and Motor Controls

MEC 122 - Machine Maintenance and Installation I

MEC 130 - Fluid Power Basics

MEC 140 - Programmable Controllers I

MEC 222 - Machine Maintenance / Installation II

MEC 230 - Fluid Power Systems

MEC 232 - Pumps and Piping

MEC 235 - Instrumentation II Electrical

MEC 240 - Programmable Controllers II

MEC 251 - Problem Solving & Teamwork Seminar

Medical Assisting

MAS 125 - Basic Diagnostic and Procedural Coding

MAS 150 - Introduction to Medical Administrative Procedures

MAS 151 - Medical Financial Management

MAS 153 - Medical Insurance and Reimbursement Methodologies

MAS 155 - Medical Billing and Coding Applications

MAS 201 - Clinical Medical Assistant I

MAS 202 - Clinical Medical Assistant Skills Lab

MAS 210 - Clinical Medical Assistant II

MAS 211 - Clinical Medical Assistant Practicum

MAS 220 - Medical Assisting Seminar I

MAS 221 - Medical Assisting Seminar II

Medical Billing and Coding

MBC 100 - Revenue Cycle Management I

MBC 110 - Physician and Hospital Coding

MBC 125 - Revenue Cycle Management II

Medical Laboratory Technology

MLAB 111 - Introduction to Clinical Laboratory Science

MLAB 112 - Laboratory Analysis and Calculations

MLAB 131 - Introduction to Hematology

MLAB 132 - Urinalysis and Body Fluids

MLAB 133 - Hematology I/Urinalysis Clinical Practicum

MLAB 135 - Advanced Hematology and Hemostasis

MLAB 140 - Immunohematology Concepts and Procedures

MLAB 145 - Hematology II and Immunohematology Clinical Practicum

MLAB 213 - Clinical Microbiology, Immunology, and Serology

MLAB 221 - Clinical Chemistry

Mine Maintenance Technology

MMT 101 - Introduction to Mining

MMT 200 - Mine Maintenance I

MMT 205 - Mine Power Systems

MMT 220 - Mine Controls and Monitoring

MMT 225 - Electrical Certification Preparation Capstone

MMT 230 - Mine Maintenance II

Music

MUS 105 - Appreciation of Music

Nursing

NURS 111 - LPN to RN Transition Course

NURS 112 - Clinical Applications in Nursing Practice

NURS 132 - Drug and Dosage Calculations I

NURS 133 - Health Assessment and Diagnostics

NURS 134 - Introduction to Nursing Concepts

NURS 142 - Drug and Dosage Calculations II

NURS 144 - Nursing Concepts of Health and Illness I

NURS 234 - Nursing Concepts of Health and Illness II

NURS 244 - Synthesis of Nursing Concepts

NURS 245 - Professional Nursing and Health Systems Concepts

Orientation

ORNT 085 - Introduction to the College Experience

ORNT 090 - First-Year Seminar: Success Strategies

ORNT 101 - College 101 - College Transition

Patient Care Technician

PCT 101 - Patient Care Technician I

PCT 151 - Patient Care Technician II

Petroleum Technology

PTRM 100 - Appalachian Petroleum Industry & Career Options

PTRM 104 - Production Technology with Hands-On Lab

PTRM 107 - Rigging for Land-Based Oil and Gas Operations with Hands-On Lab

PTRM 109 - Drilling Technology with Hands-On Lab

PTRM 113 - Free Plunger Lift

PTRM 115 - Sucker Rod Pumping

PTRM 120 - Internship/Cooperative Work-Based Experience

PTRM 150 - Drilling/Completion Operations

PTRM 202 - Well Completions Design and Operations with Hands-on Lab

PTRM 206 - Applied Chemistry for Petroleum with Hands-on Lab

PTRM 208 - Artificial Lift with Hands-on Lab

PTRM 210 - Introduction to Midstream Gas Operations

PTRM 211 - Well Control with Hands-on Lab

PTRM 213 - Gas Measurement with Hands-on Lab

PTRM 215 - Electrical, Analog, & Digital Applications for Petroleum

PTRM 217 - Petroleum Geology of Appalachia

PTRM 219 - Hydraulic & Pneumatic Applications for Petroleum with Lab

PTRM 221 - Advanced Internship/Cooperative Work-Based Experience

PTRM 223 - Well Log Interpretation Lab

PTRM 225 - Well Servicing with Hands-On Lab

PTRM 227 - Pressure Pumping Operations

PTRM 229 - Off-Road Diesel Forklift/Manlift Operations for Petroleum with Hands-on Lab

PTRM 235 - Petroleum Technology Seminar

Philosophy

PHIL 200 - Introduction to Philosophy

Physics

PHYS 104 - General Physics I

PHYS 105 - General Physics II

PHYS 115 - Applied Physics

PHYS 120 - Calculus-Based Physics I

PHYS 121 - Calculus-Based Physics II

Political Science

POLS 102 - American National Government and Politics

Psychology

PSYC 105 - Introduction to Psychology

PSYC 155 - Human Relations

PSYC 200 - Abnormal Psychology

PSYC 208 - Developmental Psychology

PSYC 210 - Child Development

PSYC 218 - Exceptional Children

Radiography

RAD 100 - Introduction to Radiography

RAD 105 - Radiography I

RAD 110 - Radiation Protection/Radiobiology I

RAD 115 - Clinical Fundamentals I

RAD 120 - Radiography Procedures I

RAD 125 - Clinical Practice I

RAD 155 - Radiography II

RAD 160 - Radiation Protection/Radiobiology II

RAD 165 - Clinical Fundamentals II

RAD 170 - Radiography Procedures II

RAD 175 - Clinical Practice II

RAD 195 - Clinical Practice III

RAD 205 - Radiography III

RAD 210 - Advanced Imaging Modalities

RAD 215 - Clinical Fundamentals III

RAD 220 - Radiography Procedures III

RAD 225 - Clinical Practice IV

RAD 255 - Radiography IV

RAD 260 - Radiography Career Prep

RAD 265 - Clinical Fundamentals IV

RAD 270 - Radiography Procedures IV

Refrigeration, Air Conditioning and Heating Technology

RAH 100 - Basic Refrigeration I

RAH 101 - Basic Refrigeration II

RAH 102 - Refrigeration Controls

RAH 110 - HVACR Piping Skills

RAH 204 - Climate Control

RAH 206 - Heating Systems I

RAH 207 - Heating Systems II

RAH 209 - Forced Air Systems/Duct Layout

RAH 211 - Air Conditioning

RAH 220 - Hydronics

RAH 235 - Comfort Cooling

RAH 250 - Alternative Energy Concepts

RAH 260 - Certification Preparation

RAH 265 - Commercial Refrigeration

Respiratory Therapy

AHS 125 - ACLS/PALS/NRP

RETH 104 - Clinical Practicum I

RETH 105 - Basic Respiratory Therapeutics

RETH 106 - Clinical Practicum II

RETH 107 - Cardiopulmonary & Renal Anatomy & Physiology

RETH 109 - Cardiopulmonary Diag, Rehab, & Home Care

RETH 201 - Critical Care I

RETH 203 - Cardiopulmonary Pathology

RETH 204 - Cinical Practicum III

RETH 205 - Critical Care II

RETH 206 - Clinical Practicum IV

RETH 207 - Respiratory Therapy Seminar

Social Science

SS 207 - West Virginia and the Appalachian Subculture

SS 255 - The Global Community

Sociology

SOC 125 - Introduction to Sociology

SOC 126 - Social Problems

SOC 255 - Marriage and the Family

Speech

SPCH 101 - Interpersonal Communication

SPCH 105 - Fundamentals of Speech Communication

Substance Abuse

SA 100 - Peer Recovery Support Specialist (PRSS) Ethics

SA 200 - Substance Abuse Practicum/Clinical Experience I

SA 201 - Substance Abuse Practicum/Clinical Experience II

SA 204 - SA Field Experience (Internship)

Surgical Technology

ST 105 - Surgical Technology I

ST 115 - Clinical Practice I

ST 150 - Surgical Technology II

ST 155 - Clinical Practice II

ST 180 - Clinical Experience

ST 200 - Surgical Technology III

ST 210 - Clinical Practice III

ST 250 - Surgical Technology IV

ST 255 - Clinical Practice IV

ST 260 - Surgical Technology Seminar

Welding

WELD 100 - Basic Weld Inspection

WELD 102 - Basic Shielded Metal Arc Welding

WELD 110 - Intermediate Shielded Metal Arc Welding

WELD 112 - Advanced Shielded Metal Arc Welding

WELD 115 - Fabrication Drawing & Fitter Skills

WELD 202 - Beginning MIG

WELD 204 - Advanced MIG

WELD 206 - Beginning TIG

WELD 208 - Advanced TIG

WELD 210 - Flux Core Welding

WELD 215 - Metallurgy

WELD 220 - Layout and Fabrication

WELD 225 - Downhill Pipe Welding

Other Courses

RETH 101 - Introduction to Respiratory Therapy

RETH 103 - Cardiopulmonary Pharmacology

Student Services

Identification Cards

Identification cards are issued to all on campus students (new and returning) and all current college employees. Information on requirements for presentation and use of the card as well as the replacement of lost or stolen cards is listed in the Student Handbook which is available online on the College's website, or from the Human Resource Office or from the office of the VP of Student Care & Success or designee. The ID Cards are the property of WVNCC. Students are required to obtain a new validation sticker each semester (fall, spring and summer). The stickers are available from the Campus Service Center to registered students after the final last day to pay. ID cards allow a student access to College buildings and are needed for entry by all doors other than the main building door of each campus during published hours.

Textbooks

Registration Integration transmits a student's course registration from Northern's registration system directly to the bookstore. This enables students to order textbooks at the same time they register for their courses. When students click on the "Textbook" link, their course information is transmitted to the bookstore's website and students immediately see a list of the books they need for their courses, including price, and ISBNs.

Student Activities

The Office of Student Activities provides a diverse array of events and programs aimed at fostering social, academic, cultural, and civic engagement both on and off campus. Active participation in co-curricular activities, clubs, and organizations is seen as an essential component of a student's education. As such, we offer opportunities for students to gain hands-on leadership experience through positions such as the Student Government Association, opportunities to

became active in our vibrant communities through our Northern Leadership Institute and the ability to join (or create) a student club or organization. Furthermore, we organize a multitude of educational, cultural, and social student events held throughout the year.

Examples of events and programming offered through the Office of Student Activities:

- **Chicken Fest and Welcome Week Events –** We kick off each semester with a series of events to welcome students to our campus, including Chicken Fest, which is a celebration of unity and our mascot, The Thundering Chicken!
- **Educational Programming –** We feature presentations for Women's History and Black History Month, as well as offering additional programs for students to engage in the learning process.
- **Family Programming –** Each year, we offer a variety of family programs ranging from a Children's Winter Carnival and Secret Santa Program, to family movie nights.
- **Student Governance -** To stimulate personal leadership skills and student involvement with the operation of the College, the student governance structure consists of a college wide Student Government Association (SGA) composed of student senators from all three campuses. These students are elected by students each spring. The Tri-Campus Student Government Association is concerned with institutional policies and procedures as well as campus matters. All students are encouraged to participate.
- **Phi Theta Kappa** is an international academic honorary society for community college students. Established as the Omega Epsilon Chapter in 1973, this fraternity recognizes students who have maintained academic excellence, are of good moral character, and are outstanding citizens. Membership in this honor society is by invitation only. Candidates must have a 3.5 quality point average. The chapter sponsors various activities devoted to a leadership theme.
- **WVNCC Student Nurses Association** is an organization that aids students in the Nursing Program to develop professionally by sponsoring activities and programs that enhance classroom experiences.

Additional student clubs are the Criminal Justice Club, E-Sports Club, Computer Club, Energy Technology Club, Radiology Club, Bible Club, Astronomy Club, and the Campus Activities Board. Students interested in other areas can form clubs or organizations by presenting their interests to the Office of Student Activities or the campus advisor. All organizations must be advised by a member of full-time faculty or professional staff of West Virginia Northern and have individual constitutions. Specifics on forming a student organization are listed in the Student Handbook or can be obtained from the Office of Student Activities.

Career Counseling/Career Services

Offered through the ACTion Center

Career Services offers students assistance in making career decisions, exploring career options and conducting effective job searches. Services include, but are not limited to:

Career Advising

- Individual career advising including free career assessments that assist in the identification of work interests, abilities and values.

Career Coach

Career Coach from Lightcast is a tool you can use to explore your interests and related careers. From there, you can make sure you go into the WVNCC program best aligned with your identified goals.

- **Take Career Assessment**

Take a Career Assessment to learn about yourself and Career Coach will give you career suggestions based on your interests.

- **Browse Careers**

Browse or search for careers and we will give you relevant data on wages, employment, and the training you need.

- **Browse Programs**

Browse or search for the available Programs that lead to the career you want.

- **Build Your Résumé**

Our easy-to-use résumé builder will help you create a professional résumé. Sign Up and Build Your Résumé

- **Are You a Veteran?**

Find civilian careers related to your military occupation.Get Started with Military Search

Career Coach Privacy Policy

Career Resources and Occupational Information

- Online access to career resources including guides to writing resumes, cover letters, and interviewing techniques.
- Occupational information including work tasks, potential job growth and salary information.
- Career Corners are located in the Learning Resource Center on each campus.

Events

- Workshops are offered on each campus on topics such as resume writing, interviewing skills, conducting a job search, etc. at the request of faculty and students.
- Career fairs and on campus recruiting events for local employers.

All services and programs mentioned above are free to students. Students are encouraged to create an account with Career Coach to receive job referrals.

Alumni Association

The Alumni Association is a permanent link between graduates and the College. The Association's mission is to provide services to West Virginia Northern alumni, students and the communities serviced by the College. The organization fulfills these goals by participating in community service projects, making donations to the College in various ways and working with the Student Senate and administrative offices.

Currently one of the main focuses of the Alumni Association is to act as historians for the College. This work involves compiling, maintaining and exhibiting a collection of B&O Railroad memorabilia, Hazel-Atlas Glass and glass manufactured in the New Martinsville area. The Alumni Association also coordinates programs dedicated to diversity and social justice on all three campuses.

The Association also gives special awards of recognition yearly to current students for outstanding achievements and to former graduates who have gone on to distinguish themselves in their career field.

Lifetime membership is available to those who have earned 24 or more credits at West Virginia Northern. Members can actively participate in Alumni work through four standing committees - Membership, Museum, Service (to the community at large and the College), and Ways and Means.

For more information about the Alumni Association, visit www.wvncc.edu/alumni.

Health Insurance

The College neither provides nor sponsors student health or other insurance. The cost of medical treatment or support in the event of illness or injury is the responsibility of individual students. All students are encouraged to acquire health and accident insurance if they are not already covered by parental or personal insurance plans.

Sometimes the College will provide brochures of discounted plans made available to our students but not endorsed by the College. Check your Campus Service Center for details.

Parking

The College maintains parking lots on all three campuses. Students wishing to park on campus must obtain appropriate vehicle registration tags once each academic year. All students who enroll are entitled to a vehicle tag permit. There is no fee for replacing a lost vehicle tag. Vehicles parked in restricted areas may be ticketed or towed at the owner's expense. Violation of the College's parking regulations will result in towing, a ticket and/or other penalties.

A valid handicapped sticker provided by the State Department of Motor Vehicles must be displayed on a vehicle parked in a space reserved for the handicapped.

The College assumes no liability for theft or damage to personal property or vehicles while parked in College parking lots or any other area. Cars should be locked and items secured at all times. Students should report theft or damage to the Campus Service Center as soon as possible.

For additional information regarding College vehicle regulations, see the Student Handbook.

Housing Assistance

West Virginia Northern Community College has no housing facilities. All housing arrangements are made directly between students and the owner or manager of the facility, and students are subject to the rules and regulations of that facility.

The College accepts no responsibility for off-campus housing.

Student Handbook

The Student Handbook can be found on the college's website. A copy can be obtained from the Campus Service Centers.

Tuition/Financial Aid/Veterans Benefits

Tuition and Fees

Students registering for classes at West Virginia Northern Community College requires tuition be paid prior to the beginning of each semester and term. Any unpaid balances will be pursued for payment to the fullest extent in accordance with state and federal law and according to College procedures. Students registering on or after their corresponding last day to pay based on their early registration date, including those students adding classes, must make payment arrangements at the time of registration. Payment may be made by cash, check, Visa, MasterCard, Discover, American Express, or through a College-approved payment plan. Students may make payments online through their student portal accounts.

Students who have a bona fide third party agency paying their tuition will not be required to pay tuition at the time of registration provided there is written authorization in the College's Business Office that payment will be made to West Virginia Northern.

The College may administratively drop students from classes and/or withhold designated services, including evaluation of courses to be transferred from other colleges and/or universities, registration for additional courses, grade reports, evaluation of credit toward degree programs, official transcripts of credits earned at West Virginia Northern and awarding of the diploma indicating degree or certificate attainment, for students who have outstanding tuition, fees, or any financial obligations to the College or who have defaulted on any educational loans.

Residents of Belmont, Harrison, Jefferson, Monroe, Columbiana, Mahoning & Trumbull counties in Ohio may attend at a tuition rate reciprocal to the West Virginia "In-State" rate. Residents of Allegheny, Beaver, Butler, Greene and Washington counties in Pennsylvania and residents Washington county in Ohio pay a Metro rate.

Students taking college coursework while in high school are eligible for an early entrance tuition rate. West Virginia senior citizens (age 65 or older) pay half of the tuition per credit hour, for classes on a space available basis. Payment of full tuition costs assures a spot in class.

Other Fees

Students applying to limited enrollment programs will be charged a nonrefundable Application Fee. (See Health Sciences Selection and Admission Provision, Admissions/ Registration section).

Special fees include, but are not limited to an informational technology fee (per credit hour), facility fee (per semester), administrative fee (per semester), student activity fee (per semester), and a capital fee (per semester). Students will be assessed program specific fees depending on their course of study. Federal and State Perkins guidelines require an external assessment of qualified programs. Therefore, some programs contain coursework that lead to certification examinations. Fees associated with these exams are incorporated in the program fee assessed to students. Questions regarding exams or program specific fees should be submitted to the director of the academic program in which the fees are required.

Current fees can be found on the College's Web page at https://www.wvncc.edu/free-and-favorable-tuition/tuition-and-fees-information/539. Students can estimate the cost of their education by accessing the Net Price Calculator found on the College's website on the home page under Quick Links or wvncc.studentaidcalculator.com/survey.aspx.

Payment Plan

West Virginia Northern Community College offers an interest-free, monthly payment option to assist students in paying tuition and fees. For additional information, contact Student Services.

Tuition Refunds

Only in cases where the College cancels class or a student withdraws prior to the first day of the semester, or prior to the first day of class for classes beginning later in the semester, will full tuition be refunded. Refunds are automatically computed only for students who withdraw from all courses during the refund period.

Students who officially withdraw from a portion of their courses anytime during the first week of the refund period must request, in writing, a refund from the Chief Financial Officer/Vice President of Administrative Services. For students who totally withdraw from all classes (excluding administrative or institutional withdrawals), a percentage, based on total tuition charges, will be refunded following the schedule below. If a student has been making payments according to a payment plan, the refund percentage is based on the full amount of tuition originally owed at the beginning of the semester.

Classes canceled by the College	100% refund	Prior to the first day of semester
Prior to the first day of the semester	100% refund	Week One (Add/Drop Week)
During the first week or 13% of the term	90% refund	Week Two
Students completing 14% - 25% of the term	75% refund	Week Three and Four
Students completing 26% - 38% of the term	50% refund	Week Five and Six
Students completing 39% or more of the term	No refund	No refund issued after Week Six

In doing the calculation, should the percentage calculation identify a partial day, the entire day will be included in the higher refund period.

Fees are refundable only if classes are dropped during the 100 percent refund period. Student refunds will be sent to BankMobile and disbursed based on the student's refund preference. This applied to all refunds except early access, continuing education, and community education students. If payment was made with a credit card the credit card account will be credited, within 30 days after the official drop date. When classes are canceled, refunds will be issued as soon as possible. Students on payment plans who still owe a balance after withdrawal may have their payment plans adjusted to reflect their new account balance.

Students participating in federal financial aid programs will have their aid adjusted according to the Federal Return to Title IV policy, see **"Federal Return to Title IV Aid (R2T4)"** in this section.

BankMobile Refunds

In order to receive a refund, you must activate your BankMobile account and select your refund preference. You may select to direct deposit to your personal banking account or open a BankMobile Account. You must make this selection via Bankmobile – WVNCC cannot make this decision for you. No decision on the student's part results in a paper check issued by BankMobile.

NO PAPER CHECKS WILL BE ISSUED BY WEST VIRGINIA NORTHERN COMMUNITY COLLEGE.

To learn more about BankMobile, please visit www.RefundSelection.com or call 304-214-8811.

Tax Benefits for Education

Questions concerning individual tax credits should be directed to www.irs.gov. 1098-T documents are sent by the College according to federal guidelines and documents are accessed through the Heartland ECSI website at heartland.ecsi.net/. Students should contact the Business Office at 304-214-8811 with questions.

Financial Aid

West Virginia Northern Community College offers several types of financial assistance to aid students in meeting educational expenses. More than 90 percent of the financial aid awards are granted on the basis of demonstrated financial need; however, the College also offers awards on the basis of academic and extracurricular performance. After applying for admission, students may apply for financial assistance.

At West Virginia Northern, financial need is defined as "the difference between the cost of attendance and the amount that the student can afford to pay for the education" i.e., Expected Family Contribution (EFC). To determine financial need, the College uses information from the Free Application for Federal Student Aid (FAFSA).

Students who qualify may be awarded more than one type of aid. Awards may be combinations of gift (scholarships and grants) and self-help (loans and work) aid. Students must reapply for aid each academic year.

Applications for need-based aid other than Federal Pell Grants should be submitted by March 1 for the Fall Semester (August through December) and by October 1 for the Spring Semester (January through May). Requests submitted after these dates will be accepted and processed until all available funds are utilized. Funds will be available on or after the published refund day. Scholarships require a separate application.

It is important that students keep the Financial Aid Office informed of any changes in their plans to attend college. For example, if they have already registered for classes and decide not to attend, they should notify the Financial Aid Office in writing prior to the start of the semester. The Financial Aid Office cannot withdraw students from classes. In order to withdraw from classes, students must use their NOW account online, or contact a campus counselor directly and should confirm the withdraw has been processed.

In general, in order to receive aid students must be working toward a certificate or associate degree, not be in default on a loan or owe a repayment to any aid program at any post-secondary institution, and must maintain financial aid Satisfactory Academic Progress.

Inquiries concerning financial aid or requests for applications should be addressed to: Financial Aid Office, West Virginia Northern Community College, 1704 Market St., Wheeling, WV 26003-3643, or financialaidoffice@wvncc.edu. Financial Aid applications and forms are available on our website on the Financial Aid Office page.

Consumer Information

In keeping with the provisions of part 178 of the Education Amendments of 1976 and 1980, the following information on costs is presented. This information is subject to change by the U.S. Department of Education at anytime. Periodic changes will be published and/or in specific financial aid information sent directly to students on aid.

For financial aid purposes, an independent student is defined as a student who meets one of the following criteria: born before January 1 (per FAFSA guidelines for the applicable financial aid year), has legal dependents other than a spouse, is a veteran of the U.S. Armed Forces, married, an orphan or a ward of the court, is currently serving on active duty in the U.S. Armed Forces for purposes other than training, or who may be classified by a financial aid administrator as independent because of other unusual circumstances.

Sample campus-based budgets follow. Students may have unique circumstances that would result in deviation from this budget to determine expenses.

2026-2027 Campus-Based Budgets for In-State Residents

	In-State Independents	In-State Dependents
Tuition and Fees	4,682	4,682
Program Fee	416	416
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,800	1,800
Transportation	1,523	1,523
Personal and Misc.	2,340	1,305
Living Expenses	8,744	4,372
Total Budget	$ 19,865	$14,458

2026-2027 Campus-Based Budgets for Metro Rate Residents

	Metro Rate Independents	Metro Rate Dependents
Tuition and Fees	9,506	9,506
Program Fees	416	416
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,800	1,800
Transportation	1,523	1,523
Personal and Misc.	2,340	1,305
Living Expenses	8,744	4,372

Total Budget	$24,689	$19,282

2026-2027 Campus-Based Budgets for Out-of-State Residents

	Out-of-State Rate Independents	Out-of-State Rate Dependents
Tuition and Fees	13,418	13,418
Program Fees	416	416
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,800	1,800
Transportation	1,523	1,523
Personal and Misc.	2,340	1,305
Living Expenses	8,744	4,372
Total Budget	$28,601	23,194

For current tuition and fees, see the College's Web page at https://www.wvncc.edu/future-students/tuition-and-fees-information/539. Budgets are subject to change. These are estimated amounts that individuals in or out of school will incur depending upon living arrangements and responsibilities. An average program fee will be added to each student budget. Students (for example, in culinary arts, nursing, and welding programs) may have budgets adjusted that reflect their higher fees.

All students seeking specific consumer information about financial aid programs or financial aid access for persons with disabilities or Spanish speaking persons should contact the Financial Aid office.

Types of Financial Aid Available

Federal Grants and State Scholarships

- Federal Pell Grants
- Federal Supplemental Educational Opportunity Grant
- West Virginia Higher Education Grant
- West Virginia Invests Grant
- Pennsylvania State Grant
- The West Virginia PROMISE Scholarship
- The West Virginia Engineering, Science and Technology Scholarship
- West Virginia Nursing Scholarship Program

Work-Study

- Federal Work-study Program.

Loans

- Federal Direct Loan (subsidized and unsubsidized).
- Federal Direct PLUS Loan.

Always review the Financial Aid Office webpage at www.wvncc.edu/offices-and-services/financial-aid/642 for updates to available financial aid funds.

Additional Loan Information

All students must complete entrance counseling and a master promissory note at https://studentaid.gov before receiving loan funds and complete exit counseling upon withdrawing, graduating, or dropping below half-time status.

Students who have several federal education loans may apply to have the loans consolidated into one loan, with one payment for an extended repayment period. More information is available with the loan servicer.

Students using a private loan can get the Private Education Loan Applicant Self - Certification form from the loan servicer and/or Financial Aid forms page online at www.wvncc.edu/offices-and-services/financial-aid-forms/647.

Aid Tied to Grade Level

WVNCC financial aid students will use the following grade level progression for federal Direct Loan calculations: Students will be considered "grade level one students" until they have completed 30 credit hours; students who have completed 31 hours or more are considered "grade level two students." Only A.A.S., A.S., and A.A. degree seekers qualify for level two funding.

Non-Payment for Test Outs

Because Federal Title IV aid will only pay for time spent in class, it will not pay for test outs or challenge exams. Students are expected to pay these costs.

Federal Return to Title IV Aid (R2T4)

Title IV funds are awarded to a student under the assumption that the student will attend for the entire period for which the assistance is awarded. Students who receive federal funds as part of their aid package and who either officially or unofficially withdraw from all classes during a semester, may be required to return all or a portion of those funds.

The law specifies how the College must determine the amount of Title IV program assistance that you earn if you withdraw from school. The Title IV programs that are covered by this law offered at WVNCC are: Federal Pell Grants, Iraq and Afghanistan Service Grants, Direct Loans, Direct PLUS Loans, and Federal Supplemental Educational Opportunity Grants (FSEOGs). In addition, WV Higher Education Policy Commission, requires use of the same policy for the WV Higher Education Grant and the WV Invests Grant.

Though your aid is posted to your account at the start of the term, you earn funds as you complete the semester. If you withdraw during the semester (see withdraw definitions below), the amount of Title IV program assistance that you earned up to that point is determined by a specific formula. If you received less assistance than the amount that you

earned, you may be eligible to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by the school and/or you.

The amount of assistance that you have earned is determined on a pro rata basis. For example, if you completed 30% of the semester, you earn 30% of the assistance you were originally scheduled to receive. Once you have completed more than 60% of the semester, you earn all the assistance that you were scheduled to receive for the semester. If you receive excess Title IV program funds that must be returned, the College will return a portion of the excess equal to the lesser of:

- Your institutional charges multiplied by the unearned percentage of your funds, or
- The entire amount of excess funds.

The College must return this amount even if we did not keep this amount of your Title IV program funds. If the College is not required to return all of the excess funds, then you must return the remaining amount.

Any loan funds that you must return, you (or your parent for a Direct PLUS Loan) repay in accordance with the terms of the loan master promissory note (MPN). That is, you make scheduled payments to the loan servicer over a period of time. For more information on student loan information, go to: https://studentaid.gov/h/manage-loans.

Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You do not have to repay a grant overpayment if the original amount of the overpayment is $50 or less. You must make arrangements with the school or the Department of Education to return the unearned grant funds.

The College must return Title IV funds to the federal aid programs from which you received aid during the payment period as applicable, in the following order, up to the net amount disbursed from each source:

- Unsubsidized Direct Loans.
- Subsidized Direct Loans.
- Direct PLUS Loans.
- Federal Pell Grants for which a Return is required.
- Federal Supplemental Education Opportunity Grants (FSEOG).
- Iraq and Afghanistan Service Grant.

The requirements for the Title IV program funds when you withdraw are separate from any refund policy that we offer. Therefore, you may still owe funds to the school to cover unpaid institutional charges. WVNCC will also charge you for any Title IV program funds that we were required to return. You can find our tuition refund policy earlier in this section under Tuition Refunds. The Financial Aid Office will advise you by mail of the amount of Title IV aid adjusted. If you owe a balance to the college, the Business Office will notify you of your balance due and repayment options. Failure to satisfy the amount owed in a timely manner will result in a financial hold being placed on your WVNCC records, and your obligation due turned over to our Collections Agency.

Please realize that you are not eligible to receive any financial aid if you:

- withdraw prior to the first day of the semester, or prior to the first day of class for classes beginning later in the semester, or
- have no record of class attendance or participation at all for a semester, or
- are approved for a 100% reversal of your tuition and fee charges after the beginning of a semester.

In these instances, all grant, loan, and scholarship assistance that was credited to your WVNCC Student account for the semester will be adjusted and returned to the U.S. Department of Education, and the resulting balance due WVNCC must be repaid.

Post-Withdrawal Disbursements

If you do not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. If your post-withdrawal disbursement includes loan funds, we must receive your permission before it can be disbursed. You may choose to decline some or all of the loan funds so that you don't incur additional debt. We will automatically use all or a portion of your post-withdrawal disbursement of grant funds for tuition, fees, and books and supply charges.

There may be some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw because of other eligibility requirements. For example, if you are a first-time, first year undergraduate student and you have not completed the first 30 days of your program before you withdraw, you will not receive any Direct Loan funds that you would have received had you remained enrolled past the 30th day.

Withdrawing or Ceasing to Attend Class

If you withdraw from school "officially" (drop your courses online through your NOW account or contact student services) or "unofficially" (stop attending and do not successfully complete ANY course with an A, B, C, or D) before the term is completed, and you receive federal student aid, a Return of Funds Calculation (R2T4) is required to be performed. This calculation may result in a portion of aid being returned to the U.S. Department of Education. You may then owe a balance to the College. Any balance still outstanding 45 days or greater will be turned over to our Collections Agency unless a payment plan has been established with WVNCC's Business Office.

Official Withdraws

To officially withdraw, you must use your NOW account online (contact your Campus Service Center for assistance). Telephone withdrawals can be taken by the Campus Counselor, Associate Registrar or Registrar only.

Unofficial Withdraws

If you do not successfully complete any course with an A, B, C, or D, you will be considered unofficially withdrawn and your Title IV aid may be recalculated based on your last day of attendance in those courses. If a last date of attendance cannot be determined, the R2T4 calculation will be taken back to the 50% point in the term if proof is not available that the student attended an academically related activity after the 60% point in at least one course. The final burden of proof of attendance is required of the student.

Flex Classes

Effective July 1, 2021, federal regulations governing the R2T4 federal aid policy have changed with regard to students who enrolled only in "flex" or "modular" classes (e.g. – classes meeting less than 16-weeks in length) during a semester. Based on these regulations, when a student is enrolled in flex classes, an R2T4 calculation must be performed whenever a student withdraws (officially or unofficially) from all classes which are meeting at that time, regardless of whether or not the student has already passed/completed a flex class earlier in the semester, or if they are enrolled in a flex class which has not yet begun within the semester; unless a student completed a combination of flex classes that equal 49% or more countable days in the payment period. In addition, a student is not considered withdrawn if they successfully complete half-time enrollment for the payment period. Such a calculation can be avoided if the student enrolls in a class which has not yet begun within the semester and the student provides written notification to the Financial Aid Office of their intention to remain enrolled in that class and to attend that class.

Balances Due

PLEASE NOTE: when Title IV funds are returned, the student borrower may owe a balance to the institution. Funds owed back to the U.S. Department of Education may be turned over to U.S. Department of Education collections at the 45 day point if not paid in full. Funds owed the institution will be sent through the College's collection process if repayment is not made according to the Business Office policy. WVNCC requires students to make financial arrangements for any outstanding balance prior to registering for the next term or obtaining any services (such as official transcripts, etc.). The Return of Funds policy requires, by federal law that students must satisfy the amount owed the federal programs before they may re-enroll in any college.

Student Loan Defaults

Students with defaulted loans are no longer eligible for any federal student aid under the student financial aid (SFA) programs. Even if a defaulted borrower's debt has been written off as uncollectable and closed out by reporting the principal amount to the Internal Revenue Service as taxable, the borrower is still considered to be in default and is ineligible for federal student aid. If a compromise agreement has been reached in which the borrower makes an agreement with the holder of the loan to settle the debt, the borrower may be eligible for additional federal student aid. If borrowers choose to reaffirm their loan obligations and make satisfactory arrangements to repay the debt, they may regain eligibility for SFA programs.

Generally, if a borrower is in default on an SFA loan held by the Department of Education or by a guarantee agency and applies for federal student aid, the Student Aid Report (SAR) received after filing the FAFSA will indicate that the borrower is in default and thus not eligible for aid under the SFA programs. If the borrower has made satisfactory arrangements to repay the loan, the SAR will indicate that the borrower is eligible but will include a warning that if scheduled payments are not made on the loan, future federal student aid will be denied.

Once students allow a loan to go into default, their opportunity to obtain a deferment may be lost, and they will not be able to receive any federal financial aid until the obligation is discharged or satisfactory arrangements to repay the loan have been made with the loan servicer. A loan servicer, however, may grant forbearance to a borrower whose loan is delinquent or in default. If a loan obligation has been discharged in bankruptcy after the borrower has defaulted, it is no longer considered to be in default; and the borrower is eligible for further federal financial student aid.

More information on student loan repayment can be found online under Student Loan Repayment options on the Financial Aid page on www.wvncc.edu/offices-and-services/student-loan-repayment-options/4283 or at www.studentaid.gov.

Scholarships and Academic Awards

West Virginia Northern and the West Virginia Northern Community College Foundation recognize academic excellence and potential for academic excellence through the awarding of various scholarships and academic awards. Students who have shown outstanding academic performance in the past or have promise of future academic achievement at Northern may apply for academic assistance by using the following application process.

Scholarship and Academic Award Application Process

To apply for any scholarship or academic award, students must submit:

1. High school transcript, high school equivalency scores from a state agency approved test program scores or diploma. If the applicant is a current Northern student and has already submitted transcripts from high school or high school equivalency scores from a state agency approved test program scores, the Financial Aid Office will gather this information from West Virginia Northern's Records Office.
2. Academic transcript(s) from all postsecondary institutions attended.

3. Typewritten letter stating educational goals and how they will benefit society.
4. One letter of reference. It is recommended that it is from either a West Virginia Northern or high school faculty/staff member.
5. A typewritten statement of involvement in community service/organizations or awards/recognitions received by applicant.
6. Completed West Virginia Northern Scholarship Application.

WVNCC Foundation Scholarships and Awards:

ANONYMOUS SCHOLARSHIP - Awarded to residents of Ohio County in Applied Technology majors with financial need. Preference is given to "non traditional" or first-generation students.

BAYER HERITAGE FEDERAL CREDIT UNION SCHOLARSHIP - Preference to a full-time incoming college student with a minimum GPA of 2.7 and in need of financial aid. Secondary preference to a part-time incoming college student with a minimum GPA of 2.7 and in need of financial aid.

COLLEGIATE ALUMNAE OF WHEELING SCHOLARSHIP - Full-time, second year WVNCC student, West Virginia resident with a minimum overall GPA of 3.0 and in need of financial assistance.

DAN WILSON MEMORIAL SCHOLARSHIP - Awarded to a full-time student on the Weirton Campus. Student must be a Business or Accounting major with a minimum overall GPA of 3.0. Preference is given to second-year students.

DR. MARY MAROCKIE TEACHING SCHOLARSHIP – Awarded to an Early Childhood Education or Education major. Must be a full-time student with a 3.0 or higher overall GPA.

EQT FOUNDATION SCHOLARSHIP - Awarded to students in the CDL program or Summer Welding Institute.

ERIKA M. BENNETT MEMORIAL SCHOLARSHIP - Full-time nursing student on the New Martinsville Campus who resides in Wetzel or Tyler county.

FLOYD W. LASURE SCHOLARSHIP - Scholarship for students at the New Martinsville Campus.

IRENE KUCAN MEMORIAL SCHOLARSHIP – Awarded to an incoming student from Brooke or Hancock counties with a minimum high school GPA of 2.0.

JACKSON FAMILY SCHOLARSHIP – Awarded to Ohio or Marshall county students with at least an overall 2.0 GPA.

JOHN C. WRIGHT SCHOLARSHIP – Awarded to a Tyler county resident with a 2.0 or higher overall GPA.

MAIN STREET BANK SCHOLARSHIP - Awarded to students majoring in business or accounting, with a minimum overall GPA of 2.0.

MEAGEL SCHOLARSHIP - Full-time student with scholastic attainment (GPA of 2.70 or higher) and financial need. Students of all majors.

MILDRED V. NIEKAMP SCHOLARSHIP - Full-time or part-time student who is a resident of Marshall, Ohio or Wetzel counties to assist with tuition, books and/or fees who are pursuing a career in Business.

OHIO COUNTY MEDICAL SOCIETY ALLIANCE SCHOLARSHIP - Awarded to a student who has completed at least one year of study in a medical related field. Students must be a resident of Ohio, Marshall or Brooke counties and have an overall GPA of 3.0 or higher

ROBERT R. LAFOLLETTE SCHOLARSHIP – Awarded to an incoming student majoring in Associate in Arts or Associate in Science.

RICK ESTEP CRIMINAL JUSTICE SCHOLARSHIP – Awarded to a full-time or part-time resident of Wetzel County who is a Criminal Justice major. Applicant must have a minimum of 3.0 overall GPA, be in need of financial assistance and a graduate of Paden City, Hundred, Valley or Magnolia high schools.

SOUTHWESTERN ENERGY COMPANY SCHOLARS PROGRAM – Awarded to students majoring in Petroleum Technology with a 2.0 or higher overall GPA.

ST. ANN'S EPISCOPAL CHURCH SCHOLARSHIP - Awarded to a second year New Martinsville campus student with a GPA of 2.0 or higher.

WALTER REUTHER SCHOLARSHIP - Up to full tuition. Requires: Full-time, first-year student with a 2.5 GPA who is a member, son or daughter or ward of a union member or a deceased union member. Applicant must reside in Belmont County (Ohio) or Marshall or Ohio County (West Virginia) and demonstrate financial need.

W. B. UMBERGER SCHOLARSHIP - Attendance at the New Martinsville Campus. Must continue to be involved in community service throughout the award period. Minimum 3.0 GPA. Preference to non-traditional students.

WVNCC Foundation Academic Awards:

JOSEPH EDDY TECHNOLOGY FUND - Requires: Students majoring in the areas of science and technology. Preference is given to students with an overall GPA of 2.5 or higher.

IRENE MINDZAK SCHOLARSHIP – Weirton campus student in good academic standing.

FRIENDS SCHOLARSHIP – when available per campus, awards are given to students on all 3 campuses. Minimum of a 2.5 GPA.

Other Student Assistance:

NSDAR – WHEELING CHAPTER, DAUGHTERS OF THE AMERICAN REVOLUTION Must have completed at least 30 credit hours. Final selection is made by the chapter. The check is presented to the recipient in October at the NSDAR Wheeling Chapter meeting for tuition and/or educational expenses.

WVNCC ACADEMIC SCHOLARSHIP - Full or Part-time Tuition. For students who plan to enter a profession that will be of service to society. Must have declared a major.

In addition to the scholarships and academic awards given by the College, the institution often recommends students for a number of awards that are granted by external agencies, such as the American Culinary Federation Institute Scholarship Foundation Program. These opportunities vary yearly, and specifics on available awards may be obtained from the Financial Aid Office.

The recipients of all scholarships or academic awards are selected and/or recommended for further consideration by the Scholarship Committee on the basis of the following criteria:

1. Number of credits for which the applicant is enrolled.
2. Applicants must possess a high school diploma, High school equivalency scores from a state agency approved test program or have certification from the high school that they are eligible for a diploma at the next commencement.
3. Applicants should be aware that high school and/or college grade point average is extremely important and is weighed more heavily than other factors.

4. Scholarship applicants for named scholarships must meet the specific curriculum requirements, residence requirements, etc., required by the individual or group awarding the funds.
5. Letter of reference, a statement of future goals, participation in school and/or community activities and previous college work will also be reviewed in the awarding process.
6. Any other appropriate data deemed relevant by the Scholarship Committee will also be used in considering applicants.
7. If, in the judgment of the Subcommittee, two candidates are deemed to be equal, the application of the last criterion for scholarship selection shall be that the recipient be a resident of West Virginia.

Scholarships which require a student to provide proof of eligibility must do so according to the timeline provided in their scholarship notification or risk loss of the scholarship. In the event the awarded student does not provide any additional requirements for proof of eligibility, the College Financial Aid Office reserves the right to cancel the student's scholarship and award available funds to another eligible student. Students awarded scholarships must also meet the requirements of the scholarship at the time of disbursement of funds. All WVNCC Foundation Scholarships are subject to change in amounts or availability based on funding levels from donors or organizations.

Financial Aid Satisfactory Academic Progress (SAP)

Federal regulations require schools offering Federal Student Aid to establish policies to monitor the academic progress of students who apply and/or receive financial aid. This policy differs from the Institutional Standards of Academic Progress. SAP describes the academic standards that students must maintain while completing their Associate or Certificate degree to maintain eligibility for financial aid. These standards consist of completing a quantitative (time-based) and qualitative (grade-based) measure, and a maximum time-frame measure (150%), which is reviewed at the end of each academic semester. Students will be notified by e-mail to their Northern e-mail address if not meeting SAP and if further requirements are necessary.

Federal Student Aid Programs Monitored by these Regulations

- Federal Direct Subsidized Student Loan.
- Federal Direct Unsubsidized Student Loan.
- Federal Direct Parent Loan (PLUS).
- Federal Pell Grant.
- Federal Supplemental Educational Opportunity Grant (SEOG).
- Federal Work-Study (CWS).

Minimum SAP Standards

1. Cumulative Grade Point Average (GPA) – minimum 2.0 required
    - Earned transfer credit will also be calculated into the GPA unless a Deletion of Outdated Coursework (see separate policy) has been petitioned with the Records Office.
2. Pace (completion) Rate – minimum 67%
    - Calculation = Credit hours successfully completed (Total PASSED) divided by Total Credit Hours ATTEMPTED.
    - All attempted* credit hours and transfer hours are calculated in the rate even if no financial aid was received for the hours.
      *includes withdrawals, failed coursework, incompletes, and repeat coursework

Example: A student has attempted a total of 30 hours. In order for the student to be financial aid eligible he or she must have completed 21 hours (30 hrs x 67% = 20.1)

3. Maximum Time-Frame (150%) – Students must complete their studies within a maximum time frame that would be limited to no more than 150% of the published length of their program. All attempted and transfer coursework is included in the calculation. A student is ineligible when it becomes mathematically impossible to complete the program within 150% of the length of the program.
    - AA/AAS/AS Degree Programs: Total credit hours required are 60, the maximum time frame is 90 attempted hours (60 x 150%).
    - CAS Programs: Total credit hours required are 30, the maximum time frame is 45 attempted hours (30 x 150%).

Review of SAP Standards

1. A review will be done at the end of each semester/payment period. The evaluation period will be based on attendance in all prior semester(s) and will include all classes attempted (and transfer work) whether federal aid was received or not.
2. After the first time the student does not meet the minimum SAP standards 1 and 2 above, the student is placed into a WARNING status. Financial aid warning means that you CAN receive federal financial aid for the next semester of enrollment.
3. If, after the Warning period, the student is still unable to meet the minimum SAP standards the student is then placed on an APPEAL required status. When an appeal is required this means that you are NOT eligible for federal financial aid for the next semester. The student may appeal this decision if they have an extenuating circumstance.
4. A student not meeting the 150% Maximum Time-Frame is automatically required to submit an Academic Plan appeal worksheet. This plan may be applicable for up to 3 semesters.

Re-establishing Eligibility

If you are on an Appeal because of failure to successfully complete the Minimum SAP Standards as described above, you must successfully meet the minimum GPA and PACE percentage by taking additional classes at your own expense, or submit a SAP appeal for consideration due to extenuating circumstances. If the SAP appeal is approved, the student is placed on Probation or Probation with an Academic Plan. If denied, the student may still attend WVNCC but at their own expense unless also academically ineligible. Please review the appeal process below.

SAP Appeal Process

All students who have their financial aid eligibility suspended due to SAP may appeal to the Financial Aid Office to receive financial aid in subsequent semesters. The SAP appeal form is available online or in the Financial Aid Office.

An appeal must be based on an extenuating circumstance or situation which prevented the student from completing/passing their courses, or which required that they withdraw from classes. A work conflict, repetitive withdraws and/or failures are not extenuating circumstances. The appeal response must:

- include information describing why minimum SAP standards have not been met and how the situation has changed so that SAP will be met at the next evaluation. Not being able to concentrate on college after being in high school is not an approved reason for not maintaining SAP.
- 2nd appeals must be based on a reason different from the first.
- Detail any extenuating circumstances, including supporting documentation form a 3rd party (e.g. police reports, detailed hospital bill or physician statement, death certificate, military deployment, etc).
- Be complete and turned in to the Financial Aid Office by the deadline date for each of semester of enrollment (See SAP appeal form for current term date).

Students required to submit an Academic Plan worksheet should be worked on between the student and their Academic Advisor/Advising Center. This is a plan outlining required courses of enrollment over the next 1-3 semesters. A Northern Navigator worksheet through NOW are required as part of the appeal submission.

An appeal may be approved only if the school has determined that the student will be able to meet the minimum SAP standards after the subsequent semester. Approval of financial aid based on appeal is normally approved one time during a student's academic career at WVNCC. If a student has not achieved the minimum SAP standards after the first probationary period, the student may be ineligible for aid until the minimum SAP standards are met unless some progression towards the degree completion is evident.

Additional SAP Policies

Remedial/Supplemental/Pre-requisite Courses: A student, otherwise eligible for federal financial aid, is permitted to attempt a maximum of 30 semester hours of these types of courses while receiving financial aid. It is our best practice to encourage completion of required remedial/supplemental courses within the student's first academic year at WVNCC. At the point it becomes mathematically impossible for a student to complete all required remedial/supplemental courses within 30 credit hour attempts, the student is no longer eligible for financial aid for any remaining remedial/supplemental/pre-requisite courses.

Repeat Courses: A student may receive financial aid for repeating a previously passed (required) course once. For this purpose, passed means any grade higher than an "F", regardless of any school or program policy requiring a higher grade or measure to have passed the course. Any courses repeated will be used in the student's PACE and 150% calculations.

Incomplete Grades: Classes in which students are issued Incompletes are considered attempted hours; therefore, they are used in all SAP calculations as such.

SAP Appeal Notifications

All notifications will be sent to each student's WVNCC email address. Be sure to follow all instructions as indicated in the appeal, approval or denial notice. Some appeals may be approved with modifications, such as an approval for a reduced number of credit hours for the term in which you have applied. You may need to contact your Academic Advisor or your Campus Advising Center to adjust your schedule.

Remember: *Financial aid is only applicable for courses required for degree completion. Students cannot take "filler" classes to be full-time for federal financial aid purposes, or take courses for future degree programs not required for completion of their current degree at WVNCC.*

Length of Eligibility for Financial Aid

All students must complete their proposed program/degree within a prescribed period of time. The technical amendments of the Higher Education Act of 1994 require that students complete their program of study within 150% of credit hours attempted.

Following are the periods in which a program/degree must be completed and graduation requirements met.

Certificate in Applied Science:

- Full time (12 or more credits per semester) equals 4 semesters.
- Three-quarter time (9-11 credits per semester) equals 6 semesters.

- Half time (6-8 credits per semester) equals 6 semesters.
- Less than half time (1-5 credits per semester) equals 8 semesters.

Associate Degree:

- Full time (12 or more credits per semester) equals 8 semesters.
- Three-quarter time (9-11 credits per semester) equals 12 semesters.
- Half time (6-8 credits per semester) equals 12 semesters.
- Less than half time (1-5 credits per semester) equals 14 semesters.

Students who enroll for varying credit hours from semester to semester (i.e., full time one semester and halftime the other semester) will have hours earned and length of eligibility prorated.

Students who have not met the length of eligibility requirements, are in the process of applying for graduation and have used the petition process must notify the Financial Aid Office to have their eligibility reviewed.

Veterans Benefits

West Virginia Northern Community College welcomes all who have served in the Armed Forces. Whether you are a discharged veteran, still serving on active duty, in the National Guard or Reserves, or a family member, WVNCC is committed to supporting and encouraging your success. WVNCC is part of the WV 5 STAR Challenge including offering priority registration to veterans.

To apply for GI Bill® Benefits visit www.benefits.va.gov/gibill/ and select "Applying for Benefits". You may wish to utilize the GI Bill® Benefits Comparison Tool at: www.vets.gov/gi-bill-comparison-tool.

Service Members who have completed at least one full year of military service may be eligible to receive two hours of physical education activity credit by submitting their DD214 (copy of member-4 form) to the certifying official. Service Members are encouraged to request an official Joint Services Transcript if available at https://jst.doded.mil/jst/ in order for their military occupational experience and training to be considered for corresponding academic credit.

WVNCC participates in the Section 702 benefits related to charging instate tuition, including those living in WV on active duty (and their dependents) and those funded through the Fry Scholarship. Contact the Records Office with any questions related to residency.

Students receiving benefits must achieve institutional standards of progress toward their degree in order to continue their educational benefits.

Effective August 1, 2019, per the Veterans Benefits and Transition Act of 2018, any student using Ch. 33 Post 9/11 GI Bill®or Ch. 31 Veteran Readiness and Emplоment benefits will not incur any penalties **after certification** and while awaiting payment from the VA, including:

- Barring enrollment
- Receiving late penalty fees
- Being required to secure alternatives or additional funding
- Being denied access to any school resources (e.g. classes, library, or other institutional facilities) available to other students who have paid.

However, please note that West Virginia Northern **will require** each student receiving VA funds to:

- Produce all required paperwork in order to be certified (e.g. Certificate of Eligibility, VR&E Authorization, etc.).

- Provide all information required of any student for admission to West Virginia Northern (e.g. Applications, SS number, transcripts, placement scores, etc.).

Note: The Veterans Benefits and Transition act of 2018 does not apply to students who have not provided information for certification, admission, and financial aid.

For additional information regarding your veteran educational benefits, please contact the veteran certifying official or a Campus Counselor.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at http://www.benefits.va.gov/gibill.

Rules, Provisions & Other Regulatory Information

Academic Rules

Academic Integrity and Student Responsibilities Rule

Academic requirements and policies determined by the College consistent with the West Virginia Council for Community and Technical College Education (CCTCE) and Higher Education Policy Commission (HEPC), West Virginia Northern Community College Board of Governors, and professional and institutional accreditation guidelines, apply to all students who enroll in credit courses and degree programs.

Academic Integrity. The College's academic program requirements are determined according to standards of each field, as recommended by qualified faculty in consultation with professionals in the field and approved by the Vice President of Academic Affairs, Curriculum Committee, and the President. Academic programs are approved by the WVNCC Board of Governors. Assignment of credit hours for each course is determined by the faculty member and approved by the Curriculum Committee. Northern follows the Carnegie Unit for amount of time classes meet. All academic programs undergo a periodic program review involving professionals in the field and other educators with reports reviewed by the Board of Governors and CCTCE. Accredited programs undergo additional review and meet specific requirements for the professional accreditation. In addition to the specific academic course and program requirements, academic policies assure the integrity of the academic experience and degree.

Assessment of student academic achievement is an important aspect of assuring achievement of state and national academic standards. This process includes the administration of standardized assessment measures that determine the achievement level of students at West Virginia Northern in specific areas and levels as compared with other students in similar levels and specialties across the country. These assessments are required of students; however, individual scores are not used as part of students' grades. Instead, it is information that permits the College to assess its strengths and needs to assure academic integrity in academic programs. Assessments are administered to students completing A.A.S. degrees to assess job-related skills as compared to specific occupational standards. These assessments are scheduled at times to make it convenient for students to participate. Completion of state mandated assessments are a graduation requirement, and failure to comply with completion of required assessments can result in a "hold" on student records until completed.

Academic Program Completion Timeline Requirements. Students are expected to complete program requirements that are listed in the catalog at their time of entry into the program provided graduation requirements are completed within five years and the student does not withdraw temporarily from the college for two consecutive semesters (excluding summer). Students who do not take courses for more than two consecutive semesters (excluding summer) must complete a new application for admission and undergo review with an academic advisor in the program to determine applicability of prior courses, which may result in a revised plan for completion of degree requirements. Students who do not complete degree requirements within five years must have a new plan for completion approved to assure the degree reflects current program competencies.

Course Substitution or Course Waiver Request Form may be submitted by students who request a modification in course requirements when they can document that program competencies or general education goals have been met in other ways. This form should be initiated by the student in consultation and with the approval of the academic advisor and requires approval of the division chair/program director and the Vice President for Learning/Chief Academic Officer.

Course substitutions for courses no longer offered by the College can be made by the division chair/program director administering the affected courses, with the approval of the Vice President for Learning/Chief Academic Officer. Efforts are made to assist students in completing degree requirements in an efficient and timely manner.

Class Attendance and Participation. Although classes vary with regard to requirements, activities, and instructional methods, attendance and active participation are the responsibility of students who wish to succeed. Students are expected to make progress and meet course expectations in time frames outlined by the instructor. During the first week of classes, students receive instructor expectations and should clarify any questions regarding these requirements. It is the student's responsibility to consult with the instructor regarding attendance or participation problems to determine if alternative arrangements can be made.

Academic Honesty and Support of a Learning Environment. All students are responsible for their own academic work and behavior that supports a learning environment. Dishonesty results in disciplinary action such as lower grade, failing grade, administrative withdrawal, program probation, suspension or dismissal. Behavior which interferes with the rights or learning environment of others can result in administrative withdrawal, suspension, or dismissal. Students have rights to appeal such decisions consistent with rule. See Student Rights and Responsibilities.

Plagiarism includes using someone else's ideas without giving credit to that person in an appropriate citation or using someone else's words without placing them in quotation marks and/or without identifying that person in an appropriate citation.

Cheating includes such practices as receiving test answers from or giving test answers to another student, submitting another student's work or another source as one's own work (unless permitted to do so as a result of a joint assignment), stealing tests or test items, or using notes when not permitted.

Student Rights and Responsibilities

The submission of an application for admission to the College represents an optional and voluntary decision on the part of the prospective student to partake of the program and privileges offered by the College pursuant to the policies, rules, and regulations of the Board of Governors and the College. Institutional approval of that application, in turn, represents the extension of a right or privilege to join the College community and to remain a part of it so long as the student fulfills the academic and the behavioral expectations that are set forth in the policies, rules, and regulations of the College. A complete copy of academic rights and responsibilities as well as Student Code of Conduct policies, rules, regulations, disciplinary action, and appeals procedures is available at the Campus Service Center and the College's web page.

Student Academic Rights. Each student shall have the following academic rights:

1. The right to be graded or have his/her performance evaluated solely upon performance in the coursework as measured against academic standards. The student shall not be evaluated prejudicially, capriciously, or arbitrarily. West Virginia Northern Community College, pursuant to the requirements of Titles IV, VI, and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, does not discriminate against applicants, employees, or students on the basis of race, color, religion, sex, disability, age or national origin in its employment policies and/or educational programs or activities, including admissions to such. Inquiries concerning this policy should be directed to the Campus Counselor at an individual campus or by calling the Human Resource office at 304-214-8901.
2. The right to have any academic penalty reviewed.

3. The right to have access to a copy of the college catalog or program brochure in which current academic program requirements are described (e.g., required courses, total credit requirements, minimum grade point average, probation standards, professional standards, etc.).
4. The right to receive from the instructor written descriptions of content and requirements for any course in which they are enrolled (e.g., attendance expectations, special requirements, laboratory requirements including time, field trips and costs, grading standards and procedures, professional standards, etc.).

The instructor of each course is responsible for assigning grades to students enrolled in the course, consistent with the student's academic rights.

Student Rights Related to Records. Admissions records, grade reports, financial aid records and reports of disciplinary action are official student records that are maintained by the College's Records Office and Financial Aid Office. Consistent with the Family Educational Rights and Privacy Act of 1974, as amended, students are ensured the right to view the information in their own file as outlined in the law and to dispute any items that are believed not to be appropriate for the file. Copies of most items may be obtained by the student, except copies of documents provided by a third party, such as high school and other college transcripts and immunization records.

Access to records by academic advisors, counselors, and other West Virginia Northern personnel who have a need to know specific information to provide advice, counseling, and appropriate services is provided. Access to and copies of student records, such as transcripts, will not be provided to others unless specifically requested in writing by the student.

For students with outstanding financial obligations, the College may administratively drop a student from classes for non-payment.

A "hold" on student's records will be placed if a student's obligations to the College are outstanding. Student may not be able to register for classes or receive a diploma (if the student has graudated) until satisfactory arrangements for meeting those obligations are met.

Directory information. WVNCC designates the following categories of student information as public or "Directory Information." This information may be disclosed by WVNCC for any purpose, at its discretion:

- Name of Student.

Designation of Limited Use Directory Information. WVNCC designates the following categories of student information as "Limited Use Directory Information."

- Age of Student.
- Awards.
- Campus.
- City and State of residence.
- Class Status (i.e., freshman).
- Dates of Attendance.
- Degree(s) and Date(s) Conferred, including anticipated graduation dates.
- Enrollment Status (i.e., full time or part time).
- Honors.
- Major Field of Study.
- Official Address.
- Participation in Officially Recognized Activities and Sports.
- Photographs, videos or other media containing a student's image or likeness (collectively "Student Images").
- Place of Birth.
- Telephone Number.
- WVNCC issued student electronic mail addresses ("Email Addresses"). Accordingly, this information will not be provided to external parties not contractually affiliated with WVNCC. Use and disclosure of this information shall be limited to (1) publication on websites hosted by, on behalf of, or for the benefit

WVNCC; (2) those officials within WVNCC who have access, consistent with the Family Educational Rights and Privacy Act, to such information and only in conjunction with an official institutional purpose.

Rights related to membership in College community. Enrolled students are extended rights and privileges as part of the College community so long as the student fulfills the academic and behavioral expectations that are set forth in the College's policies, rules, and regulations. These rights include essential freedoms of scholarship and inquiry central to all institutions of higher education, access to campus resources and facilities, freedoms of expression, association, rights to privacy and confidentiality of academic and disciplinary records, and rights of due process as are applicable to them.

Standards of Conduct. All students are subject to, and are required to comply with, observe, and obey the laws of the United States and the State of West Virginia; ordinances of local, city, county, and municipal governing bodies; policies, rules, and regulations of the College, its governing board, the Council for Community and Technical College Education (CCTCE), and the Higher Education Policy Commission (HEPC); and the directions and orders of the officers, faculty, and staff of the institution who are charged with the administration of institutional affairs and WVNCC Student Code of Conduct.

Failure to meet standards of conduct can lead to disciplinary action with sanctions including warning, probation, suspension, or expulsion. Failure to meet standards of conduct will be evidenced by, but not limited to, failure to comply to laws, ordinances, policies, and appropriate institutional instructions; disorderly conduct; theft or damage to property; disruption or interference with the rights of others; disruption or interference with an institutional activity, program, meeting, classroom, clinic, or laboratory activity, or other operation; hazing; firearms rule (bringing illegal firearms, explosives, weapons of deadly force, or other weapons of mass destruction on school property), or participation in discrimination activities.

Disciplinary action is taken consistent with the seriousness of the alleged offense and with due process consistent with CCTCE and HEPC guidelines and as outlined in the College's procedures. Disciplinary sanctions of suspension or expulsion imposed by any public state college or university in West Virginia apply to the person sanctioned not only at the institution where the sanction was imposed, but shall also be effective at all institutions in the public higher education system. Disciplinary suspension and expulsion may be noted on the college transcript.

Academic Responsibilities. Students are expected to adhere to academic standards in all academic settings, classrooms, laboratories, clinics, and any other activities that are part of academic requirements. Normally, students may finish a program of study according to the requirements under which they were admitted to the program. However, requirements are subject to change at any time, with reasonable notice provided to the students.

Failure to meet academic requirements, including those for academic honesty, may be subject to one or more of the following penalties:

1. A lower grade or failure of the course or exclusion from further participation in the class (including laboratories or clinical experiences), all of which may be imposed by the instructor.
2. Academic probation as determined and defined by the College.
3. Academic suspension as determined and defined by the College.

Academic dismissal is defined as termination of student status, including any right or privilege to receive some benefit or recognition or certification. A student may be academically dismissed from a limited enrollment program and remain eligible to enroll in courses in other programs at the College, or a student may be academically dismissed from the College and not remain eligible to enroll in other courses or programs at the College.

Academic Appeals may be used by a student who feels he or she has received a final grade in error or feels he or she has been dismissed from a program in error. There are specific deadlines. Refer to the College website, Academic Affairs, Student Rights and Responsibilities, for guidance.

Standards of Academic Progress Rule

Rule. Any student who does not meet the Standards of Academic Progress after his/her first semester will be placed on Academic Warning. A student's academic progress is computed at the end of each fall and spring semesters and the summer term. Transfer students are evaluated after his/her first semester at WVNCC and transfer coursework is consider in the cumulative GPA. The Academic Progress criteria is below:

Standards of Academic Progress Criteria. The criteria for Standards of Academic Progress are a cumulative grade point average (GPA) of at least 2.0 and a semester GPA of at least 2.0.

Academic Warning Requirements. A student is placed on Academic Warning for the semester after the student's cumulative GPA or semester GPA falls below a 2.0. The student will be notified in writing by the Registrar's Office and the student is recommended to review his/her status with his/her academic advisor. The student is limited to no more than 15 credit hours.

Academic Warning will not be notated on the official college transcript. Students whose cumulative GPA is below a 2.0, particularly due to transfer credits or academic history from the past, but who achieve or maintain a semester GPA of 2.0 will remain on "academic warning" until their cumulative GPA is above 2.0, but will not be subject to academic probation unless a semester GPA falls below the 2.0 requirement.

Academic Probation Requirements. If, during the next semester of enrollment after Academic Warning, the student's semester GPA remains below a 2.0 then the student will be placed on Academic Probation. The student is limited to no more than 12 credit hours. Academic Probation will not be notated on the official college transcript. The student will be notified by the Registrar's Office via email.

At the end of the semester on Academic Probation, a student who fails to have a 2.0 semester GPA will remain on Academic Probation. The student is limited to no more than 12 credit hours.

Students may remain on Academic Probation for a total of 3 semesters. If a student fails to maintain the required GPA for after the third semester on academic probation, the student will remain on Academic Probation and will be limited to 5 credit hours.

Students who have been put on Academic Probation who achieve a semester GPA of 2.0 or higher, but have a cumulative GPA of less than a 2.0 will remain on Academic Probation. If the student has attained a semester GPA of 2.0 but still has a cumulative GPA of below 2.0, the student may be allowed to register for a maximum of 15 credit hours with the academic advisor's approval.

Students who meet the criteria for Standards of Academic Progress by having both a semester GPA of 2.0 and a cumulative GPA of 2.0 will be removed from Academic Probation and will be reinstated to good academic standing.

Students who do not sucessfully meet the Standards of Academic Progress criteria will be notified by the Registrar's Officee via email.

Academic Suspension Requirements Students who fail to meet the criteria for Standards of Academic Progress after four consecutive semesters of Academic Probation may be suspended for the next semester from all classes for failure to adhere to the terms and conditions of Standards of Academic Progress. Upon returning to school, if they fail to meet Standards of Academic Progress a fifth time, they may be suspended for one year. Students who return to school after a period of suspension are still subject to the terms and conditions of the initial notice of Academic Probation unless they appeal the decision in writing to the Committee for Standards of Academic Progress and can show compelling reasons why they should be released from those terms and conditions. Academic Suspension will be notated on all official college transcripts.

Provision Exceptions. This rule does not supersede Financial Aid Satisfactory Academic Progress for students on financial aid or for students admitted to specific College programs that have their own Standards of Progress guidelines, such as those in Health Sciences or due to pathway agreements with other colleges or institutions.

Students who have extenuating circumstances beyond his/her control that led to unsuccessfully completing the required number of credit hours or maintaining Standards of Academic Progress may request a waiver of Academic Probation.

This requires a written statement explaining the circumstances and providing evidence of how they will meet Standards of Academic Progress if probation is waived. Decisions on waiver requests will be made by the Registrar, after consultation with the student's academic advisor. A student is allowed only two consecutive waivers in their academic career. Students on Academic Warning are not eligible for waivers.

Students may appeal the Registrar's decision by contacting the office of the Vice President for Learning.

Grading Rule

Policy: West Virginia Northern Community College uses a letter grade system to indicate the quality of coursework performed by students. The following marks are designated for use. Definitions and quality points, where appropriate, are shown:

Grading and Meaning	Quality Points Per Credit Hour
A - Excellent	**4 quality points per credit hour**
B - Above Average	**3 quality points per credit hour**
C - Average	**2 quality points per credit hour**
D - Below Average	**1 quality point per credit hour**

Not acceptable as passing in some programs; may not be transferable as passing to some colleges.

F - Failure (non-passing grade)	**0 quality points per credit hour**
I - Incomplete	**0 quality points per credit hour**

An "I" grade indicates that a student has met attendance requirements, if any, is doing passing work, and has satisfactorily completed all assignments, requirements, and/or exams up to that point, but is unable to complete the end term requirements (generally the last 1-2 weeks of the semester) before grades must be submitted because of extreme factors (such as illness or emergency) beyond the student's control. In such instances, the student must contact the faculty member before final grades are submitted for that semester and request an incomplete. If the faculty member is willing to grant the incomplete, a written form is completed by the faculty member and submitted to the Registrar's Office identifying specific requirements to be met. The "I" grade may be replaced by a regular letter grade by the faculty member (or Division Chairperson if faculty member is no longer available) if the coursework is completed by the following deadlines: For Spring Semester and Summer Semester courses, work must be complete prior to December 1 of the following Fall Semester, unless an earlier deadline is specified by the faculty member granting an Incomplete. For Fall Semester courses, work must be completed prior to May 1 of the following Spring Semester, unless an earlier deadline is specified by the faculty member granting an incomplete. No time extensions are allowed. An incomplete grade not made up by the established deadline automatically becomes an "F". Semester and Cumulative Grade Point Averages will be recalculated upon completion of the Incomplete or when the Incomplete becomes an F, if not completed. This will affect Standards of Academic Progress and may affect Financial Aid Satisfactory Academic Progress, and therefore financial aid eligibility.

K - Credit	**0 quality points per credit hour**

Credit without a grade, in courses designated in the catalog as graded on a "credit- no credit basis" and for credit earned by examination. "K" grade is defined as equivalent to "C" or higher.

N - No Credit	**0 quality points per credit hour**

Used to designate no credit earned in courses designated in the course description in the catalog as graded on a "credit-no credit" basis.

R - Re-enroll **0 quality points per credit hour**

Indicates that a student's progress is satisfactory, but course competencies have not been mastered. The student should re-enroll in the course. No quality points are awarded.

W - Withdrawal **0 quality points per credit hour**

Indicates official withdrawal prior to the beginning of the 11th week of class. For short-term classes and summer classes, the "W" must be issued before 60% of the class sessions have concluded. These withdrawal dates will apply to all student-initiated withdrawals and faculty "administrative withdrawal" where the instructor determines that the student cannot meet course requirements because of irregular class attendance or failure to successfully complete assignments. Administrative withdrawal may be processed at any time during the semester by the instructor of a course if the instructor dismisses the student for disruptive behavior that interferes with the learning environment or other disciplinary reasons. The Business Office, at any time, may also initiate an "institutional withdrawal" for non-payment of tuition, fees, or any monies due to the college. Students should refer to the Student Rights and Responsibilities in the catalog. A total withdrawal from the institution will be allowed at any time before the last week of a semester (not including final exam week). The student will receive a "W" grade for all ungraded courses at the time of withdrawal. Beginning with the Fall 2012 semester, the "W" grade will be included in attempted hours. This change will not affect the GPA.

X - Audit **0 quality points per credit hour**

Indicates the student registered as an audit student and participated but did not earn credit. A student may switch from credit to audit or audit to credit only during the first two weeks of a semester class or comparable period in short-term classes or summer session.

Z - No Grade Reported

A "Z" grade indicates that the faculty member has not submitted a grade.

 # or ## - Not counted in GPA

A # or ## after a grade indicates that the grade is not calculated in the student's grade point average.

Grade Point Average (GPA) is determined by computing the total number of quality points earned in 100 level or above courses and dividing by the total number of credits in 100 level or above courses in which registered. Cumulative GPA is determined by computing the total number of quality points earned in 100 level or above courses in all eligible college courses taken. Grades in courses transferred from other colleges are included and considered consistent with West Virginia rule.

A in 3 credit hour course (3 x 4) = 12 quality points

B in 4 credit hour course (4 x 3) = 12 quality points

C in two 3 credit courses (6 x 2) = 12 quality points

D in one 2 credit course (2 x 1) = 2 quality points

F in one 3 credit course (3 x 0) = 0 quality points

I in one 0 credit course (0 x 0) = 0 quality points

HERE IS AN EXAMPLE:

38 quality points divided by 15 credits = 2.33 GPA

38 quality points divided by 18 credits = 1.80 GPA

Grades are submitted by faculty members immediately after the end of each course or term or when a grade change is made. Official grades are available online and will be posted on Northern on the Web for students to view and print unofficial copies usually within 10 days from the end of the semester. Students needing an official copy of their grades should do so by requesting an official college transcript. Grades are not available to students who have outstanding financial obligations to the College. Grades are not posted or provided via telephone to assure privacy.

Grade changes can be made only by the course instructor. Grade changes must be made by the end of the next term in which the grade was received, excluding summer sessions, or by grade appeal or approval of the Registrar and the Vice President for Learning/Chief Academic Officer.

Transfer Credit. Based on official transcript information, credit for courses taken previously at other regionally accredited institutions are accepted and treated as if taken at WV Northern. Courses from unaccredited colleges are evaluated on an individual basis. Courses are evaluated toward the degree requirements at WVNCC; therefore, some transfer courses may meet degree requirements and others may count as electives. Courses taken at other WV public colleges and listed on the "Core Coursework Transfer Agreement" will fulfill appropriate general education requirements.

Effective with the Fall 2014 semester, only the grades of A, B, C, and D (or the equivalent) will transfer to WVNCC for newly admitted transfer students. The transfer grade of F will be noted on the transcript as TR-F and count toward attempted hours, but will not be calculated in the grade point average. Students who transferred prior to Fall 2014 will follow the policy in effect at the time they were admitted and will have all grades transcripted.

West Virginia Northern Community College's Deletion of Outdated Course Work from Computation of Grade Point Average policy will be used with "F" grades prior to Fall 2010. "F" grades will be noted on the transcript (**) and count toward attempted hours, but will not be calculated in the grade point average.

In many instances, the College has adequate course information from other area institutions. In other instances, students should be prepared to provide additional information to permit an adequate review. Students are urged to resolve questions about transfer credit prior to enrolling or no later than the first semester of attendance at WVNCC. Students are also cautioned to read and understand all academic policies especially as applied to graduation.

Transcripts

Students may request an official transcript of completed coursework at any time. The College uses the National Student Clearinghouse etranscript service for all transcript requests.The link to the etranscript process can be found by visiting www.wvncc.edu. If a student has an outstanding hold on her/his account, a transcript will not be provided until the obligation is satisfied.

'D' and 'F' Repeat Provisions

Consistent with West Virginia Council for Community and Technical College Education and Higher Education Policy Commission rules, if a student earns a grade of "D" or "F" (including failures because of regular and/or irregular withdrawal) on any course taken no later than the semester or summer term during which the student attempts the 60th semester hour, and if that student repeats this course prior to the receipt of a baccalaureate degree, the original grade shall be disregarded and the grade or grades earned when the course is repeated shall be used in determining his/her grade point average. The original grade shall not be deleted from the student's record. Financial aid will pay for only one repeat of a previously passed course. See financial aid SAP policy for more details.

Academic Forgiveness Provisions

In addition to the "D" and "F" repeat provisions, the College will grant students' requests for deletion of grades for courses taken under the following conditions for purposes of grade point average required for graduation:

- Students must not have been enrolled in college on a full-time basis during any semester or term in the last four consecutive years.
- Only grades for courses taken at least four years prior to the request for academic forgiveness may be disregarded for grade point average computation.
- In cases where grades may be disregarded for grade point average computation, these grades shall not be deleted from the student's permanent record.
- In instances where students request and gain academic forgiveness and then transfer to another institution, the receiving institution is not bound by the prior institution's decision to disregard grades for grade point average computation.

'C' or Higher Grade Repeat Provision

A student may repeat a course in which a grade of "C" or higher was earned. All grades will be calculated in the grade point average. The original grade will not be deleted from the grade point average. Credit hours from repeated courses can only be applied once toward completion of degree requirements. Financial aid will pay for only one repeat of a previously passed course. See financial aid SAP policy for more details.

Graduation Requirements / Certificate or Degree Program

Program requirements in the catalog at the time a student is admitted in an academic degree program will be utilized for certification that a student has completed appropriate degree requirements for graduation provided that graduation requirements are completed within five years. Students may elect to meet program requirements in the current catalog, provided all requirements in the current catalog are followed. Students who do not complete graduation requirements within five years will follow the catalog in effect at the beginning of the sixth year or the year of subsequent re-enrollment. It should be noted that students who do not take West Virginia Northern courses for two consecutive semesters (excluding summer) will be required to complete a new admission application for re-admission and will follow the program requirements in effect at the time of readmission.

Students are urged to work with the academic program advisor concerning any questions regarding graduation requirements. Part-time students who complete courses over a number of semesters will need to plan carefully since programs are frequently updated to maintain currency in career requirements. Substitutions for courses no longer offered by the College may need to be made.

The Records Office certifies students have completed all academic requirements for the awarding of the degree.

If an academic program is terminated, students impacted will be notified in accordance with Council for Community and Technical College Education and Higher Education Policy Commission procedures, and the College will offer the courses needed by currently enrolled students and assist the currently enrolled students in completing the degree program. Generally, a two-year program will continue for a year after the decision for termination is made.

Graduation Requirements - General. All students who graduate from West Virginia Northern will document completion of the following requirements in addition to those required for specific degrees:

- Earn the minimum number of credit hours of academic credit required in the individual's degree program in the specific courses required as certified by the program faculty.
- Demonstrate basic proficiency in reading, English and math as evidenced by demonstration of proficiency on placement tests or completion of the required supplemental coursework and program coursework prerequisites.
- Achieve a 2.0 or higher cumulative grade point average on all college work that is not excluded in the computation of GPA as a result of applying other West Virginia Northern policies such as that for outdated coursework.
- Complete a minimum of 15 semester hours of credit at West Virginia Northern Community College, including the Board of Governors and Occupational Development programs (an exception for Board of Governors major student.
- Fulfill all obligations to the College.
- Complete a First-Year Seminar course within the first year of enrollment. This requirement is limited to students entering Northern as first-time freshmen.
- Complete all college-level courses with a grade of "D" or better unless requirements that are more rigorous are required for a specific major.

Commencement ceremonies are conducted in May at the conclusion of the spring semester. Students who have completed graduation requirements during that year are invited to participate. Specific information is provided when students are provisionally certified for graduation. Diploma covers are presented to those attending the commencement ceremony. Diplomas are mailed to graduates once all degree requirements are certified.

Academic Honors

Students achieving academic success are recognized each semester by three distinctions. The deadline for being recognized for fall honors is February 1, and for spring honor recognition is September 1. The deadline for updating honors on academic transcripts is May 1 for fall courses and December 1 for spring courses. These academic honors are:

Merit List – is for students who earn at least six semester hours in credit classes and have a semester grade point average of 3.25 or higher, including courses numbered below 100 in this catalog.

Dean's List – is for students who earn at least nine semester hours in credit classes and have a semester grade point average of 3.5 or higher, excluding courses numbered below 100 in this catalog.

President's List – is for students who earn at least 12 semester hours in credit classes and have a semester grade point average of 4.0, excluding grades earned in courses numbered below 100 in this catalog.

Honorary Societies

Students who demonstrate academic excellence may be invited to membership in the local chapter of Phi Theta Kappa (PTK), a national honorary society for community and junior college students. Membership in Phi Theta Kappa honorary society is noted on diplomas of members. In addition to PTK, Lambda Nu (LN) is a national honor society for the radiologic and imaging sciences, open to students in the Radiography program who have earned a 3.0 or higher GPA. Its objectives are to "foster academic scholarship at the highest academic levels, promote research and investigation in the radiologic and imaging sciences, and recognize exemplary scholarship." (See Student Organizations, Student Services section).

Graduation Honors

Graduates with an overall grade point average of 3.25 or higher at the end of the fall semester are designated as honor students at the graduation ceremonies.

An Associate degree level student achieving the highest cumulative grade point average and completing the least number of credit hours is recognized as the valedictorian of the graduating class.

Consumer Rules

Equal Opportunity and Affirmative Action Rule

West Virginia Northern Community College is morally and legally committed to a rule of equal opportunity and prohibits discrimination with respect to race, sexual orientation, gender, age, color, religion, disability, veteran status and national origin for all employees, students, prospective students and applicants for employment. West Virginia Northern Community College neither affiliates with nor grants recognition to any individual, group or organization having such discriminatory policies or practices.

This rule extends to all West Virginia Northern Community College activities related to the management of its educational, employment, financial, business and other affairs. It applies to all personnel management practices including, but not limited to, recruiting, hiring, transfer, promotion, training, compensation, benefits, layoff and termination. West Virginia Northern Community College is committed to maintaining an atmosphere that is free of discrimination and harassment in any form.

West Virginia Northern Community College will continue to take affirmative action measures to ensure the entry of qualified minorities, women, veterans and the disabled as defined by law into the faculty, staff and student bodies.

In education, equal opportunity on a merit basis is fundamental to equality in all other forms of human behavior; therefore, commitment to this goal is required of every College employee.

Any infractions of this rule will be subject to disciplinary actions as deemed appropriate and defined by College Rule. Inquiries concerning this rule should be directed to the Director of Human Resources, Robert Brak, who is designated coordinator for Title IX and Section 504. His telephone number is 304-214-8901 and his office is located in Room 119, B&O Building, Wheeling campus. His email address is rbrak@wvncc.edu.

Sexual Discrimination/Harassment Rule

Students at West Virginia Northern Community College are entitled to an educational environment free from all forms of sexual harassment.

No member of the College community may engage in sexual harassment or discrimination against another or conduct herself/himself in a manner that creates a hostile or offensive learning environment. It is the responsibility of any student who knows about sexual harassment or discriminatory conduct to bring it to the attention of a College official.

Sexual harassment includes any unwelcome sexual advances, requests for sexual favors or other verbal or physical conduct of a sexual nature. It is a form of sex discrimination that is both reprehensible and unlawful.

Students should feel free to make complaints concerning allegations of sexual harassment. To the extent possible, strict confidentiality will be maintained in all investigative procedures.

Students who believe that they have been the subject of sexual harassment or discrimination should contact the Campus Counselor for guidance and clarification of complaint procedures.

If a student charges sexual harassment, the Code of Conduct or Academic Sanctions and Appeals Provision applies.

Resource materials regarding sexual harassment are available in the campus Learning Resource Centers. Additionally, the College has a sexual assault rule. For a complete version of the rule, contact the Human Resource Office or Office of the Vice President of Student Services.

Firearms Rule

Firearms, explosives, weapons of deadly force, or other weapons of mass destruction are not allowed on the property except for legally authorized law enforcement officials. The Campus Self-Defense Act Effective July 1, 2024, authorizes any individual with a valid concealed carry permit recognized by the state of West Virginia to carry concealed firearms on campus except for designated no-carry areas.

Any infractions of this rule will be subject to disciplinary actions as deemed appropriate that may include reprimand, probation, suspension, expulsion and referral to law enforcement agencies. Action for visitors may include removal from the premises, future ban from premises, referral to law enforcement agencies, etc.Infractions of this rule should be reported immediately to the Human Resource office, Campus Dean, other college official or law enforcement agency.

Drug-Free Schools and Communities Information

The purpose of this information is to comply with the Drug-Free Schools and Communities Act of 1989 and the Drug-Free Work Place Act of 1988.

This information applies to the entire College community, including students, faculty, staff and visitors to any of the campuses or classroom buildings.

Standards of Conduct: The unlawful manufacture, distribution, dispensing, possession or use of illicit drugs and alcohol on West Virginia Northern Community College property or as a part of any College activity is prohibited. It is prohibited to come to work, class or any College-sponsored function under the influence of alcohol or illicit drugs.

Disciplinary Sanctions: Consistent with College, local, State and Federal laws, the College will impose disciplinary sanctions for violation of the standards of conduct outlined above and prohibited in the Drug-Free Schools and Communities laws. Violations could result in expulsion from school, termination of employment and/or referral to law enforcement agencies as is consistent with College policies. Federal trafficking penalties include substantial fines and imprisonment up to life. West Virginia Law provides for penalties dependent on the classification of the substance, the activity involved and other convictions. The most severe penalties are for possession with intent to sell. Convictions may provide for fines and/or imprisonment with the amount and time dependent upon other factors.

College sanctions will be consistent with procedures used in other disciplinary actions as described in the Student Code of Conduct and Governing Board rule. For employees, sanctions may include oral warning, written reprimand, suspension, termination and referral to law enforcement agencies. Disciplinary sanctions for students may include reprimand, probation, suspension, expulsion and referral to law enforcement agencies. Action for visitors may include referral to law enforcement agencies.

Health Risks: There are many known health risks linked to the use of alcohol and illicit drug use. Preventable illness, disabilities and deaths are estimated to affect 25.5 million Americans.

Alcohol: Alcohol abuse is often characterized by one of three different patterns: (1) regular and daily use, (2) drinking large amounts of alcohol (binging) at specific or irregular times, or (3) periods of sobriety interspersed by periods of heavy drinking and intoxication. The disorder is progressive and can be fatal. If you recognize any tendencies toward alcohol abuse in yourself, your friends or loved ones, please seek help as outlined below.

HEALTH RISKS OF OTHER DRUGS INCLUDE:

Narcotics (including opium, morphine, codeine, heroin and others): Physical addiction, loss of awareness, respiratory restriction and possible death.

Depressants (including barbiturates, Quaaludes and others): Slurred speech, disorientation, shallow respiration, coma is likely with overdose.

Stimulants (including cocaine, amphetamines and others): Increased heart rate and blood pressure, possibly leading to death; increased excitation; loss of appetite.

Hallucinogens (including LSD, "mushrooms," PCP, mescaline and others): Illusions and hallucinations; poor perception of time and distance; psychotic and unpredictable behavior, often leading to injury and arrest. Symptoms may reappear (flashback) some time after use.

Cannabis (marijuana, hashish, THC and others): Unrealistic euphoria, diminished inhibitions, disoriented behavior, diminished motivation, increased pulse.

Counseling and Referral Assistance: Help and referral are available in each Campus Counselor's Office. Services are confidential. A listing of some available community resources is in the Student Handbook and in the Campus Counselor's Office on each campus. There are many resources to help you or anyone you care about find treatment.

Additional information is available in the Student Handbook.

Compliance Notifications

The College provides annual notification to students (and faculty, staff as required by law) under the provisions of the Higher Education Act of 1974, as amended, for compliance with Student Right to Know Reporting and under provisions of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1998 (Clery Act) relating to Campus Crime Reporting/Disclosure. The College has available in written form through Campus Student Service Centers required statistics and publications which are also posted on its website. The College complies with the Timely Warnings notification of the Clery Act, as needed.

Red Flag Rules

The Federal Trade Commission (FTC) www.ftc.gov, the federal bank regulatory agencies, and the National Credit Union Administration (NCUA) www.ncua.gov have issued regulations (the Red Flag Rule) requiring financial institutions and creditors to develop and implement written identity theft prevention programs, as part of the Fair and Accurate Credit Transactions (FACT) Act of 2003. In compliance to this new rule, West Virginia Northern Community College has established a policy to respond to fraud and activity duty alerts. The College will properly dispose of consumer report information and provide information to victims of identity theft. We will properly handle notice of identity theft and respond to any notification received from identity theft to prevent refurnishing blocked information. West Virginia Northern Community College will comply with the rules regarding sharing information with affiliates and provide an oral, written, or electronic notice when a possible flag has been set. The College will also comply with the guidelines adopted by the Federal banking agencies, and the FTC for use when furnishing information to a Credit Reporting Agency (CRA) regarding the accuracy and integrity of the information relating to the consumer that such entities furnish to CRAs. We will provide notice regarding negative information and take appropriate action when receiving a notice of discrepancy in the consumer's address.

Catalog Rule

This catalog is provided for informational purposes to students/applicants and contains official announcements of College rules, programs of study and courses offered. This catalog does not constitute a contract, expressed or implied,

between any applicant, student or graduate of West Virginia Northern Community College. The College reserves the right to appeal, revise or amend information contained herein.

Interim catalog addenda may be issued during the life of this publication. It is the responsibility of the student to read and abide by the catalog and any subsequent addenda that may be published.

Students enrolling at West Virginia Northern Community College must follow the program requirements in the catalog in effect at the time of entry into the College (provided graduation requirements are completed within five years). Students have the option of meeting program requirements in a later catalog, provided all requirements of the later catalog are met.

Securing a degree does not guarantee employment. Employment is a contract/agreement between employee and employer; the College is not responsible for the hiring decision of any employer.

State Authorizations for Distance Education

West Virginia Northern Community College is working in good-faith to achieve compliance as established in HEOA 600.9 (c):

"If an institution is offering postsecondary education through distance or correspondence education to students in a State in which it is not physically located or in which it is otherwise subject to State jurisdiction as determined by the State, the institution must meet any State requirements for it to be legally offering postsecondary distance or correspondence education in that State. An institution must be able to document to the Secretary [of Education] the State's approval upon request. (Authority: 20 U.S.C. 1001 and 1002)"

Complaint Resolution

In compliance with the new regulations, an institution offering distance education must provide enrolled and prospective students with contact information for filing complaints with its accrediting agency, the West Virginia State SARA portal entity, and with the appropriate state agency for handling complaints in the student's state.

SARA Complaint Process

Students who are enrolled in a WVNCC course who have a complaint about a course or experience should follow WVNCC's complaint, grievance, and appeal procedures.

Students located in a State Authorization Reciprocity Agreement (SARA) state who have a complaint about WVNCC, must first go through the standard procedure for resolution of student grievances. If a student is not satisfied with the outcome of that process, a complaint may be brought to the WVNCC SARA portal entity. The SARA portal entity in the state where the student is located will be notified that the complaint was received and may assist as needed. Resolution of the complaint by the SARA portal entity in the institution's home state is final.

Examples of types of student complaints that may be brought to a SARA portal entity include, but are not limited to, complaints regarding accuracy of job placement data, tuition or fee information, accreditation, whether a program meets licensure requirements, or course transfer information. Grade appeals and student conduct appeals are not allowed under SARA.

Complaint Resolution Contacts By State
In compliance with Federal Department of Education regulations, click this link: Student Complaint Information by State and Agency Student Complaint Information by State and Agency for information about filing consumer complaints in the states in which WV Northern Community College offers distance education programs.

If you need additional assistance in locating state complaint procedures, please contact Janet Fike, Vice President of Student Services at 304-214-8845, jfike@wvncc.edu

WV Northern Community College Accreditation

WV Northern Community College is regionally accredited by the Higher Learning Commission of the North Central Association. The Commission has authorized WV Northern Community College to offer all its associate and certificates online. Click here for information about filing a complaint.

WV Northern Community Student Grievance Procedure

WV Northern Community College has a Student Grievance Process and form that you are encouraged to utilize. For information or questions about this procedure, contact the Vice President of Student Services, 304-214-8845, jfike@wvncc.edu.

Academic Support Services

Academic Resource Centers

All three West Virginia Northern Community College campuses provide student support through the Academic Resource Centers (ARC). The ARCs located on each campus are staffed by professionals and paraprofessionals who provide academic and personal skill development opportunities. The ARCs provide students with the following:

- individual and interactive academic spaces
- programs that enhance academic success
- research assistance
- guidance in using their student portal and D2L system
- tutoring support, including an online tutoring option
- ADA accommodation support and services
- Test proctoring

Academic Alert Program

The Academic Alert System is a proactive communication tool that allows instructors to voluntarily alert students regarding their progress. Alerts can be issued to redirect or reaffirm student learning.

Accessibility & ADA Accommodation

West Virginia Northern Community College is committed to assuring that students with disabilities are afforded the same opportunities and the same responsibilities as all other students.

To Register with Accessibility Services:

Contact the ARC at ada@wvncc.edu or call 304.723.7517 to schedule an appointment for intake and registration. An Accessibility Coordinator will work with faculty, staff, and community agencies to arrange for reasonable and appropriate accommodations.

IMPORTANT: Documentation should be provided during the intake and registration appointment. This needs to take place well in advance of coursework, to allow time for coordination of accommodation with faculty, staff, and other service providers or to secure equipment which may be necessary.

Brightspace Assistance: ARC staff are well prepared to help students develop proficiency using Brightspace, WVNCC's learning management system (LMS).

Registration Assistance: ARCs are equipped with computers and accessible, knowledgeable staff who can answer questions regarding the registration process and navigation of online tools and systems.

Study & Work Space: ARCs welcome students for quiet, contemplative study or energized, collaborative group sessions.

Technology Lab: ARCs offer desk top, laptop, and tablet resources for student use on campus.

Tutoring & Study Support: Free tutoring is available to all enrolled WVNCC students. Each campus offers tutoring in a variety of subjects including English, Biology, Math, Accounting, Computer Information Technology and more. Schedules vary each semester and are available online or by contacting the ARC. Employment as a tutor and/or work-study is also available to qualified students.

Online Tutoring & Support: WVNCC tutors are available online by appointment. Brainfuse, available through the Student Portal, offers live, on-demand virtual tutoring twenty-four hours a day, seven days a week.

West Virginia Northern Community College encourages students to take a proactive approach to learning by using the resources provided by the ARC on campus and online.

Directory

Archived Catalogs

To view catalogs prior to 2018-2019, click on the link below:

https://www.wvncc.edu/current-students/wvncc-college-catalog-archive/3833

Program Advisory Committee

West Virginia Northern Community College operates an Advisory Committee system to help improve and enhance the quality of the College's programs and services for students and the employers of the Northern Panhandle. Advisory committees function to advise and assist in occupational manpower needs; understanding trends that could influence program development; reviewing curricula to ensure their relevancy; placing interns, cooperative education students, and graduates.

Associate of Arts Advisory Committee

Crystal Harbert, Program Director, WVNCC; **Dan Evans**, HEI Engineering Group; **Lori Hostuttler**, Director, WV and Regional History Center, WVU Librarian; **Jeremy Larance**, Professor of English, West Liberty University; **Ryan Pasco**, Project Director of the Manufacturing and Production Skills (MAPS), WVNCC; **Bambi Roberts Brewer**, AI Project Engineer, Carnegie Mellon University; **Brian Schamp**, Human Resources Representative, WVNCC; **Sara Wood Shaw**, Vice Mayor of Moundsville; **Jamie Meneely**, Radiology Manager, Wheeling Hospital.

Associate of Science Advisory Committee

Anna Edlund, Ph. D Chair, Biology Department, Bethany College; **Kylie Krieger**, Science Department Head Student Council Advisor, Cameron High School; **Gregory Pond**, State employee, Environmental Protection Agency; **Nadya Povysheva,** PhD Teaching Assistant Professor, Neuroscience University of Pittsburgh; **E. Joseph Nolan IV**, data scientist in advanced analytics R&D for Highmark Health; **Jaclyn Robinson**, Brooke High School Science Department, Department Chairperson, Honors Committee Chairperson; **Karen Kettler**, PhD, Professor of Biology, Dean, College of Sciences, West Liberty University; **Dr. Shelby Heath**, Assistant Professor of Chemistry, West Liberty University.

Business Advisory Committee

Barry Allen, VP Sales & Marketing, Ziegenfielders Ice Cream Co; **Tim Bidwell**, Senior Audit Manager, CPA; Partner, Hazlett, Burt & Watson; **Julie Cunningham,** Human Resource Manager, Orrick, Herrington & Sutcliffe; **Glenn Elliott,** Mayor City of Wheeling; **David Glatz,** CPA; **Marian Grubor,** Retired Division Chair/Program Chair; **Dr. Jill Loveless,** V.P. Academic Affairs WVNCC; **Frank O'Brien,** Director Whg. Ohio County Convention & Visitors Bureau; **Scott Owen,** Business Instructor WVNCC; **Matt Porter,** Human Resources & Production Manager, Ziegenfielders Ice Cream Co; **Pat Roper,** Program Director of Business WVNCC; **Charleen Stokes,** Instructor WVNCC; **Erikka Storch,** President, Wheeling Area Chamber of Commerce.

Computer Information Technology Advisory Committee

Paul Lauttamus, Lauttamus Communications; **Rik Rekowski,** Mary C. Weir Library; **Ashley Blacker,** Williams Lea; **Sara Stone,** WesBanco; **Vince Azzarello,** Heathways; **Bob Roset, Buck Bryan, Larry Welling, Phil Brossman, Chris Sommer, Malachi Anthony,** The Health Plan; **Wes Ebeling,** TSG Leads; **Stephanie Duffy-Zimmer,** Brooke County Board Education; **Kurt Zende, Brooke Anderson,** Wheeling Chamber; **Mary Ball,** Brooke Hancock FRN; **Jason Quattrochi,** Weirton Geriatric Center; **Larry Malone,** Malone Consulting & Strategies; **Matt Turner,** HEPC; **Mary Stewart,** WVNET; **Bill Gardner,** Marshall University; **Matthew Gonzalez, Dr. Adam Beatty,** University of Charleston; **Priscila Santos,** Fairmont State University; **Lisa Reilly,** Bethany College**; Naveed Zaman,** WV State University; **Ted Lewis,** Bluefield State; **Jody Ogle,** WV National Guard; **Jeff Vandall,** WV Development Office; **Sarah Tucker,** WVC&TC; **Lori Whitt, Tim Elliott** WV Department of Education; **Jim Estep,** WV High Tech Foundation; **James Sharpe,** CSRA; **Jeff Tucker,** Leidos; **Richie Wilbur,** Advantage Tech; **Norm Gundersen,** Global Science and Tech; **Glenn Copen,** Key Logic; **Lindell Alderman,** F5 Networks; **Jason Rolleston,** McAfee; **Gerard Eldering,** InnovateTech Ventures, LLC; **Aaron Sporck,** Senator Capito's Office**; Braxton Robbins,** WesBanco; **Valerie Piko,** Regional Economic Development Partnership (REDp); **Stephanie Hockenberry,** Manager of Economic Growth and Retention for Ohio County; **Joseph Deplato,** Co-Founder & CTO Drone Trace; **Chuck Weissenborn,** Public Sector CTO D.O.D Dragos; **Matt Perry,** Secure WV; **Eric Hersey,** Eric Hersey Web Design; **Chris Wendt,** HyperDo Inc.; **Ron Magers,** Wheeling University; **Todd Morrison,** Omni Strategic Technologies; **Matt Turner,** HEPC; **Chris Corbin,** Manager of Technology, WVNCC; **Jeremy Doolin,** Instructor WVNCC; **Heidi Ryan,** Instructor, WVNCC; **Jeff Sayre,** CFO/VP of Administrative Services, WVNCC; **Vikram Tugali,** CIT Program Director and AT Division Chair, WVNCC

Criminal Justice Advisory Committee

Sergeant Darren Matthews, West Virginia State Police; **John Lantz,** WVNCC Criminal Justice Program Director; **Chief Shawn Schwertfeger,** Chief of Police, Wheeling Police Department; **Officer RJ Faldowski,** Wheeling Police Department, WVNCC Campus Security; **Dr. Angela Hawk,** VPL/CAO WVNCC; **Sheriff Nelson Croft,** Ohio County Sheriff's Office; **Dr. Daniel Mosser,** President WVNCC; **Ricky Grishkevich,** WVNCC Campus Security Weirton; **Chief Tom Mitchell,** Chief of Police, Moundsville West Virginia Police; **Chief Charlie Kush,** Chief of Police,

Weirton West Virginia Police; **Sheriff Mike Dougherty,** Sheriff Marshall County; **Heidi Napier,** WVNCC CRJ Facultyt Faculty; **Tammy Kruse,** Administrator Youth Services Systems; **Sheriff Scott Gittings,** Hancock County Sheriff's Office; **Sheriff Richard Beatty, Jr,** Brooke County Sheriff's Office; **Chief Tim Cecil,** Chief of Police, New Martinsville, WV; **F. Catlett**, Chief Secretary, Wheeling Police Department; **Kent Lewis**, Chief Deputy, Ohio County Sheriff's Office; **Brenda Steiniger**, WVNCC; **Monica Provenzano**, Director, YWCA; **Misty Adams**, Superintendent, NRJ.

Culinary Arts Advisory Committee

Rocco Basil, Executive Certified Chef, Diocese of Wheeling Charleston; **Jill Hillberry,** ProStart Instructor; **Dr, Angela Hawk,** WVNCC VPL; **Lock Johnson,** Ohio County Health Department; **Jonathan Monroe**, Ohio County Health Department; **Chris Kefauver,** Professor Culinary Arts WVNCC; **Darcy Riggs-Suslovic**, Instructor Culinary Arts WVNCC; **Sarah Lydick,** Sarah's on Main; **Leslie Miller-Lanos,** US Foods; **Sean Pabin,** Supervisor, Belmont County Jail; **Josey Stern,** Izzy's Food Truck, Graduate WVNCC Culinary Arts; **Mike Swan,** National Equipment; **Jade Waligura**, National Equipment; **Matt Welsch,** Vagabond Kitchen, Owner; **Glenn Zalenski,** Prostart instructor JVS; **Beau Dittmar,** Parkhurst Dining/Franciscan; **Vikram Tugali**, Division Chair, WVNCC; **Doug Orr**, District Manager Elior FS; **Chatman Neely**, Barn with Inn B&B; **Beth Myers**, WVNCC Gradute; **Brittney Hervey Farris**, Family Roots Farm; **Sara Miller**, Martha's Gallery; **Morales Adan**, Oglebay; **Bob Pottberg**, Oglebay, Hotel GM; **Lizzy McAninch**, WVNCC Culinary Student; **Patrick Boldrick**, WVNCC Culinary Student

Early Childhood Care & Education Advisory Committee

Maclaine Newhart, Program Director-WVNCC; **Amber Boring,** Northern Panhandle Head Start; **Jasmine Reynolds,** King's Daughter's Child Care Center; **Miriam Douglas,** Director, Community Education-West Liberty University; **Terra Crews**, Director-Holy Family Child Care & Development Center; **Sarah Schimmell,** Pre-K Education-West Liberty University; **Helen Bradley,** The IDEA Center.

Energy Technology/Compressor Mechanic Advisory Committee

Dr. Daniel Mosser, President WVNCC; **Dr. Angela Hawk**, VPL WVNCC; **Vikram Tugali**, Division Chair WVNCC; **Kari Mulhern**, VP for Continuing Education & Workforce Development WVNCC; **Curt Hippensteel**, Program Director WVNCC; **Jordan Santonas**, MPLX; **Roger Clegg**, Williams; **Max Davis** MPLX; **Mike Bonanno**, MPLX; **Tina Rush**, MPLX; **Ethan Nally**, Expand Energy; **Gage Lilley**, WVNCC Student/Expand Energy intern; **Brent Riggle**, Ascent; **Kurt Kowalski**, CJ Hughes; **Ricky Yoho**, Wood Group/Danos; **Brandon Belford**, MPLX; **Corey Schilling**, Expand Energy; **Brandi Hobbs**, Long Ridge Energy Generation; **Brandie Cowden**, Williams; **Robert Rafalko**, WPI; **Derek Hughes**, Antero Midstream; **Frank Parker**, EQT

Health Information Technology Advisory Committee

Deborah Kleeh, WVNCC; **Dr. Angela Hawk**, WVNCC; **John Modra**, WVNCC; **Bonnie Peterman**, WVNCC; **Amanda Logston**, WVNCC; **Andrea Strosnider**, Crane Ware Group / WVNCC; **John Antal**, Children's Home of

Wheeling; **Misty Barnett**, WVNCC HIT Student; **Lillian Comer**, WVNCC HIT Student; **Cybil Cramer**, WVNCC MBC & HIT Graduate; **Mia Crow**, WVNCC HIT Graduate; **Sarah Graham**, WVNCC HIT Graduate; **Molly Hanning**, Medical Business Administration, Inc.; **Brittany Hetzer**, WVNCC HIT Graduate; **Rosemarie Jenkins**, WVNCC HIT Student; **Jenna Jones**, WVNCC HIT Graduate; **Sierra Klages**, WVNCC HIT Graduate; **Patricia Landino**, WVNCC HIT Student; **Alisa Loy**, WVNCC HIT Graduate; J**essica Mattern**, WVU Medicine - Weirton Medical Center; **Deborah McKennen**, WVNCC HIT Graduate; **Kailey Morgan**, Memorial Health System; **Paula Sago**, WVU Medicine – Wheeling Hospital; **Tiffany Staffilino**, WVU Medicine - Weirton Medical Center / WVNCC HIT Graduate; **Dora Wallace**, WVNCC Administrative Assistant Graduate; **Jason White**, WVNCC HIT Graduate; **Aubreianna Wine**, WVNCC HIT Student; **Bella Wyatt**, WVNCC MBC Student

Heating, Ventilation, Air Conditioning and Refrigeration Advisory Committee

Dan Cook, Production Manager-Wheeling Heating/Cooling; **Joe Winklmann,** Service Manager of A-Tech; **J. Michael Valent,** General Manager-Climatech; **John Labriola,** WVNCC; **Steve Frame,** Owner-Frame Heating and AC; **Jordan Indermuhle,** Owner-Bee Electric.; **Mike Swann,** National Equipment Co; **Debbie Wood**, Operation Manager- National Equipment Co.; **Mike and Debbie Kucera**, Owner- Kucera Plumbing Heating, Cooling and Sheet Metal; **Tim Mizer**, Director of Engineering- McKinley Engineering; **Ryan Carney**, Co-owner- Carney & Sloan; **George Loliathin**, Owner- G&L; **Jerry and Nichole Williams**, Owners- Elite HVAC; **Jason Dean**, Local 83; **Josh Matusca**, HR-Tudi; **Joe Barker**, Owner- JB Mechanical; **Antonio Ritter**, Sales- Casto; **Frank Vranovich**, Representative- Castro; **Kelley Loudin**, Rumor Loudin

Human Services Advisory Committee

Heidi Napier, Program Director-WVNCC; **Greg Blazy**, Human Resources-Youth Services System, Inc.; **Dr. Warren Galbreath,** Director Undergraduate Social Work Program-Ohio University Eastern; **Mark Games,** Northwood Health Systems; **Terry Kiser,** Healthways; **Melanie Sinclair,** BSW Program Director-West Liberty University, **Haley Rauschenberg,** Clinical Director-Augusta Levy Learning Center; **Sylvia Hawranick-Sneften,** BSW Program Director-West Liberty University; **Claudia Raymer,** Ohio County Family Resource Network; **Tammy McClain,** Director, Psychology Program-West Liberty University; **Kathy Herrington**, Adjunct, West Liberty University, **Megan Gandy,** BSW Director-West Virginia University.

Licensed Practical Nursing Advisory Committee

Hannah Westfall, WVNCC; **John Modra**, WVNCC; **Doug Minor**, WVNCC; **Brenda Sole**, WVNCC; **Mildred Dutton**, WVNCC LPN Student; **Amie Gorell**, WVNCC Adjunct Faculty; **Ashley Guiler**, Wetzel-Tyler Health Department; **Elizabeth McCamick**, WVNCC Adjunct Faculty / Fox Run Hospital; **Christa Nash**, WVNCC; **Kristin Sampson**, WVNCC LPN Graduate; **Mary Jane Scyoc**, Wetzel County Hospital

Medical Assisting Advisory Committee

Dr. William Mercer, MD, Wheeling Clinic; **Sheila Schultz,** Wheeling Hospital; **Deborah Cresap,** WVNCC; **Lori Burdette,** Wheeling Hospital; **Kimberly McConnaughy,** RESA VI; **Jessica Kimberly,** Billing & Coding; **Jessie Ludolph,** Graduate; **Megan Case,** Current Student Representative; **Jim Blazier; Michelle Watson,** WVNCC; Dr. Jill Loveless, WVNCC.

Medical Laboratory Technology Advisory Committee

Lisa Aaron, WVNCC; **John Modra**, WVNCC; **Michael Coefield**, UPMC Washington and Greene; **Emily Maguire,** WVU Medicine – Reynolds Memorial Hospital; **April Norris**, WVU Medicine – Wetzel County Hospital; **Cara Pasco,** WVU Medicine – Barnesville and Harrison Hospitals; **Margaret Pyles**, WVU Medicine – Wheeling Hospital; **Aulbrey Thompson**, WVU Medicine – Weirton Medical Center

Nursing Advisory Committee

Jill Keyser, WVNCC; **Dr. Angela Hawk**¸ WVNCC; **John Modra**, WVNCC, **Maryanne Capp**, WVU Medicine - Weirton Medical Center; **Erin Cool**, Select Specialty Hospital; **Kim Crow**, West Liberty University; **Joi Gorlock**, WVU Medicine – Weirton Medical Center; **Terri Lyons**, WVU Medicine – B. M. Spurr School of Practical Nursing; **Heather Morris**, WVU Medicine – Wetzel County Hospital; **Irene Powell**, WVU Medicine – Reynolds Memorial Hospital; **Stacy Russell**, WVU Medicine – Wheeling Hospital; **Linda Jo Shelek**, Wheeling Health Right; **Bryan Woodford**, WVU Medicine – WVU Medicine – Reynolds Memorial Hospital

Radiography Advisory Committee

Misty Kahl, WVNCC; **Missy Stephens**, WVNCC; **Tami Alfred,** WVNCC; **Ashley Glover**, MHS/Sistersville General Hospital; **Metta Hoff**, WVU Medicine (WVUM)-Wheeling Clinic; **Billi Riggs**, WVUM-Wellsburg Clinic; **Tonya Trigg**, WVNCC Adjunct Clinical Preceptor (WVUM-Wheeling Hospital); **Molly Dutton**, WVNCC Adjunct Clinical Preceptor (WVUM-Wheeling Hospital); **Miranda Schrack**, WVNCC Adjunct Clinical Preceptor (WVUM-Wheeling Hospital); **Gwen Kinnan**, WVUM-Bellaire Health Center and St. Clairsville Health Center; **Karen Mihalic** & **Tiffany Hart-Gatten**, WVUM-Barnesville Hospital; **Shelley Snyder**, **Kyle Johnson**, & **Diana Olejasz Howell**, WVUM-Reynolds Memorial Hospital; **Patty Payne**, Med Express Wheeling; **Jamie Meneely**, **Amanda Starr**, & **Amanda Miller**, WVUM-Wheeling Hospital; **Lisa Soly**, WVNCC; **John Modra**, WVNCC; **Dr. Angela Hawk**, WVNCC; **Kathleen Combs**, WVUM-Reynolds Rapid Care-Mt. Olivet; **Rachel Donley**, WVUM-Reynolds Rapid Care-Moundsville; **Ashton (Thompson) Brown**, WVUM-Reynolds Rapid Care-Benwood; **Kerri Smith**, WVUM-Reynolds Rapid Care-Benwood; **WVNCC Radiography Program Class President**; **WVNCC Radiography Program Student Government Association (SGA) Representative (if applicable)**; **Pam Bowers**, WVUM-Wetzel County Hospital; **Jamie Browning**, WV Medical Imaging & RAD Therapy Board of Examiners; **Veronica Marcucci** & **Jodi Hildreth**, UPMC-Washington Hospital; **Debbie Gongola**, **Jessica Williams**, **Heather Yost**, & **Margaret Porter**, WVUM-Weirton Medical Center.

Respiratory Therapy Advisory Committee

Marybeth Emmerth, WVNCC; **Dr. Angela Hawk**, WVNCC; **John Modra**, WVNCC; **Kathleen Compton**, WVNCC; **Jennifer Alley**, Marietta Memorial Hospital; **Maryann Capp**, Project Hope Volunteer; **Stephen Fox**, Dasco; **Nicole Francis**, WVU Medicine – Reynolds Memorial Hospital; **John Gale**, Select Specialty Hospital – Wheeling; **Richard Haines**, WVU Medicine – Weirton Medical Center; **Joe LaSalle**, Trinity Medical Center; **Paige Lawson,** WVU Medicine – WVU Children's Hospital; **Ralph Lucki**, Phillips Consultant; **William Pancake**, WVU Medicine – Wetzel County Hospital; **Desiree Poach**, WVU Medicine – Ruby Memorial Hospital; **Lynn Swider**, WVU Medicine – Wheeling Hospital; **Dr. Vipin Vilgran**, Medical Director, WVU Medicine – Wheeling Hospital

Substance Abuse Intervention Advisory Committee

Heidi Napier, Program Director, WVNCC; **Jaime Cantley**, Recovery & Resilience Administrator System of Care, WV Certification Board for Addiction and Prevention Professionals – WVCBAPP; **Dave Bailey,** CE Director, WV

Certification Board for Addiction and Prevention Professionals; **Carolyn Canini,** Director of Behavioral Health Programs, WV Higher Education Policy Commission; **R.J. Canter,** Faculty member, WVNCC; **Brianna Newhart,** Faculty member, WVNCC; **Nic Cochran,** Region 1 Partnerships for Success Prevention Programs Administrator Prevention Specialist II, Youth Services Systems, Inc. Prevention Services; **Rebecca Friend**, Recovery Peer Coach Lead, NP Workforce Development Board, Inc, NPWD; **Lori Garrett-Bumba,** Project Director, Collegiate Strategic Prevention Framework Partnership for Success, Marshall Center of Excellence for Recovery, MURC; **John Lantz,** Division Chair, Program Director, Criminal Justice, WVNCC; **Stacey Minter,** Alumni, WVNCC; **Martha Polinsky,** WVCIA coordinator, Marshall University Research Corp; **Dara M. Pond,** Director of Prevention Services, Youth Services System, Inc.; **Carol Robison,** Director, Miracles Happen; **Jeremy Sagun,** Director, Substance Abuse treatment Northwood Health Systems; **Valery Staskey,** Community member/social worker; **Jodie Taylor Canter,** Community member; **Maggie Cha,** Secretary, WVU Medicine; **Laura Albertini-Weigel,** Director, WIND program, YWCA; **Megan Herter,** RMH Recruiter, WVU Medicine Reynolds Hospital; **Jeanette Ziegler,** Alumni, WVNCC; **Kathy Herrington**, Adjunct, West Liberty University.

Surgical Technology Advisory Committee

Tami M. Roscoe, WVNCC; **Dr. Angela Hawk**, WVNCC; **John Modra**, WVNCC; **Erin Carr**, WVNCC; **Sara Walter**, WVNCC; **Lisa Baker**, WVNCC; **Sherri Alig**, WVU Medicine – Wheeling Hospital; **Jennifer Bakkenist**, UPMC Passavant; **Dr. Raymond Bannan**, Physician's Regional Surgery Center; **Marcus Cofield**, UPMC; **Jennifer Malcolm**, WVU Medicine – Ruby Memorial Hospital; **Kathleen Nauer**, UPMC Magee; **Allison Sauvageot**, WVNCC ST Student; **Crystal Snitz**, WVU Medicine – Ruby Memorial Hospital; **Bonnie Vetanze**, TCL Manufacturing Company; **Nicole Whitlock**, WVU Medicine – Ruby Children's Hospital; **Kelly Wright**, WVU Medicine – Wheeling Hospital

Welding Advisory Committee

Tim Miller, Sky Oxygen; **Eric O'Donnell,** Local 83; **James Mull,** Mull Machine; **Evan McCorkal,** Lincoln Electric; **Chris Neupaver,** Tristate Machine, **Steve Terry,** Local 549; **Tom Welch,** Bidell Gas Compression; **David Raveaux,** WITTS; **Scott Muzzelli,** Local 33.

Administrative Staff

The following list contains primary academic credentials of administrators and staff employees who support student services and academic programs described in this catalog and are not full-time faculty.

Further Study refers to courses taken that apply toward another degree; Additional Study refers to miscellaneous courses that do not apply toward a specific degree.

ALFRED, TAMI, Director of Student Services; A.A., Potomac State; B.A., M.A., West Virginia University

AUBER, JOSEPH, Director of Facilities and Project Management; C.F.M., International Facilities Management Association

BARNHARDT, DAVID, Director of Communications & Student Recruitment; B.A., University of Akron

BLAHA, REGAN, Director of Student Engagement; B.S., West Virginia University, M.A., West Virginia University

BRAK, ROBERT, Director of Human Resources & Development, Title IX Coordinator; B.S., West Virginia University

CORBIN, CHRISTOPHER, Director of Information Technology; A.A.S., West Virginia Northern Community College

CRAIG, CINDY, Director of the Academic Resource Center (ARC); B.S.S., Ohio University; M.L.S., M.S., Emporia State University

DOOLIN, WENDY, Director of the Center for Excellence in Learning and Teaching; B.A., West Liberty University; M.M.Ed., Bowling Green State University; M.S., Southern New Hampshire University.

EDWARDS, TINA, Manager/Campus Operations, Weirton Campus: A.A.S., West Virginia Northern Community Colleg; B.S., Mountain State University; M.S., West Liberty University

FIKE, JANET M., Vice President of Student Care and Success; B.S., West Virginia Wesleyan College; Eastern Illinois University; Further Study: Marshall University

HAWK, ANGELA, Vice President for Learning; B.A., M.A., Ph.D., University of California

KAPPEL, STEPHANIE, Chief of Staff & Executive Assistant to the President; B.A., Bethany College; M.A., West Virginia University

MILLER, JUSTIN, Director of Financial Aid, B.A., Bethany College, M.S., Duquesne University, Ed.S., North Greenville Unversity.

MOSSER, DANIEL, President; B.S., California University of Pennsylvania; M.Ed., University of Maryland; Ph.D., University of Maryland

MULHERN, KARRI, Vice President of Continuing Education and Workforce Development; B.A., Bethany College; M.P.A., University of Pittsburgh.

SAYRE, JEFFREY, CFO/Vice President of Administrative Services; B.A., West Virginia University, M.B.A., Franscican University of Steubenville

SCHRUMP, APRIL,Comptroller; A.A.S., West Virginia Northern Community College; B.S., West Liberty University.

SHARMA, PURNIMA, Vice President for Planning, Institution Effectiveness, and Research; Professor, Physics/Mathematics; M.S., Ohio State University; Ed.D. Nova Southeastern University (Fla.); Additional Study: West Virginia University, Marshall University, West Virginia Northern Community College

SOLY, LISA, Director of ACTion Center; B.S., Bethany College; M.S., West Virginia University

SPURLOCK, RANA, Director of Institutional Advancement, Title III Program Director; B.A., Wheeling Jesuit University

WILLIAMS, IDA-JANNETTE, Director of High School Pathways and Partnerships; B.A., Washington & Jefferson College

YAICH, TRACY, Director of TRIO Upward Bound; B.S., M.Ed., Ashford University.

YESENCZKI, REBECCA, Registrar; A.A.S., West Virginia Northern Community College; B.S., Mountain State University; M.A., Marshall University

Cabinet

Daniel Mosser, President

David Barnhardt, Director of Communications & Student Recruitment

Robert Brak, Director of Human Resources & Development

Janet Fike, Vice President of Student Care & Success

Angela Hawk, Vice President for Learning

Stephanie Kappel, Chief of Staff and Executive Assistant to the President

Karri Mulhern, Vice President for Continuing Education and Workforce Development

Jeffrey Sayre, CFO/Vice President of Administrative Services

Pam Sharma, Vice President for Planning, Institutional Effectiveness, & Research

Rana Spurlock, Director of Institutional Advancement

English

Before you enroll in an college-level English course, you should consult the corresponding guide below. Each guide addresses common questions about the course and provides a set of sample exercises typical to the course. You will be able to select the best enrollment option for yourself by reading the questions and working through the exercises. ENG 097 is available as a preliminary course you think you need more preparation for ENG 101 or ENG 115.

English Self Placement Guides:

ENG 101

ENG 115

Guided Self Placement

Faculty

The following list contains titles and primary academic credentials of full-time faculty. Qualified part-time faculty, including some administrators and staff, also instruct some courses.

Further Study refers to courses taken that apply toward another degree; Additional Study refers to miscellaneous courses that do not apply toward a specific degree.

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |Y | Z |

AARON, LISA: Program Director/Instructor of Medical Laboratory Technician; A.A.S., Lorain County Community College; B.S., Fayetteville State University.

BAKER, CHANA: Associate Professor of English, English; B.S., West Liberty University; M.A., Southern New Hampshire University; Additional Study: West Virginia Northern Community College.

BINKIEWICZ, TRICIA: Assistant Professor of Nursing; A.A.S., West Virginia Northern Community College; B.S.N., Ohio University; M.S.N., Western Governors University

BUCHANAN, HOLLIE L.: Associate Professor of Mathematics; B.A., M.S., Ph.D., West Virginia University.

CANTER, RAYMOND J.: Associate Professor of Psychology and Human Services; B.S., Wheeling Jesuit University; M.S., Shippensburg University.

CARR, ERIN: Instructor for Surgical Technology; Certified Surgical Technologist (CST) A.A.S., West Virginia Northern Community College.

CASSIDY, MARY ELLEN: Assistant Professor of Mathematics; B.S., M.S., Wheeling College.

COMBS, ROBERT: Instructor of Welding, 45 years of on-the-job work experience as a welder/pipe-fitter with GMAW/SMAW

COMPTON, KATHLEEN: Director of Clinical Education for Respiratory Therapy; A.A.S., Jefferson Community College; B.S., Kent State; M.S., Youngstown State Unversity.

DOOLIN, JEREMY: Associate Professor of Computer Information Technology; B.S., Ohio University; B.A., Ohio University; M.S., Southern New Hampshire University.

EMMERTH, MARYBETH: Program Director of Respiratory Therapy; B.S., Wheeling University (formerly Wheeling College); M.S., University of Pittsburgh

FERRELL, DARCEY: Professor of Psychology/Sociology/Human Services; Licensed Social Worker; B.A., Glenville State College; MSW, West Virginia University.

FREEMAN, MICHAEL: Program Director/Instructor of EMS with Economic & Workforce Development; A.A.S., Monore Community College; B.S., Franklin University.

GARRAN, MEGAN: Instructor for Nursing; B.S.N., Capital University; Additional Studies, West Virginia University.

GOMEZ, DANIEL: Assistant Professor of Mathematics; B. A., State University of New York at Buffalo; M.S., University of Pittsburgh; M.S. Texas A&M University.

GUZEK, LYNDSIE: Program Director/Assistant Professor for Business; B.B.A., Marshall University; M.B.A., West Liberty University.

HARBERT CRYSTAL L: Program Director of Associate of Arts/Assistant Professor of English; B.A., M.A., Kent State University.

HAYS, DAVID: Assistant Professor of Nursing; Diploma, Trinity Health System School of Nursing, R.N.; B.S.N., Wheeling Jesuit University, M.S.N., Wheeling Jesuit University.

HIPPENSTEEL, CURTIS: Program Director of Energy Technology and Applied Technology/Instructional Specialist for Energy Technology; B.B.A., M.B.A., University of Central Arkansas. Certifications/Competencies: OSHA 503 (WVU), Instructor Certificate (IADC), Production Technician/Pumper (HPTC), Oil/Gas Drilling (HPTC), Compressor Mechanics (ARIEL), Basic Product Training (ARIEL), LMS Certifications (IWCF), Basic Instrumentation (EH), Supervisory Level Well Control (SJCSE).

KAHL, MISTY: Program Director/Professor of Radiography; Assistant Professor, Radiography; A.A.S., West Virginia Northern Community College; B.S., Florida Hospital College of Health Sciences; M.S., Independence University/California College for Health & Sciences; R.T.(R), Wheeling Hospital Radiology Program.

KALB, HEATHER: Associate Professor of Biology; B.A., Wittenberg University; Ph.D., Texas A&M University.

KEFAUVER, CHRISTIAN: Program Director of Culinary Arts and Hospitality/Professor for Culinary Arts; A.A.S., West Virginia Northern Community College; B.S., Wheeling College (formerly Wheeling Jesuit College); M.A., West Virginia University; C.E.C, F.M.P.

KERNS, PATRICK: Instructor for Heating, Air Conditioning and Refrigeration Technology (HVACR); A.A.S., West Virginia Northern Community College.

KEYSER, JILL L.: Program Director/Professor of Nursing; Professor, Nursing; Diploma, Ohio Valley General Hospital School of Nursing; B.S.N., Ohio University; M.S., Wright State University; Additional Study: West Virginia University, Muskingum University.

KILLEEN, BRANDY: Program Director/Assistant Professor for Welding; A.A.S., West Virginia Northern Community College; Certified Welding Inspector, American Welding Society.

KLEEH, DEBORAH**:** Program Director/Assistant Professor for Health Information Technology; A.A.S., West Virginia Northern Community College, A.A., West Virginia Northern Community College; B.A., Wheeling College (formerly Wheeling Jesuit University).

KRIECHBAUM, JENNIFER: Associate Professor, Mathematics; A.S. and B.S., Ohio University; M.S. Muskingum University.

LABRIOLA, JOHN: Program Director/Assistant Professor for Heating, Air Conditioning and Refrigeration Technology (HVACR); B.S., M.Ed., Liberty University.

LANTZ, JENNIFER: Associate Professor,of Mathematics; B.S., West Liberty State College; Additional Study: Wheeling Jesuit University, Kellogg Institute, Appalachian State University. Further Study: West Virginia University.

LANTZ, JOHN**:** Division Chair of Liberal Arts & Public Service; Program Director/Associate Professor for Criminal Justice; B.S., West Liberty University; M.S., Marshall University; Further Study: West Virginia University and American Public University.

LAWSON, MICHAEL**:** Instructional Specialist for Electro-Mechanical Technology; A.A.S., West Virginia Northern Community College.

LEGHLID, SAID**:** Associate Professor of Communications; M.A., Bloomsburg University.

MCDANIEL, ANTHONY: Instructor for EMS; N.R.P, FP-C; A.A.S. West Virginia University at Parkersburg.

MODRA, JOHN: Division Chair of Allied Health; Instructor for Nursing; B.S.N. West Liberty University.

MORELLI, FAITH: Assistant Professor of Nursing; B.S.N., M.S.N., Waynesburg University.

MULYUK, RUSTEM M.: Assistant Professor of Mathematics; M.S.; Ph.D., Kazan Federal University.

NAPIER, HEIDI**:** Program Director for Human/Social Services, Assistant Professor for Criminal Justice; B.A., M.L.S., West Virginia University.

NEWHART, BRIANNA: Program Director for Substance Abuse Intervention; Instructor for Human Services; M. Ed., Cleveland State University.

NEWHART, MACLAINE: Program Director/Assistant Professor of Education; M.Ed., Salem University.

NICHOLS, JESSICA: Program Director for Electro-Mechanical Technology; A.A.S., West Virginia Northern Community College.

OMELCHENKO-COMER, NATALIA: Division Chair of Business and Science, Technology, Engineering and Mathematics (STEM); Program Director for Associate of Science; Associate Professor for Biology; B.S., M.S., St. Petersburg State University; Ph.D., Institute of Experimental Medicine, Russian Federation.

PITCHER, TAMI: Program Director/ Associate Professor for Surgical Technology; A.A.S., West Virginia Northern Community College; B.L.A., West Liberty University; Certified Surgical Technologist (CST).

RADVESKI, ANGELICA: Assistant Professor of Nursing; B.S.N., Chamberlain University.

REHO, JOHN W.: Professor of English; B.S., California (Pa.) State College; M.A., University of Akron; Further Study: Kent State University, West Liberty University.

RIGGS-SUSLOVIC, DARCY: Instructor for Culinary Arts; A.S.T., International Culinary Academy of Pittsburgh; Certified Executive Chef, American Culinary Federation.

RYAN, DELILAH: Professor of History; B.A., West Liberty University; M.A. (2), West Virginia University; Further Study: West Virginia University.

RYAN, HEIDI: Associate Professor for Computer Information Technology; B.A., Robert Morris University; M.B.A., University of Maryland University College.

SHELDON, PARNELL: Instructor for Biology; B.A., B.S., Denison University; M.S., Miamai University.

SOLE, BRENDA: Program Director/Instructor for Patient Care Technology; A.A.S., West Virginia Northern Community College.

SPIGELMYER, PAMELA: Instructor for Nursing; B.S.N, Bloomburg University of Pennsyvania; M.S.N., Ph.D., The Pennsylvania State University.

STEPHENS, MELISSA: Instructor/Clinical Coordinator for Radiography; B.A., Wheeling Jesuit University; R.T. (R), American Registry of Radiologic Technologists; C.A.S., Wheeling Hospital Radiography Program. Additional Study: Belmont Technical College.

TIMKO, MELISSA: Program Director/Assistant Professor for Medical Assisting; A.A.S., Eastern Gateway Community College.

TUGALI, VIKRAM: Division Chair of Applied Technology, Program Director/Associate Professor for Computer Information Technology; M.S. (2), Marshall University

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YABS, JAN M.: Instructor for Business, B.A., Franciscan University of Steubenville; M.B.A., University of Findlay; M.L.S., University of Pittsburgh School of Law; Certified Financial Planner (CFP).

Guided Self Placement

Use these links to help you to determine your readiness for college-level English and Math courses:

English Self Placement

Math Self Placement

Guided Self Placement

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Math

Before you enroll in an entry-level math course, you should consult the corresponding guide below. Each guide addresses common questions about the course and provides a set of sample exercises typical to the course. You will be able to select the best enrollment option for yourself by reading the questions and working through the exercises.

Math Self Placement Guides:

MATH 101

MATH 109

MATH 110

MATH 113

MATH 115

MATH 116

MATH 204

MATH 205

MATH 210

Guided Self Placement

Placement Score Table

Effective Fall 2023

Updated: August 21st, 2023

ENGLISH 097 SCORES				
ACT	**SAT**	**TABE**	**High School Grades/GPA**	**High School Equivalency Scores (HiSET/TASC/GED)**

	(MARCH 2016 & Later)			
Reading 16 or Below AND English 17 or Below	Reading 22 or Below ERW 459 or Below	Reading 535 or Below	No Scores Needed	No Scores Needed
ENGLISH 101 + 101S or ENG 115 + 115S				
ACT	**SAT** **(MARCH 2016 & Later)**	**TABE**	**High School Grades/GPA**	**High School Equivalency Scores** **(HiSET/TASC/GED)**
Reading 17 or Above AND English 17 or Below	ERW 460 – 479 OR Reading 23 or Above	Reading 536 or Above AND Language 546 or Below	*A*s or *B*s in all high school English courses AND 2.5 cumulative GPA	**HiSET** Reading 15 or Above AND Language Arts 14 or Below **TASC** Reading 580 or Above AND Writing 559 or Below **GED 5th Series** N/A
ENGLISH 101 or ENG 115				
ACT	**SAT** **(MARCH 2016 & Later)**	**TABE**	**High School Grades/GPA**	**High School Equivalency Scores** **(HiSET/TASC/GED)**
English 18 or Above	ERW 480 or Above OR Essay 13 or Above	Language 547 or Above	*A*s or *B*s in all high school English courses AND 3.0 cumulative GPA	**HiSET** Reading 15 or Above AND Language Arts 15 or Above **TASC** Reading 580 or Above AND Writing 560 or Above **GED 5th Series** Language Arts 165 or Above

MATH 101, 109, 113, 115, 116, 204, or 205		
	Math + Supplement	**Math without Supplement**
ACT	18 or BELOW	19 OR ABOVE
SAT	509 or Below	510 or Above

(MARCH 2016 & Later)		
TABE	536 or Below	537 or Above
High School Grades/GPA	*A*s or *B*s in all high school English AND Math courses AND 2.5 cumulative GPA	*A*s or *B*s in all high school English AND Math courses AND 3.0 cumulative GPA
High School Equivalency Scores **(HiSET/TASC/GED)**	**HiSET** Math 14 or Below **TASC** Math 559 or Below **GED 5th Series** Math 164 or Below	**HiSET** Math 15 or Above **TASC** Math 560 or Above **GED 5th Series** Math 165 or Above

Math 110 or 210		
	Math 210	**Math 110**
ACT Math	20 or Above	21 or Above
SAT **(MARCH 2016 & Later)**	520 or Above	530 or Above
TABE	557 or Above	577 or Above
High School Grades/GPA	*A*s or *B*s in all high school English courses, *A*s in all high school Math courses, AND 2.5 cumulative GPA	*A*s or *B*s in all high school English courses, *A*s in all high school Math courses, AND 3.0 cumulative GPA
High School Equivalency Scores **(HiSET/TASC/GED)**	**HiSET** Math 15 or Above **TASC** Math 560 or Above **GED 5th Series** Math 165 or Above	**HiSET** Math 15 or Above **TASC** Math 560 or Above **GED 5th Series** Math 165 or Above

Placement Testing

WV Northern offers placement testing as one of multiple measures for placement in English and math courses. Newly-admitted students will work with an advisor to determine the most appropriate measure of placement. If a student opts into placement testing, the advisor will connect the student with our testing center to make the appropriate arrangements. The advisor can also help with alternate testing arrangements for students with documented physical or learning disabilities. Isolated testing, having a test read to the student or physical adaptations are examples of modified arrangements.

If you have questions, please contact wvnccadmissions@wvncc.edu.

Staff

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |Q | R | S | T | U | V | W | X | Y | Z |

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