## **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 entrance 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 online 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.

# **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** Invest in recruiting, onboarding, training, and employee development, crosstraining succession planning, and employee satisfaction.
- Invest in technology to increase student success Invest in technology in key areas such as access, recruitment and admission, advising, instruction, increasing student digital literacy, and improving student engagement.
- Implement an advising model that supports and improves student success Implement an advising
  model that addresses individual student needs, provides clear career pathways, and is adaptable to Early
  Entrance and nontraditional students.
- 4. **Expand and improve workforce and economic development in our region and beyond** Expand and improve workforce education programs to prepare students for a regional and global labor market.
- 5. **Expand student diversity** Enroll a more diverse mix of students.

# 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 2024**

Registration Begins (1 p.m.)	(T)	Apr. 16					
Full Semester Classes Begin	(M)	Aug. 26					
Holiday (Labor Day)	(S-M)	Aug. 31 - Sept. 2					
Mid-term	(W)	Oct. 9					
(Mid-term grades for full-term courses are posted on Northern on the Web)							
Last Day to drop/Withdrawal from College	(F)	Nov. 22					
Holiday (Thanksgiving) Break	(W-U)	Nov. 27 - Dec 1					
Classes End	(F)	Dec. 13					
Grades Due	(M)	Dec. 16 (10 AM)					
Winter Break (College Closed)	(M-W)	Dec 23-Jan 1					
Spring 2025							
Registration Begins (1 p.m.)	(T)	Nov. 12, 2024					
Full Semester Classes Begin	(M)	Jan. 13					

(M)	Jan. 20					
(W)	Mar. 5					
(Mid-term grades for full-term courses are posted on Northern on the Web)						
(U-U)	Mar. 16 - 23					
(F)	Apr. 18					
(F)	May 9					
(M)	May 12					
(R)	May 15					
	(W) sees are posted of (U-U) (F) (F) (M)					

# **Summer 2025**

Registration Begins (1 p.m.)

Holiday (Memorial Day)	(M)		May 26	
Full Semester Classes Begin	(T)		May 27	
Holiday (Independence Day Observed)	(F)		July 4	
Second Half of Semester Begins	(M)		July 7	
Last Day to drop/withdrawal from College	(F)		Aug. 8	
Classes End	(F)		Aug. 15	
U - Sunday M - Monday T - Tuesday	W - Wednesday	R - Thursday	F - Friday	S - Saturday

(T)

Nov. 12, 2024

# **Accreditations**

# **College Accreditation Agency**

**Higher Learning Commission** 

West Virginia Northern Community College is accredited by the Higher Learning Commission (HLC) through 2022-23.

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

180 Center Place Way St. Augustine, FL 32095 Phone: 800-624-9458 www.acfchefs.org

#### **American Health Information Management Association**

233 North Michigan Avenue, Suite 2150

Chicago, IL 60601-5519 Phone: 312-233-1100 www.ahima.org

## American Medical Technologist (AMT)

10700 West Higgins Rd, Suite 150 Rosemont, IL 60018 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: 727-210-2350 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

#### 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

### The Council for Adult and Experiential Learning (CAEL)

10 W. Market Street Suite 1100 Indianapolis, IN 46204 www.cael.org

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, Learning Resource Center, Academic Support 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, Learning Resource Center, Academic Support 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, Learning 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/Learning Resource Centers**

Each campus of West Virginia Northern Community College has a separate Library/Learning Resource Center (LRC). 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 LRCs is provided through the online catalog, Library Books and More @ Northern. To access the catalog, or many of the other electronic resources and databases, please go to the LRC 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 LRC has a number of computers, including PCs and iMacs, available to students for research, class assignments, word processing, and Internet searching. Individual and group

instruction for research or any of the LRC resources is available at each campus from the LRC staff. They have the expertise to help you with your research and information needs.

# **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 LRC has computers for student use and numerous student state-of-the-art computer labs that are available on each of the campuses. The Wheeling campus LRC includes a MakerSpace area. 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:

- EDGE (Earn a Degree Graduate Early) a partnership with the public school districts where students in selected technical education courses can receive credit at community colleges.
- 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 entrance 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 entrance/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 entrance students must submit permission of high school officials and parents through a special early entrance 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 entrance 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

## **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; complete a separate Allied Healthh 1+1, 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. Selection of applicants is a continuous process. Early application is highly recommended. For more information contact the Division of Allied Health 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 Records 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 Office. The Records 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 Records 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.

# **Catalog Home**

2024-2025 College Catalog

NOTE: Programs still under development will be noted in catalog. Please check regularly for updates.

## **Catalog Icon Guide**

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

# **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 Entrance (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 at www.wvncc.edu.

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**

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 and by contacting the instructor. Course information for distance education courses is available through the College's Web page at www.wvncc.edu/programs/online-courses--distance-education/153. Courses designated as "hybrid" require some class meetings on campus. WVNCC online and hybrid courses are delivered through Brightspace.

**IP Video and classes** noted on academic schedules are those that utilize the College's closed video telecommunications system, therefore increasing the offering of courses for participation of students from two or three campuses with the instructor located at any campus. Students can see and talk with each other and the instructor, during the classes. Instructors and students utilize the College's integrated telephone system, mail system, and e-mail to supplement communications.

Other alternate methods for course participation are sometimes, but not always, possible to assist students. Such methods may include audio and/or videotaping, limited independent study, and use of electronic methodologies. 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. 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. Payment for test out classes cannot be made with financial aid or Veterans' funds.

## **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 Records Office at West Virginia Northern.

Examination results will be validated by the Records Office. The Records 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 and Proficiency Examination Program

West Virginia Northern Community College will award credit for the College Level Examination Program (CLEP) and the Proficiency Examination Program (PEP) 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 and PEP Subject Examinations 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 and PEP 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 and PEP examinations may be considered elective credit. Students will not receive CLEP and PEP 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 or PEP examinations. Students must be enrolled at West Virginia Northern in order to receive credit from West Virginia Northern. Students who have taken CLEP or PEP examinations prior to enrollment must submit an official CLEP or PEP transcript. Questions should be directed to the Records Officer.

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

The PEP exam(s) may be taken through the ACT Proficiency Examination Program, Iowa City, Iowa 52240.

Grade reports must be mailed directly to the Records Office at West Virginia Northern Community College. The examination results will be validated by the Records Officer and students notified of the credit earned.

# 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 PLA (Prior Learning Assessment) form or for further information.

## **EDGE: 'Earn A Degree Graduate Early'**

EDGE is a West Virginia community college initiative that recognizes specific West Virginia high school classes as "free" community college credit. These high school classes are usually in the career-technical track and can be applied to a certificate or an associate degree. To be eligible to receive the EDGE credit, a high school student must pass an EDGE eligible high school course with a final overall grade of an A, B, or C. Additionally, students have to complete at least one college course through West Virginia Northern and pass this course with an A, B, or C. These may include College 101, Early Entrance classes, online classes, or any classes as a general or transient student. The student must then complete an EDGE Transcript Request form that can be found at

www.wvncc.edu/docs/2j\_EDGETranscriptRequest2018.pdf or by contacting Northern's Student Service Center and requesting to speak with the Registrar's Office.

# **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 Provost 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.

Adding classes during the first week of a class is possible and does not require the instructor's approval providing that the class is not at capacity. Students register through their NOW accounts.

**Late Registration** occurs during the first week of classes. After the first week of classes registration can only occur with approval of the faculty member and Vice President of Learning.

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 Provost 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 available 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 may be implemented by the instructor when, in the opinion of the instructor, a student fails to attend class regularly and/or fails to complete educational assignments. 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.

## **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 petition 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 2+2 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.

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

## **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 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## **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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

#### MATH 109 - Mathematics of Business and Finance

#### 3 Credit(s)

This course is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 240 - Business Law I

## 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

**Pre/Corequisite(s):** ENG 101

## 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.

## 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.

## **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

## **BA 241 - Business Law II**

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

Pre/Corequisite(s): BA 240.

## Total Credits (60)

**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 microprocessors. 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):** Must have equivalent math placement.

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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising

in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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):** Must have equivilant math placement.

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 PLA credit 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.
  - o Employ mathematical and science reasoning skills.
  - Acquire a cultural, artistic, and global perspective.
  - O 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)
- 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 - Music Appreciation**

#### 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.

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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

## **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, congressional presidential 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:
  - o Communicate effectively in oral and written formats.
  - Employ or utilize information access and literacy skills.
  - O 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, congressional presidential 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.
  - O Demonstrate problem-solving and critical thinking skills.
  - Employ mathematical and science reasoning skills.
  - Acquire a cultural, artistic, and global perspective.
  - O 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, congressional presidential 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.
  - O 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, congressional presidential 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

This program is designed for students who expect to complete a degree at a four- year institution in such areas as biology, engineering, mathematics or the physical sciences. Students should consult with their advisor regarding requirements of WVNCC and the institution to which they plan to transfer.

In addition, graduates will be able to:

- Apply basic principles of biological and physical sciences and mathematics.
- Apply the scientific method in designing, conducting and analyzing experiments.
- Communicate effectively and work collaboratively.
- Use mathematical and scientific principles in problem solving.
- Relate issues from a global perspective.
- Conduct basic research using the Internet and print resources.

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**

\*\*THIS PROGRAM IS UNDER CONSTRUCTION. CHECK BACK FOR UPDATES!\*\*

Major Code: 274

This program is designed for those who expect to transfer to a college or university to study in biology. The curriculum gives students a broad background in liberal arts with a concentration in biology and physical sciences.

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

- 1. Apply the scientific method in designing, conducting and analyzing experiments.
- 2. Interpret and apply information from credible scientific sources.
- 3. Explain basic principles of biology, including the core concepts of structure and function, genetics, reproduction, and evolution.
- 4. Integrate and apply knowledge across scientific disciplines.

- 5. Demonstrate basic lab skills in biology and the physical sciences. Training in biology provides a foundation a wide range of fields including:
  - Health Sciences
  - Dentistry
  - Veterinary medicine
  - Ecology
  - Organismal biology
  - Environmental science
  - Education

CIP Code: 240199

First Year

Second Year

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**

# **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. Students who choose to earn credit for college-level learning acquired through professional work experience or other life experiences must complete the portfolio development course and submit a portfolio. 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 Dean of Academic Affairs.

**Graduation Grade Point Average: 2.0** 

**Residency Requirement:** 12 credit hours from a regionally accredited higher education institution. A minimum of 12 credits required at the host institution. Petition for exception to the residency requirement may be made to the Chief Academic Officer of 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 two years after graduation from high school. In case of those passing a high school equivalency examination, admission must be two years 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.

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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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.

 $\textbf{Pre/Corequisite}(\textbf{s})\textbf{:} \ Satisfactory \ reading \ and \ writing \ placement \ or \ ENG \ 101, \ or \ ENG \ 115 \ .$ 

## 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.

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

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

- 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

Graduates of this program can expect to obtain employment in positions such as supervisors, accounts adjustor, operations manager, assistant managers, and customer service representatives.

Graduates can expect to be employed in government agencies, health care facilities, industrial and manufacturing plants, human resource departments, and entrepreneurs. According to the U.S. Labor Department, jobs in the business area rank in the top 10 for the next millennium.

Students who are planning to transfer to a four-year institution to obtain a bachelor's degree in Business Administration should take one of the following: the Business Administration Transfer Option, A.S. degree, the Business Administration 2+2 to WLU, A.S. degree, or the Business Administration, Pre-Business Studies 2+2 to WVU, A.A.S. degree. Students should contact an advisor from the transfer institution as soon as possible regarding transferability of specific courses.

#### **Additional University Transfer Options:**

- Completion of this program offers students the option of transferring to the following college to complete a four-year degree:
  - o Robert Morris University
  - o Franscican University of Steubenville
  - West Virginia State University
  - o West Liberty University

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.

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

#### **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.

 $\label{eq:precond} \textbf{Pre/Corequisite(s):} \ \ \textbf{Satisfactory reading and writing placement or ENG 097 or ENG 101} \ .$ 

## **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the

law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

**Pre/Corequisite(s):** ENG 101

# 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 241 - Business Law II

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

Pre/Corequisite(s): BA 240.

# **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

# 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.

# Business Office, Business Career Studies, C.A.S.

Major Code: 156

Students selecting the Business Office option will be given training in word processing, transcription, spreadsheet applications, and office procedures which are essential in providing the administrative support in today's office environment.

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

- Create business documents using word processing software.
- Produce mailable documents from dictated materials.
- Create business documents using spreadsheet and database software.
- Integrate electronic office/business skills with decision-making skills.
- Compose various types of business correspondence applying appropriate writing techniques, accurate spelling, correct punctuation, and proper grammar.

 Demonstrate a knowledge of records management principles and filing procedures in maintaining business documents.

Occupations available for students completing program requirements include the following: general office clerk, office support clerk, transcriptionist, word processor, file clerk, receptionist, and information clerk.

Graduates may expect to obtain entry-level employment in insurance firms, banks, law offices, medical offices, and industrial offices.

Students completing the competencies in the following courses should be prepared to pursue Microsoft Office Specialist (MOS) certification in the following area:

• Microsoft Word I - Microsoft Certified Application Specialist: Microsoft Office Word.

Microsoft Office Specialist (MOS) certification is possible in this program area. Employment possibilities are much higher with certification in specific software applications.

CIP Code: 520401

# 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.

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

Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 109.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

**Pre/Corequisite(s):** ENG 101

or

# 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.

#### 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.

# **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

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

# 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.

#### BA 241 - Business Law II

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

Pre/Corequisite(s): BA 240.

or

# 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.

#### 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.

# Total Credits (30)

**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.
  - O Demonstrate critical thinking and problem-solving skills.
  - $\circ \quad \text{Employ or utilize information access and literacy skills.}$
  - O Acquire a cultural, artistic and global perspective.
  - O 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.

 $\textbf{Pre/Corequisite(s):} \ Satisfactory \ reading \ and \ writing \ placement \ or \ ENG \ 097, \ ENG \ 101, \ or \ ENG \ 115 \ .$ 

#### 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, congressional presidential 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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

• 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

# Computer Information Systems Specialization, Business Administration 2+2 to WLU, A.A.S.

# **Transfer to West Liberty University**

Major Code: 127

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 two (Associate) or four (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 Applied Science degree from West Virginia Northern. Upon completing the additional credit hours required at West Liberty University, they will receive a Bachelor of Science Degree in Business Administration with a specialization in Computer Information Systems.

Students successfully completing and receiving an A.A.S. degree under the 2+2 agreement with WLU should 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

Students are encouraged to meet with members of the faculty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

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.

CIP Code: 110103

# First Year

# Fall Semester (15 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.

# 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 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.

# **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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)

#### 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.

## **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.

# 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.

or

# **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.

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

# 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.

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

Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 109.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

# **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.

# 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.

# 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.

# 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.

- ENG English Literature Core Requirement 3 Credit(s) \*\*\*\*
- HUM Humanities 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.

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

# Total Credits (63)

- \* Choose from: PSYC 105, SOC 125, OR HIST CORE
- \*\* Choose from: GSC 100, CHEM 108, PHYS 104
- \*\*\* Choose from: ART 150 OR MUS 105
- \*\*\*\* Choose from: ENG 200, ENG 201, ENG 210, ENG 211

**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.

# 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 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.

#### 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 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.

• MATH - Mathematics Core Requirement 3 Credit(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 2+2 to UC, A.A.S.

# **Transfer to University of Charleston**

#### Major Code: 359

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. Explain fundamental security concepts in networking, hardware, and software.
- 2. Troubleshoot network security and abnormal networking behaviors.
- 3. Apply problem-solving and critical thinking skills to manage security techniques and methodologies.

- 4. Explain major concepts and theories used in Cloud computing and architecture.
- 5. Apply ethical practices to cyber-security threats and vulnerabilities.

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.

**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 transitional 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 course requirements in 4 years.

The term 2+2 articulation agreements contain very specific requirements that 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 are encouraged to contact a member of the Cyber Security faculty at the University of Charleston early in their program of study at WVNCC to obtain information and counseling concerning their Cyber Security transfer program. However, to be eligible to transfer, students must have a 60-hour Associate's degree in Cyber Security with a minimum GPA of 2.0, in order to transfer into the University of Charleston's Cyber Security program.

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 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

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.

## **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.

## 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 (18 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.

## 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 245 - Information Security Fundamentals**

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.

## **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 - Fundamentals of Hacking/IT Psychology and Security

## 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 184 and CIT 220

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

## **CIT 142 - Networking Fundamentals**

#### 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.

Prerequisite(s): CIT 105 and CIT 184

## 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 241 - Microsoft Server Administration

#### 3 Credit(s)

This course is deigned to introduce students with windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by handson exercises. It also introduces them to active directory, setting up user groups, rights, printer sharing and other items related to organizational and security issues.

Prerequisite(s): 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 274.

# Spring Semester (12 Credits)

## **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 265 - Virtualization Concepts**

## 3 Credit(s)

This course is designed to introduce students to machine virtualization with hands-on exercises built to encourage students to install virtual machines and setup test labs for windows or Linux server/client deployments. This course will cover types of hypervisors used to install virtual machines with emphasis on Windows server configuration and deployment.

#### Prerequisite(s): CIT 241.

CIT - Restricted Elective 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.

# Total Credits (60)

\*Choose from CIT 107, CIT 112, CIT 205

**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. Explain fundamental security concepts in networking, hardware, and software.
- 2. Troubleshoot network security and abnormal networking behaviors.
- 3. Apply problem-solving and critical thinking skills to manage security techniques and methodologies.
- 4. Explain major concepts and theories used in Cloud computing and architecture.
- 5. Apply ethical practices to cyber-security threats and vulnerabilities.
- 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.

## **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.

## **SPCH 105 - Fundamentals of Speech Communication**

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.

#### 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 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.

## MATH 109 - Mathematics of Business and Finance

#### 3 Credit(s)

This course is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation, and bonds.

**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 - Fundamentals of Hacking/IT Psychology and Security

#### 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 184 and CIT 220

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

## CIT 142 - Networking Fundamentals

## 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.

Prerequisite(s): CIT 105 and CIT 184

## 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 241 - Microsoft Server Administration

#### 3 Credit(s)

This course is deigned to introduce students with windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by handson exercises. It also introduces them to active directory, setting up user groups, rights, printer sharing and other items related to organizational and security issues.

Prerequisite(s): 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 274.

# Spring Semester (15 Credits)

## **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 265 - Virtualization Concepts**

#### 3 Credit(s)

This course is designed to introduce students to machine virtualization with hands-on exercises built to encourage students to install virtual machines and setup test labs for windows or Linux server/client deployments. This course will cover types of hypervisors used to install virtual machines with emphasis on Windows server configuration and deployment.

**Prerequisite(s):** CIT 241.

## 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 - Restricted Elective 3 Credit(s) \*

## **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)

\*Choose from CIT 107, CIT 112, CIT 187 or CIT 232.

**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:

- Demonstrate the ability to use various types of software programs efficiently and effectively to fulfill business objectives.
- Successfully troubleshoot applications and software.
- Assist in the design, delivery and improvement of in-house software applications.
- Demonstrate the ability to install, diagnose, repair, maintain and upgrade PC hardware.
- Demonstrate the ability to support an organization in the delivery of training to end users in the organization.

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 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.

## **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)

## 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 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 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 160 - PowerPoint/Microsoft Publisher

#### 3 Credit(s)

This course prepares students to create visually appealing business/computer presentations using MS PowerPoint, and introduces MS Publisher as a tool to help small business users create and distribute professional business communication and marketing materials. Topics covered include creating, formatting, and designing PPT presentations, and creating marketing materials for print, web, and e-mail messages using enhanced formatting tools, and other new and improved features.

## **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.

#### **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.

## Second Year

## Fall Semester (18 Credits)

## 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 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

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 274.

- SS SS Core Requirement 3 Credit(s)
- Restricted Elective 3 Credit(s) \*\*

## Spring Semester (12 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.

#### 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

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

# Total Credits (60)

\*\* Select from BA 240, MGT 253 or any CIT course other than CIT 117

**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 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 160 - PowerPoint/Microsoft Publisher

## 3 Credit(s)

This course prepares students to create visually appealing business/computer presentations using MS PowerPoint, and introduces MS Publisher as a tool to help small business users create and distribute professional business communication and marketing materials. Topics covered include creating, formatting, and designing PPT presentations, and creating marketing materials for print, web, and e-mail messages using enhanced formatting tools, and other new and improved features.

## **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.

## 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 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 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 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.

• MATH - Mathematics Core Requirement 3 Credit(s)

## **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 (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:
  - o 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.

## **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)

## 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 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 112 or permission of the instructor.

## CIT 215 - Client Side Scripting/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.

# **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 (15 Credits)

## **CIT 205 - Web Development Tools**

#### 3 Credit(s)

In this course, students gain practical experience with the software as they work to develop web applications that integrate web page development tools with various tools.

**Prerequisite(s):** CIT 187 or permission from the instructor.

## 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 112 and CIT 176 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 274.

## CIT 253 - Web Application Programming

#### 3 Credit(s)

This course focuses on the development of a database-driven web site such as those used for e-business sites. Server side programming languages, database query languages and other web based tools are used to produce an interactive website that is supported by a relational database and secured by input validation and other best practices.

Prerequisite(s): CIT 187 and CIT 176 or permission of instructor.

Restricted Elective 3 Credit(s) \*

# Spring Semester (15 Credits)

## 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 227 - Applied Programming**

#### 3 Credit(s)

This course will expose students to how programming and software engineering techniques are applied in a variety of practical, real world challenges. Students will develop programs that interact with sensors, simple circuits and control robotics, as well as learn the fundamentals of video game programming through the development of simple graphical games. Students will also learn the challenges of mobile applications development as well as develop a basic mobile application.

**Prerequisite(s):** CIT 232 or permission of the instructor and CIT 272 or permission of the instructor. **Corequisite(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

• MATH - Math Core Requirement 3 Credit(s)

## **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)

\* Chose 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 2+2 to WLU, A.A.S.

#### Transfer to West Liberty University

Major Code: 237

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at WVNCC and may finish 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.

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 oncampus experience or a completely online experience.

In addition to General Education Outcomes, graduates will be able to:

- Read substantive and procedural case law with an understanding of how they impact law enforcement, juvenile justice and the correctional systems.
- Develop computer skills in the areas of Internet investigation, research and electronic messaging.
- Have familiarity with the inner workings of agencies on the local, state and federal levels that compromise our nation's criminal justice systems.
- Have an understanding of basic law enforcement investigative techniques, crime scene preservation and analysis.
- Have an understanding of the principles of homeland security, international threats, and terrorism.
- Have an understanding of due process and how the court system is desinged to operate in relation to the United States Constitution and its ammendments as it relates to the criminal justice system.
- Understand the rights of the accused from arrest to post conviction appeals and how law enforcement, court
  and correctional personnel function to balance individual rights and the need to protect society, convict the
  guilty and humanely punish as well as rehabilitate the offender.

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.

Students completing this program will receive an A.A.S. degree from West Virginia Northern. The program is also designed for students preparing for transfer to West Liberty University to complete a bachelor's degree in Criminal Justice.

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.

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.

## **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

• 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.

#### **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 - Problems in Criminal Justice

#### 3 Credit(s)

This course examines the research, writing and discussion of selected subject areas including present day problems in law enforcement, the courts and corrections.

Prerequisite(s): CRJ 104.

## 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

## 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.

 $\textbf{Pre/Corequisite(s):} \ \ \textbf{Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115} \ .$ 

## 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, congressional presidential 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)

\* Minimum grade of "C" required.

## Choose from: CRJ 110, CRJ 115, CRJ 205, CRJ 206, CRJ 209, CRJ 230, CRJ 246

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

# 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 oncampus 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:

Franciscan University of Steubenville

Ohio University

Robert Morris University

Salem University

West Liberty University

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

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.

## **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

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.

## 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 - Problems in Criminal Justice**

#### 3 Credit(s)

This course examines the research, writing and discussion of selected subject areas including present day problems in law enforcement, the courts and corrections.

Prerequisite(s): CRJ 104.

## 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.

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## **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**

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, congressional presidential 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**

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 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

#### **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.

- SCI Science Core Requirement 3(4) Credit(s) \*\*\*
- Restricted Elective 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:
  - O Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - O 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 <u>early in their program of study</u> 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 - Music Appreciation**

#### 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.

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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

# 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, congressional presidential 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:
  - o Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - O 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 - Music Appreciation**

#### 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.

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:
  - o Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - Employ or utilize information access and literacy skills.
  - O Acquire a cultural, artistic and global perspective.

O 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 <u>early in their program of study</u> 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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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.

# **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - O Acquire a cultural, artistic and global perspective.
  - O 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 <u>early in their program of study</u> 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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

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.

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# **MUS 105 - Music Appreciation**

#### 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.

**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): Satisfactory reading and writing placement or ENG 097.

**Pre/Corequisite(s):** ENG 101 and satisfactory math placement or any college level math.

#### 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.

 $\textbf{Pre/Corequisite(s):} \ \textbf{Satisfactory reading and writing placement or ENG 097 or ENG 101, or ENG 115} \ .$ 

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#### 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):** Satisfactory reading and writing placement or ENG 097.

**Pre/Corequisite(s):** ENG 101 and satisfactory math placement or any college level math.

## **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.

\*\*FINANCIAL AID ELIGIBILITY PENDING FOR THIS PROGAM\*\*

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**

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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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): Must have equivilant math placement.

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

## Second Year

## Fall Semester (16 Credits)

• Restricted Core Elective\* 3 Credit(s)

#### 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 course: 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" <u>OR</u> 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**

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.

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## **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 (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.

\*\*FINANCIAL AID ELIGIBILITY PENDING FOR THIS PROGRAM\*\*

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

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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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**

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):** Must have equivilant math placement.

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.

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## **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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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.

## **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

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## 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

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 or MATH 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**

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**

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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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 (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. program is designed as a 1+1 program. Students will enroll in the Medical Billing and Coding, C.A.S. program for the first year following which they qualify to apply for selective admission to the H.I.T. program for the second year. This design provides students the opportunity to attain progressive credentials. The curriculum provides a solid background in various aspects of health records management, collection and dissemination of health data, revenue and reimbursement procedures, fraud and abuse, confidentiality and privacy, medical coding, informational governance, and statistical outcomes.

Upon completion of the program graduates should be able to:

- Demonstrate knowledge of data content, structure and information governance.
- Demonstrate knowledge of the legal process related to the access, use, disclosure, privacy and security of health care documentation.
- Demonstrate ability to utilize and analyze patient data.
- 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.

The graduates of the program will be eligible to take the credentialing examination to become credentialed as a Registered Health Information Technician (RHIT). The graduate of this program will qualify for employment opportunities in a variety of positions including medical coders/health information technologists, consultants, data analysts, disease registrars, and EHR specialists. Employment can be found in acute care healthcare facilities, government agencies, medical offices, clinics, nursing homes, home health agencies, and education.

Employment of Health Information Technicians is expected to increase by 11 percent through 2028 - faster than the average for all occupations. Health Information Technicians are a critical component of the health care team.

The Health Information Technology, A.A.S. program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing boards 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 Health Information Technology Program Director.

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.

**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.

## 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 (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.

### 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

## 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):** Admission to the Health Information Technology program, A.A.S. program.

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.

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.

Pre/Corequisite(s): MATH 210, HIT 100, HIT 145, and HIT 235

## HIT 235 - Intermediate Medical Coding

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.

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

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.

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

### **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 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.

• SCI - Science Core Requirement 3(4) Credit(s)

## Second Year

## Fall Semester (16 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 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) ##

## 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 commercial 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**

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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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): Must have equivilant math placement.

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 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 addressed. 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 of a "C" grade is required in all courses to remain in the program and graduate.

**IMPORTANT PRE-REQUISTE REQUIREMENT INFORMATION:**BIO 114, BIO 115, ENG 101, AHS 103 and ORNT 090 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.

**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.

#### 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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

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.

Students applying to the Clinical Medical Assistant program, must have successfully completed the Medical Assisting: Administrative Medical Assistant Certificate program.

Students selected for admission to 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" as required in AAMA/CAAHEP accreditation standards. 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:

- Graduates will be prepared as entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains through the administrative, clinical and general competencies as required by MAERB and taught by qualified faculty.
- Graduates will be prepared as multi-skilled medical assistants qualified to provide administrative services and clinical patient care while displaying professionalism during their interactions with the college community and practicum opportunities.
- Graduates will be prepared to complete required competencies and national certifications to become Certified Medical Assistants.
- Graduates will demonstrate general education outcomes specific to the program while displaying general
  abilities in communication, critical thinking, and problem solving as utilized in the medical assisting
  profession.

Occupations available for students completing program requirements include Certified 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 Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 9355 - 113th St. N. #7709, Seminole, FL 33775, Phone: 727-210-2350, Fax: 727-210-2354 www.caahep.org. Graduates of this program can test for the Clinical Medical Assistant credential from the American Association of Assistants (CMA/AAMA).

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

#### Wage and Employment Trends:

- Annual Range Regionally \$22,000 to \$26,000 (Onet, 2017)
- Projected job growth nationally 262,100 (Onet, 2017)
- Certification Options: Clinical Medical Assistant (CMA) through American Association of Medical Assistants (AAMA) 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.

**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.

#### 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 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.

### 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): Admission to the program.

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): Admission to the program.

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):** Admission to Clinical Medical Assisting, AAS Program.

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.

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## 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.

**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.

## 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.

\*Second Semester and Second Year courses are still awaiting curriculum approval\*

Major Code: 248

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 Society of Clinical Pathologists (ASCP) Board of Certification national certifying examination. Those passing the examination and certified as medical laboratory technicians (MLT-ASCP).

#### **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. Recognize 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.

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.

## **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)

## **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.

## **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

## 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.

Prerequisite(s): MLAB 131 ,MLAB 132 , MLAB 133 Corequisite(s): MLAB 140 & MLAB 145

## **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 131, MLAB 132 MLAB 133, & MLAB 135

Corequisite(s): MLAB 145

## 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.

Prerequisite(s): MLAB 131, MLAB 132, MLAB 133

Corequisite(s): MLAB 135 &MLAB 140

## 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 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

## 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.

## **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

# 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 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.

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.
  - 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

## First Year

## Fall Semester (17 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.

**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):** Admission to nursing program. **Corequisite(s):** NURS 134, NURS 133.

Pre/Corequisite(s): BIO 114.

## **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):** Admission to nursing program.

Corequisite(s): NURS 134, NURS 132 Pre/Corequisite(s): BIO 114 and PSYC 105

## **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): Admission to nursing program. Corequisite(s): NURS 132, NURS 133. Pre/Corequisite(s): BIO 114, PSYC 105.

## 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)

## **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.

## **NURS 112 - Clinical Applications in Nursing Practice**

#### 3 Credit(s)

This course is designed to focus on clinical applications used by the nurse at the patient bedside. By facilitating the analysis of assessment data, selection of appropriate nursing diagnoses, patient-centered outcomes, and how medications affect the patient's outcomes, by using the correct medical terminology to develop a patient-centered nursing concept care map plan of care.

Prerequisite(s): Admission to Nursing Program, Licensed Registered Nurse, or Licensed Practical Nurse and BIO

114, NURS 132, NURS 133, NURS 134, and PSYC 105.

Corequisite(s): NURS 142 and NURS 144

Pre/Corequisite(s): BIO 115

## 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, NURS 132, NURS 133, NURS 134.

Corequisite(s): NURS 144 Pre/Corequisite(s): BIO 115.

## 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 wellnessillness 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): NURS 134. Corequisite(s): NURS 142 Pre/Corequisite(s): BIO 115.

## Second 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.

• Humanities Core Requirement 3 Credit(s)

## 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): NURS 144;

**Pre/Corequisite(s):** ENG 101, Humanities Core Requirement.

## Spring Semester (12 Credits)

## **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.

## **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.

# 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 skilled patient care professional to perform basic medical services, help those who are ill or injured, and assist individuals who need help with daily activities. 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. Students will complete an extensive preceptor externship in a health care facility under the indirect supervision of faculty. The Program has an advisory board of health care professionals that guide's curriculum so the students learn the latest skills health care companies expect of graduates.

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

- Be eligible to graduate with a Certificate of Applied Science (CAS) in Patient Care Technician.
- Be eligible to sit for Patient Care Technician certification through the National Healthcareer Association (NHA).
- Be eligible to sit for separate Home Care Worker Exam.
- Be Basic Life Support (BLS) certified (provided within the course).
- Be eligible to obtain employment at a Health Care Facility or transfer/matriculate to an Associate or Bachelor Degree Program in Health Care.

Job Titles: Patient Care Technician (PCT), Direct Care Worker, Phlebotomist, EKG Technician

### Wage and Employment Trends:

- \$25,710 Annual (2015)
- 1,492,000 Employees (2014)
- Much Faster than Average Projected Growth (14% or higher between 2017-2024)
- National Certification Options: Patient Care Technician, Phlebotomist, EKG Technician

CIP Code: 513902

# Fall Semester (15 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.

## 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.

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.

## PCT 101 - Patient Care Technician I

#### 5 Credit(s)

This course is designed to prepare students for the Nursing Assistant-Direct Care Worker 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 nursing practice. Emphasis is on the personal qualities, knowledge, and skills needed by the nurse assistant 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, campus laboratory and supervised clinical experiences in a long term care facility and preceptor experience in the patient home setting. 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. Upon successful completion of the program the student is eligible to take the Direct Care Worker written and skill evaluation exam. This exam will be taken the last week of the course.

Pre/Corequisite(s): BIO 114 with a minimum grade of a C.

Restricted Electives 3 Credit(s) \*

# Spring Semester (14/16 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 - Math Core Requirement 3(4) 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.

Pre/Corequisite(s): BIO 114 with a minimum grade of a "C".

• Electives 2(4) Credit(s) \*\*\*

# Total Credits (30)

\*Restricted Electives: SPCH 101, SPCH 105, CIT 117, PSYC 105

\*\*Math Core Requirement: MATH 108, MATH 115

\*\*\*Electives: Math core and electives must total at least 6 credit hours.

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

# 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.
- 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.
- 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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## **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.

## **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.

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## **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **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.

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## **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

• 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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - Demonstrate critical thinking and problem-solving skills.
  - o 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## **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, congressional presidential 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.

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

- Demonstrate the competency level & patient care skills & knowledge of an entry-level technologist.
- Display abilities in communication, critical thinking, & problem-solving skills necessary for professional practice.
- Understand the significance of professional values & life-long learning experiences.
- Be an entry-level functioning technologist in the health care 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 \$32,000 (Onet, 2017)
- 8% Projected growth (Onet, 2017)
- 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.

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

Pre/Corequisite(s): ENG 101 or ENG 115

• MATH - Math Core Requirement 3 Credit(s)

## **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, MATH Core Requirement.

## 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, MATH Core Requirement.

## 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, MATH Core Requirement.

### **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, MATH Core Requirement.

## 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): MATH Core Requirement, BIO 114.

## 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.

## **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 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, MATH Core Requirement, RAD 100, RAD 105, RAD 110, RAD 120, RAD 115. **Corequisite(s):** RAD 155 I, RAD 160, RAD 170, RAD 165.

Pre/Corequisite(s): BIO 115, ENG 101.

## 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.

Prerequisite(s): BIO 114, MATH Core Requirement; RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.

Corequisite(s): RAD 125, RAD 160, RAD 165 and RAD 170.

**Pre/Corequisite(s):** BIO 115, ENG 101.

## RAD 160 - Radiation Protection/Radiobiology II

#### 2 Credit(s)

As a continuation 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, MATH Core Requirement, 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, ENG 101.

#### 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, MATH Core Requirement, 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, ENG 101.

## **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, MATH Core Requirement, 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, ENG 101.

## 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, ENG 101, RAD 155, RAD 160, RAD 170, RAD 165.

## 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.

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

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):** Must have equivalent math placement.

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):** Must have equivilant math placement.

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 microprocesors. 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.

Of

#### **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.

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## 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

# 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 selfemployed 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.

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

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

### 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 additional 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement 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.

## **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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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.

#### **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, congressional presidential 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.

\*\*THIS PROGRAM IS UNDER CONSTRUCTION. PLEASE CHECK BACK FOR UPDATES!\*\*

# 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 <u>and</u> 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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## **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, congressional presidential 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.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize access and literacy skills.
  - O Acquire a cultural, artistic, and global perspective.
  - O 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 (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.

### **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, congressional presidential 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.

### 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 (15 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 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 - Music Appreciation**

#### 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.

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, congressional presidential 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

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### 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 transfer 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: 395S

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.

### **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
- Provide safe care to the surgical patient
- Operate surgical equipment properly
- Assist surgeon with procedures related to the specialty
- Demonstrate problem-solving and critical thinking skills during surgical procedures.

Successfully complete the national certification examination for Surgical Technologists.

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 (12 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.

## 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.

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

Pre/Corequisite(s): ENG 101 or ENG 115

## ST 105 - Surgical Technology I

#### 4 Credit(s)

This course is designed to introduce students to the surgical environment, the history of surgery and the legal, ethical, moral and psychological responsibilities of the surgical technologist. Emphasis is placed on the principles of asepsis, safety and the importance of teamwork. Common surgical and diagnostic procedures are introduced. Students must register for a lecture and laboratory/clinical section for this semester.

Corequisite(s): ST 115.

Pre/Corequisite(s): AHS 103, BIO 114;

## ST 115 - Clinical Practice I

### 4 Credit(s)

This course provides campus laboratory practice of basic surgical skills, asepsis and sterile technique.

Corequisite(s): ST 105

Pre/Corequisite(s): AHS 103, BIO 114

## Spring Semester (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.

### **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 125 - Anesthesia/Pharmacology for the Surgical Technologist

#### 3 Credit(s)

This course is designed to focus on the medication process in the field of the Surgical Technologist and drug handling. The class will emphasize medications used in the surgical field which includes selection of the correct drug, measurement and mixing, distribution and dispensing, administration, and assessment of the patient and documentation.

Corequisite(s): ST 150, ST 155.

### ST 150 - Surgical Technology II

#### 4 Credit(s)

This course builds on the knowledge and skills acquired in ST 105. Emphasis is placed on orthopedic, plastic and reconstructive, genitourinary and vascular surgical skills. Emphasis continues to be placed on the principles of asepsis and their

Prerequisite(s): ST 105, ST 115.

Corequisite(s): ST 155.

Pre/Corequisite(s): BIO 115,

### ST 155 - Clinical Practice II

### 4 Credit(s)

This course is a continuation of Clinical Practice I. Students build on their knowledge and expertise and are introduced to more surgical specialties in the Operating Room.

Prerequisite(s): ST 115, ST 105;

Corequisite(s): ST 150.

## Summer Semester (4 Credits)

## ST 180 - Clinical Experience

#### 4 Credit(s)

This course is a continuation of clinical practice II. Students build on their knowledge and expertise and are introduced to more surgical specialties in the Operating Room.

Prerequisite(s): ST 150, ST 155

## Second Year

## Fall Semester (14 Credits)

MATH core requirement 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.

### ST 200 - Surgical Technology III

#### 4 Credit(s)

This course is a continuation of ST 150. Students build on their knowledge and expertise and are introduced to more complex surgeries in the Operating Room.

Prerequisite(s): ST 150, ST 155.

Corequisite(s): ST 210.

### ST 210 - Clinical Practice III

#### 4 Credit(s)

This course is a continuation of Clinical Practice II. Students build on their knowledge and expertise and are introduced to more surgical specialties and take a more advanced role in the Operating Room.

Prerequisite(s): ST 155, ST 150.

Corequisite(s): ST 200.

## Spring Semester (13 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.

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## **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 is a continuation of ST 200. Students build on their knowledge of advanced surgical procedures, trauma and emergency surgeries.

Prerequisite(s): ST 200, ST 210. Corequisite(s): ST 255, ST 260.

### ST 255 - Clinical Practice IV

#### 4 Credit(s)

This course is a continuation of Clinical Practice III. Students build on their knowledge and expertise they have acquired throughout this program.

Prerequisite(s): ST 200, ST 210.

Corequisite(s): ST 250.

### ST 260 - Surgical Technology Seminar

#### 2 Credit(s)

This course is designed for advanced surgical technology students in the professional role of the Surgical Technologist in the Operating Room with special emphasis placed on preparation for the National Certification Examination.

Corequisite(s): ST 250, ST 255.

# 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 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:

- 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.
- 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 101 - Oxyacetylene Welding

#### 1 Credit(s)

This course presents basic principles of oxyacetylene cutting and welding. The course will focus on proper selection and use of equipment, safety, proper cutting and welding techniques, along with setup.

### 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.

## 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.

OI

### **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.

O1

### **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

# Welding: Oil & Gas Pipe

## **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.

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## **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 .

#### 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 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 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 five-week course is a continuation of WELD 102. Students become proficient at groove welding with and without backing.

Prerequisite(s): WELD 102. 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.
  - o Employ or utilize information access in literacy skills.
  - Demonstrate problem-solving and critical thinking skills.
  - Employ mathematical and science reasoning skills.
  - O 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 - Music Appreciation**

#### 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.

**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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

# **POLS 102 - American National Government and Politics**

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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - o Employ or utilize information access and literacy skills.
  - O Demonstrate problem-solving and critical thinking skills.
  - o Employ mathematical and science reasoning skills.
  - Acquire a cultural, artistic, and global perspective.
  - O 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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - Employ or utilize information access and literacy skills.
  - O Demonstrate problem-solving and critical thinking skills.
  - o 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**

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, congressional presidential 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

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:
  - O 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.
  - O Acquire a cultural, artistic, and global perspective.
  - O 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**

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, congressional presidential 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

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

This program is designed for students who expect to complete a degree at a four- year institution in such areas as biology, engineering, mathematics or the physical sciences. Students should consult with their advisor regarding requirements of WVNCC and the institution to which they plan to transfer.

In addition, graduates will be able to:

- Apply basic principles of biological and physical sciences and mathematics.
- Apply the scientific method in designing, conducting and analyzing experiments.
- Communicate effectively and work collaboratively.
- Use mathematical and scientific principles in problem solving.
- Relate issues from a global perspective.
- Conduct basic research using the Internet and print resources.

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**

\*\*THIS PROGRAM IS UNDER CONSTRUCTION. CHECK BACK FOR UPDATES!\*\*

Major Code: 274

This program is designed for those who expect to transfer to a college or university to study in biology. The curriculum gives students a broad background in liberal arts with a concentration in biology and physical sciences.

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

- 1. Apply the scientific method in designing, conducting and analyzing experiments.
- 2. Interpret and apply information from credible scientific sources.

- 3. Explain basic principles of biology, including the core concepts of structure and function, genetics, reproduction, and evolution.
- 4. Integrate and apply knowledge across scientific disciplines.
- 5. Demonstrate basic lab skills in biology and the physical sciences.

Training in biology provides a foundation a wide range of fields including:

- Health Sciences
- Dentistry
- Veterinary medicine
- Ecology
- Organismal biology
- Environmental science
- Education

CIP Code: 240199

First Year

Second Year

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**

**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.

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

#### **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 120 - Microsoft Word I

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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

## **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

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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

#### MATH 109 - Mathematics of Business and Finance

#### 3 Credit(s)

This course is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

# **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.

Of

# 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.

# ACC 225 - Intermediate Accounting II

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

### BA 241 - Business Law II

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

**Pre/Corequisite(s):** BA 240.

# Total Credits (60)

**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 PLA credit 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**

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. Students who choose to earn credit for college-level learning acquired through professional work experience or other life experiences must complete the portfolio development course and submit a portfolio. 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 Dean of Academic Affairs.

**Graduation Grade Point Average: 2.0** 

**Residency Requirement:** 12 credit hours from a regionally accredited higher education institution. A minimum of 12 credits required at the host institution. Petition for exception to the residency requirement may be made to the Chief Academic Officer of 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 two years after graduation from high school. In case of those passing a high school equivalency examination, admission must be two years 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.

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

Graduates of this program can expect to obtain employment in positions such as supervisors, accounts adjustor, operations manager, assistant managers, and customer service representatives.

Graduates can expect to be employed in government agencies, health care facilities, industrial and manufacturing plants, human resource departments, and entrepreneurs. According to the U.S. Labor Department, jobs in the business area rank in the top 10 for the next millennium.

Students who are planning to transfer to a four-year institution to obtain a bachelor's degree in Business Administration should take one of the following: the Business Administration Transfer Option, A.S. degree, the Business Administration 2+2 to WLU, A.S. degree, or the Business Administration, Pre-Business Studies 2+2 to WVU, A.A.S. degree. Students should contact an advisor from the transfer institution as soon as possible regarding transferability of specific courses.

### **Additional University Transfer Options:**

- Completion of this program offers students the option of transferring to the following college to complete a four-year degree:
  - o Robert Morris University
  - o Franscican University of Steubenville
  - West Virginia State University
  - West Liberty University

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.

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

Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 109.

#### **BA 100 - Introduction to Business**

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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

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.

## MATH 109 - Mathematics of Business and Finance

#### 3 Credit(s)

This course is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation, and bonds.

**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.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

# **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 241 - Business Law II

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

Pre/Corequisite(s): BA 240.

# **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

## 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.

# 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. Explain fundamental security concepts in networking, hardware, and software.
- 2. Troubleshoot network security and abnormal networking behaviors.
- 3. Apply problem-solving and critical thinking skills to manage security techniques and methodologies.
- 4. Explain major concepts and theories used in Cloud computing and architecture.
- 5. Apply ethical practices to cyber-security threats and vulnerabilities.
- 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:
  - o 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.

## **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.

## **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.

#### 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 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.

# MATH 109 - Mathematics of Business and Finance

#### 3 Credit(s)

This course is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation, and bonds.

**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 - Fundamentals of Hacking/IT Psychology and Security

# 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 184 and CIT 220

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

### CIT 142 - Networking Fundamentals

#### 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.

Prerequisite(s): CIT 105 and CIT 184

# 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 241 - Microsoft Server Administration

#### 3 Credit(s)

This course is deigned to introduce students with windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by handson exercises. It also introduces them to active directory, setting up user groups, rights, printer sharing and other items related to organizational and security issues.

Prerequisite(s): 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 274.

Spring Semester (15 Credits)

# **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 265 - Virtualization Concepts**

#### 3 Credit(s)

This course is designed to introduce students to machine virtualization with hands-on exercises built to encourage students to install virtual machines and setup test labs for windows or Linux server/client deployments. This course will cover types of hypervisors used to install virtual machines with emphasis on Windows server configuration and deployment.

Prerequisite(s): CIT 241.

# 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 - Restricted Elective 3 Credit(s) \*

#### **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)

\*Choose from CIT 107, CIT 112, CIT 187 or CIT 232.

**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:

- Demonstrate the ability to use various types of software programs efficiently and effectively to fulfill business objectives.
- Successfully troubleshoot applications and software.
- Assist in the design, delivery and improvement of in-house software applications.
- Demonstrate the ability to install, diagnose, repair, maintain and upgrade PC hardware.
- Demonstrate the ability to support an organization in the delivery of training to end users in the organization.

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 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.

# **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)

# **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.

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# 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 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 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 160 - PowerPoint/Microsoft Publisher

#### 3 Credit(s)

This course prepares students to create visually appealing business/computer presentations using MS PowerPoint, and introduces MS Publisher as a tool to help small business users create and distribute professional business communication and marketing materials. Topics covered include creating, formatting, and designing PPT presentations,

and creating marketing materials for print, web, and e-mail messages using enhanced formatting tools, and other new and improved features.

# **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.

#### **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.

# Second Year

# Fall Semester (18 Credits)

# 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 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.

# 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 274.

- SS SS Core Requirement 3 Credit(s)
- Restricted Elective 3 Credit(s) \*\*

# Spring Semester (12 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.

#### 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

# 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 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:
  - o 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.

# **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)

### 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 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 112 or permission of the instructor.

# CIT 215 - Client Side Scripting/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.

# **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 (15 Credits)

# **CIT 205 - Web Development Tools**

#### 3 Credit(s)

In this course, students gain practical experience with the software as they work to develop web applications that integrate web page development tools with various tools.

**Prerequisite(s):** CIT 187 or permission from the instructor.

# 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 112 and CIT 176 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 274.

# CIT 253 - Web Application Programming

#### 3 Credit(s)

This course focuses on the development of a database-driven web site such as those used for e-business sites. Server side programming languages, database query languages and other web based tools are used to produce an interactive website that is supported by a relational database and secured by input validation and other best practices.

**Prerequisite(s):** CIT 187 and CIT 176 or permission of instructor.

• Restricted Elective 3 Credit(s) \*

# Spring Semester (15 Credits)

# 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 227 - Applied Programming

#### 3 Credit(s)

This course will expose students to how programming and software engineering techniques are applied in a variety of practical, real world challenges. Students will develop programs that interact with sensors, simple circuits and control robotics, as well as learn the fundamentals of video game programming through the development of simple graphical games. Students will also learn the challenges of mobile applications development as well as develop a basic mobile application.

**Prerequisite(s):** CIT 232 or permission of the instructor and CIT 272 or permission of the instructor. **Corequisite(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

• MATH - Math Core Requirement 3 Credit(s)

# **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)

\* Chose 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 oncampus 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:

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.

# **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

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 - Problems in Criminal Justice

#### 3 Credit(s)

This course examines the research, writing and discussion of selected subject areas including present day problems in law enforcement, the courts and corrections.

Prerequisite(s): CRJ 104.

# 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, congressional presidential 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 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

#### **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.

- SCI Science Core Requirement 3(4) Credit(s) \*\*\*
- Restricted Elective 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.

• Elective - 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

# 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.

OI

# **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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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.

OI

# **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 course: 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 or MATH 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. program is designed as a 1+1 program. Students will enroll in the Medical Billing and Coding, C.A.S. program for the first year following which they qualify to apply for selective admission to the H.I.T. program for the second year. This design provides students the opportunity to attain progressive credentials. The curriculum provides a solid background in various aspects of health records management, collection and dissemination of health data, revenue and reimbursement procedures, fraud and abuse, confidentiality and privacy, medical coding, informational governance, and statistical outcomes.

Upon completion of the program graduates should be able to:

- Demonstrate knowledge of data content, structure and information governance.
- Demonstrate knowledge of the legal process related to the access, use, disclosure, privacy and security of health care documentation.
- Demonstrate ability to utilize and analyze patient data.
- 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.

The graduates of the program will be eligible to take the credentialing examination to become credentialed as a Registered Health Information Technician (RHIT). The graduate of this program will qualify for employment opportunities in a variety of positions including medical coders/health information technologists, consultants, data analysts, disease registrars, and EHR specialists. Employment can be found in acute care healthcare facilities, government agencies, medical offices, clinics, nursing homes, home health agencies, and education.

Employment of Health Information Technicians is expected to increase by 11 percent through 2028 - faster than the average for all occupations. Health Information Technicians are a critical component of the health care team.

The Health Information Technology, A.A.S. program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

If you have ever been convicted of a felony or misdemeanor for any reason, State or National credentialing boards, licensing boards 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 Health Information Technology Program Director.

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.

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.

### 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 (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.

### 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

### 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):** Admission to the Health Information Technology program, A.A.S. program.

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.

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.

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.

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.

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### 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 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.

#### **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.

• SCI - Science Core Requirement 3(4) Credit(s)

### Second Year

### Fall Semester (16 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 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."

#### 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) ##

# 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

# Medical Assisting, Clinical Medical Assistant, A.A.S.

Major Code: 161

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.

Students applying to the Clinical Medical Assistant program, must have successfully completed the Medical Assisting: Administrative Medical Assistant Certificate program.

Students selected for admission to 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" as required in AAMA/CAAHEP accreditation standards. 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:

- Graduates will be prepared as entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains through the administrative, clinical and general competencies as required by MAERB and taught by qualified faculty.
- Graduates will be prepared as multi-skilled medical assistants qualified to provide administrative services and clinical patient care while displaying professionalism during their interactions with the college community and practicum opportunities.
- Graduates will be prepared to complete required competencies and national certifications to become Certified Medical Assistants.
- Graduates will demonstrate general education outcomes specific to the program while displaying general
  abilities in communication, critical thinking, and problem solving as utilized in the medical assisting
  profession.

Occupations available for students completing program requirements include Certified 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 Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs,

9355 - 113th St. N. #7709, Seminole, FL 33775, Phone: 727-210-2350, Fax: 727-210-

2354 www.caahep.org. Graduates of this program can test for the Clinical Medical Assistant credential from the American Association of Assistants (CMA/AAMA).

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

### Wage and Employment Trends:

- Annual Range Regionally \$22,000 to \$26,000 (Onet, 2017)
- Projected job growth nationally 262,100 (Onet, 2017)
- Certification Options: Clinical Medical Assistant (CMA) through American Association of Medical Assistants (AAMA) 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.

**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.

#### 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation, and bonds.

**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 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.

### 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): Admission to the program.
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): Admission to the program.
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):** Admission to Clinical Medical Assisting, AAS Program. **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.

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### **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.

\*Second Semester and Second Year courses are still awaiting curriculum approval\*

Major Code: 248

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 Society of Clinical Pathologists (ASCP) Board of Certification national certifying examination. Those passing the examination and certified as medical laboratory technicians (MLT-ASCP).

#### **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. Recognize 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.

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.

### **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)

### **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.

### 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

### 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.

Prerequisite(s): MLAB 131 ,MLAB 132 , MLAB 133 Corequisite(s): MLAB 140 & MLAB 145

### 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 131, MLAB 132 MLAB 133, & MLAB 135

Corequisite(s): MLAB 145

### 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.

Prerequisite(s): MLAB 131, MLAB 132, MLAB 133

Corequisite(s): MLAB 135 &MLAB 140

### 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 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

### **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.

### **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

# 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 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.

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

### First Year

## Fall Semester (17 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.

**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):** Admission to nursing program.

Corequisite(s): NURS 134, NURS 133.

Pre/Corequisite(s): BIO 114.

### **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): Admission to nursing program. Corequisite(s): NURS 134, NURS 132 Pre/Corequisite(s): BIO 114 and PSYC 105

### **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): Admission to nursing program. Corequisite(s): NURS 132, NURS 133. Pre/Corequisite(s): BIO 114, PSYC 105.

### **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)

### **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.

### **NURS 112 - Clinical Applications in Nursing Practice**

#### 3 Credit(s)

This course is designed to focus on clinical applications used by the nurse at the patient bedside. By facilitating the analysis of assessment data, selection of appropriate nursing diagnoses, patient-centered outcomes, and how

medications affect the patient's outcomes, by using the correct medical terminology to develop a patient-centered nursing concept care map plan of care.

Prerequisite(s): Admission to Nursing Program, Licensed Registered Nurse, or Licensed Practical Nurse and BIO

114 , NURS 132 , NURS 133 , NURS 134 , and PSYC 105 .

Corequisite(s): NURS 142 and NURS 144

Pre/Corequisite(s): BIO 115

### 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, NURS 132, NURS 133, NURS 134.

Corequisite(s): NURS 144 Pre/Corequisite(s): BIO 115.

### 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 wellnessillness 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): NURS 134. Corequisite(s): NURS 142 Pre/Corequisite(s): BIO 115.

### Second 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.

• Humanities Core Requirement 3 Credit(s)

### 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): NURS 144;

Pre/Corequisite(s): ENG 101, Humanities Core Requirement.

### Spring Semester (12 Credits)

## **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.

### 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.

# 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.

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

- Demonstrate the competency level & patient care skills & knowledge of an entry-level technologist.
- Display abilities in communication, critical thinking, & problem-solving skills necessary for professional practice.
- Understand the significance of professional values & life-long learning experiences.
- Be an entry-level functioning technologist in the health care 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 \$32,000 (Onet, 2017)
- 8% Projected growth (Onet, 2017)
- 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.

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

Pre/Corequisite(s): ENG 101 or ENG 115

• MATH - Math Core Requirement 3 Credit(s)

### **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, MATH Core Requirement.

### 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, MATH Core Requirement.

#### 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, MATH Core Requirement.

### **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, MATH Core Requirement.

### **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): MATH Core Requirement, BIO 114.

### 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.

### **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 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, MATH Core Requirement, RAD 100, RAD 105, RAD 110, RAD 120, RAD 115. **Corequisite(s):** RAD 155 I, RAD 160, RAD 170, RAD 165.

Pre/Corequisite(s): BIO 115, ENG 101.

#### 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.

Prerequisite(s): BIO 114, MATH Core Requirement; RAD 100, RAD 105, RAD 110, RAD 115 and RAD 120.

**Corequisite(s):** RAD 125, RAD 160, RAD 165 and RAD 170.

Pre/Corequisite(s): BIO 115, ENG 101.

### RAD 160 - Radiation Protection/Radiobiology II

#### 2 Credit(s)

As a continuation 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, MATH Core Requirement, 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, ENG 101.

#### 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, MATH Core Requirement, 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, ENG 101.

### **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, MATH Core Requirement, 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, ENG 101.

# 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, ENG 101, RAD 155, RAD 160, RAD 170, RAD 165.

### 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.

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

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):** Must have equivalent math placement.

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): Must have equivilant math placement.

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 microprocesors. 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

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

# 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:
  - O West Liberty University, BS, Social Work
  - O 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**

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.

# **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**

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

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# 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 transfer 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
- Provide safe care to the surgical patient
- Operate surgical equipment properly
- Assist surgeon with procedures related to the specialty
- Demonstrate problem-solving and critical thinking skills during surgical procedures.
- Successfully complete the national certification examination for Surgical Technologists.

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 (12 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.

# **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.

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

**Pre/Corequisite(s):** ENG 101 or ENG 115

# ST 105 - Surgical Technology I

#### 4 Credit(s)

This course is designed to introduce students to the surgical environment, the history of surgery and the legal, ethical, moral and psychological responsibilities of the surgical technologist. Emphasis is placed on the principles of asepsis, safety and the importance of teamwork. Common surgical and diagnostic procedures are introduced. Students must register for a lecture and laboratory/clinical section for this semester.

Corequisite(s): ST 115.

Pre/Corequisite(s): AHS 103, BIO 114;

#### ST 115 - Clinical Practice I

#### 4 Credit(s)

This course provides campus laboratory practice of basic surgical skills, asepsis and sterile technique.

Corequisite(s): ST 105

Pre/Corequisite(s): AHS 103, BIO 114

# Spring Semester (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.

# **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 125 - Anesthesia/Pharmacology for the Surgical Technologist

#### 3 Credit(s)

This course is designed to focus on the medication process in the field of the Surgical Technologist and drug handling. The class will emphasize medications used in the surgical field which includes selection of the correct drug, measurement and mixing, distribution and dispensing, administration, and assessment of the patient and documentation.

Corequisite(s): ST 150, ST 155.

# ST 150 - Surgical Technology II

#### 4 Credit(s)

This course builds on the knowledge and skills acquired in ST 105. Emphasis is placed on orthopedic, plastic and reconstructive, genitourinary and vascular surgical skills. Emphasis continues to be placed on the principles of asepsis

and their

Prerequisite(s): ST 105, ST 115. Corequisite(s): ST 155.

Pre/Corequisite(s): BIO 115,

#### ST 155 - Clinical Practice II

#### 4 Credit(s)

This course is a continuation of Clinical Practice I. Students build on their knowledge and expertise and are introduced to more surgical specialties in the Operating Room.

Prerequisite(s): ST 115, ST 105;

Corequisite(s): ST 150.

# Summer Semester (4 Credits)

# ST 180 - Clinical Experience

#### 4 Credit(s)

This course is a continuation of clinical practice II. Students build on their knowledge and expertise and are introduced to more surgical specialties in the Operating Room.

Prerequisite(s): ST 150, ST 155

# Second Year

# Fall Semester (14 Credits)

• MATH core requirement 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.

# ST 200 - Surgical Technology III

#### 4 Credit(s)

This course is a continuation of ST 150. Students build on their knowledge and expertise and are introduced to more complex surgeries in the Operating Room.

Prerequisite(s): ST 150, ST 155.

Corequisite(s): ST 210.

## ST 210 - Clinical Practice III

#### 4 Credit(s)

This course is a continuation of Clinical Practice II. Students build on their knowledge and expertise and are introduced to more surgical specialties and take a more advanced role in the Operating Room.

Prerequisite(s): ST 155, ST 150. Corequisite(s): ST 200.

# Spring Semester (13 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 is a continuation of ST 200. Students build on their knowledge of advanced surgical procedures, trauma and emergency surgeries.

Prerequisite(s): ST 200, ST 210. Corequisite(s): ST 255, ST 260.

# ST 255 - Clinical Practice IV

#### 4 Credit(s)

This course is a continuation of Clinical Practice III. Students build on their knowledge and expertise they have acquired throughout this program.

Prerequisite(s): ST 200, ST 210. Corequisite(s): ST 250.

# ST 260 - Surgical Technology Seminar

This course is designed for advanced surgical technology students in the professional role of the Surgical Technologist in the Operating Room with special emphasis placed on preparation for the National Certification Examination.

Corequisite(s): ST 250, ST 255.

# 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 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:

- 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.
- 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**

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 101 - Oxyacetylene Welding

#### 1 Credit(s)

This course presents basic principles of oxyacetylene cutting and welding. The course will focus on proper selection and use of equipment, safety, proper cutting and welding techniques, along with setup.

# 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.

# 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.

OI

## **MATH 113 - Technical Mathematics**

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

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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

# **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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.

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

**Pre/Corequisite(s):** ENG 101 and satisfactory math placement or MATH 109.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

- 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.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - O Acquire a cultural, artistic and global perspective.
  - O 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

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, congressional presidential 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

• 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

# Computer Information Systems Specialization, Business Administration 2+2 to WLU, A.A.S.

# Transfer to West Liberty University

Major Code: 127

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 two (Associate) or four (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 Applied Science degree from West Virginia Northern. Upon completing the additional credit hours required at West Liberty University, they will receive a Bachelor of Science Degree in Business Administration with a specialization in Computer Information Systems.

Students successfully completing and receiving an A.A.S. degree under the 2+2 agreement with WLU should 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

Students are encouraged to meet with members of the faculty at WLU early in their program of study at WVNCC to obtain information and advising concerning the program.

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.

CIP Code: 110103

# First Year

# Fall Semester (15 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.

# **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 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.

## **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):** Satisfactory reading and writing placement or ENG 097.

**Pre/Corequisite(s):** ENG 101 and satisfactory math placement or any college level math.

## SPCH 105 - Fundamentals of Speech Communication

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)

#### 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.

# **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.

#### 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.

or

## 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.

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

## 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.

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

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

# **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.

# **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.

# SS 255 - The Global Community

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.

## 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.

- ENG English Literature Core Requirement 3 Credit(s) \*\*\*\*
- HUM Humanities 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.

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

# Total Credits (63)

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* Choose from: PSYC 105, SOC 125, OR HIST CORE
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\*\* Choose from: GSC 100, CHEM 108, PHYS 104

\*\*\* Choose from: ART 150 OR MUS 105

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

**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 2+2 to UC, A.A.S.

# **Transfer to University of Charleston**

Major Code: 359

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. Explain fundamental security concepts in networking, hardware, and software.
- 2. Troubleshoot network security and abnormal networking behaviors.
- 3. Apply problem-solving and critical thinking skills to manage security techniques and methodologies.
- 4. Explain major concepts and theories used in Cloud computing and architecture.
- 5. Apply ethical practices to cyber-security threats and vulnerabilities.

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.

**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 transitional 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 course requirements in 4 years.

The term 2+2 articulation agreements contain very specific requirements that 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 are encouraged to contact a member of the Cyber Security faculty at the University of Charleston early in their program of study at WVNCC to obtain information and counseling concerning their Cyber Security transfer program. However, to be eligible to transfer, students must have a 60-hour Associate's degree in Cyber Security with a minimum GPA of 2.0, in order to transfer into the University of Charleston's Cyber Security program.

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 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.

## **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.

#### 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 (18 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.

#### 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 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.

## **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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 - Fundamentals of Hacking/IT Psychology and Security

## 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 184 and CIT 220

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

## **CIT 142 - Networking Fundamentals**

#### 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.

Prerequisite(s): CIT 105 and CIT 184

## 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 241 - Microsoft Server Administration**

## 3 Credit(s)

This course is deigned to introduce students with windows server administration challenges using virtual machines. Students will gain experience in installing and configuring network and storage services on windows servers by handson exercises. It also introduces them to active directory, setting up user groups, rights, printer sharing and other items related to organizational and security issues.

Prerequisite(s): 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 274.

Spring Semester (12 Credits)

## **CIT 255 - Cybersecurity Network Defense**

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 265 - Virtualization Concepts**

#### 3 Credit(s)

This course is designed to introduce students to machine virtualization with hands-on exercises built to encourage students to install virtual machines and setup test labs for windows or Linux server/client deployments. This course will cover types of hypervisors used to install virtual machines with emphasis on Windows server configuration and deployment.

#### **Prerequisite(s):** CIT 241.

• CIT - Restricted Elective 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.

# Total Credits (60)

\*Choose from CIT 107, CIT 112, CIT 205

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

# Criminal Justice 2+2 to WLU, A.A.S.

## Transfer to West Liberty University

Major Code: 237

Note: The "2+2" term is used to refer to a transfer agreement through which a student completes an Associate degree at WVNCC and may finish 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.

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 oncampus experience or a completely online experience.

In addition to General Education Outcomes, graduates will be able to:

- Read substantive and procedural case law with an understanding of how they impact law enforcement, juvenile justice and the correctional systems.
- Develop computer skills in the areas of Internet investigation, research and electronic messaging.
- Have familiarity with the inner workings of agencies on the local, state and federal levels that compromise our nation's criminal justice systems.
- Have an understanding of basic law enforcement investigative techniques, crime scene preservation and analysis.
- Have an understanding of the principles of homeland security, international threats, and terrorism.
- Have an understanding of due process and how the court system is desinged to operate in relation to the United States Constitution and its ammendments as it relates to the criminal justice system.
- Understand the rights of the accused from arrest to post conviction appeals and how law enforcement, court
  and correctional personnel function to balance individual rights and the need to protect society, convict the
  guilty and humanely punish as well as rehabilitate the offender.

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.

Students completing this program will receive an A.A.S. degree from West Virginia Northern. The program is also designed for students preparing for transfer to West Liberty University to complete a bachelor's degree in Criminal Justice.

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.

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**

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.

## **PSYC 105 - Introduction to Psychology**

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

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.

## **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**

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 - Problems in Criminal Justice

#### 3 Credit(s)

This course examines the research, writing and discussion of selected subject areas including present day problems in law enforcement, the courts and corrections.

Prerequisite(s): CRJ 104.

## MATH 210 - Introduction to Statistics

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.

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## 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.

## **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, congressional presidential 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)

\* Minimum grade of "C" required.

\*\* MATH 210 is recommended for WLU

## Choose from: CRJ 110, CRJ 115, CRJ 205, CRJ 206, CRJ 209, CRJ 230, CRJ 246

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

# **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:
  - O Communicate effectively in oral and written formats.
  - Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - O 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 <u>early in their program of study</u> 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

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

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 - Music Appreciation**

#### 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.

**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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

## 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, congressional presidential 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.
  - o Employ or utilize information access and literacy skills.
  - O 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 - Music Appreciation**

#### 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.

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**

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:
  - O 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 <u>early in their program of study</u> 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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

## **ENG 102 - College Composition II**

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):** Satisfactory reading and writing placement or ENG 097.

**Pre/Corequisite(s):** ENG 101 and satisfactory math placement or any college level math.

## **ENG 200 - American Literature Through the Civil War**

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.

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#### 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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - o 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 <u>early in their program of study</u> 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

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.

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#### 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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

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

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 - Music Appreciation**

#### 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.

**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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

#### 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **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

<sup>\*\*</sup>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:

- 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.
- 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **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**

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.

### **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): Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **ENGR 102 - Engineering Problem Solving II**

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** 

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

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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

• 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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - O Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize information access and literacy skills.
  - o Acquire a cultural, artistic, and global perspective.
  - O 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **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, congressional presidential 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**

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 additional 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement 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.

### **PSYC 208 - Developmental Psychology**

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)

This course examines the visual and cultural factors which make up a work of art. The first part of the course concentrates on ways of relating to art as a visual language. The second part deals with art in its historical context. Emphasis is placed upon learning to see how human ideas and values are expressed visually.

**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.

#### **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, congressional presidential 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.

\*\*THIS PROGRAM IS UNDER CONSTRUCTION. PLEASE CHECK BACK FOR UPDATES!\*\*

# 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 <u>and</u> 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 the rapeutic 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### **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.

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#### MATH 210 - Introduction to Statistics

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

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, congressional presidential 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:
  - O Communicate effectively in oral and written formats.
  - Demonstrate critical thinking and problem-solving skills.
  - o Employ or utilize access and literacy skills.
  - O Acquire a cultural, artistic, and global perspective.
  - O 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 (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.

### **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, congressional presidential 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.

### PHIL 200 - Introduction to Philosophy

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 (15 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 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 - Music Appreciation**

#### 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.

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**

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**

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, congressional presidential 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 microprocessors. 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):** Must have equivalent math placement.

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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising

in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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):** Must have equivilant math placement.

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.

# Business Office, Business Career Studies, C.A.S.

#### Major Code: 156

Students selecting the Business Office option will be given training in word processing, transcription, spreadsheet applications, and office procedures which are essential in providing the administrative support in today's office environment.

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

- Create business documents using word processing software.
- Produce mailable documents from dictated materials.
- Create business documents using spreadsheet and database software.
- Integrate electronic office/business skills with decision-making skills.
- Compose various types of business correspondence applying appropriate writing techniques, accurate spelling, correct punctuation, and proper grammar.
- Demonstrate a knowledge of records management principles and filing procedures in maintaining business documents.

Occupations available for students completing program requirements include the following: general office clerk, office support clerk, transcriptionist, word processor, file clerk, receptionist, and information clerk.

Graduates may expect to obtain entry-level employment in insurance firms, banks, law offices, medical offices, and industrial offices.

Students completing the competencies in the following courses should be prepared to pursue Microsoft Office Specialist (MOS) certification in the following area:

• Microsoft Word I - Microsoft Certified Application Specialist: Microsoft Office Word. Microsoft Office Specialist (MOS) certification is possible in this program area. Employment possibilities are much higher with certification in specific software applications.

CIP Code: 520401

# 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.

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

## BA 240 - Business Law I

## 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

or

# 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.

## 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.

# **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

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

# Spring Semester (15 Credits)

# **ACC 123 - Principles of Accounting II**

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.

#### BA 241 - Business Law II

#### 3 Credit(s)

This course is a continuation of BA 240 with emphasis upon the law of commercial paper, sales, security devices, wills, estates and trusts.

Pre/Corequisite(s): BA 240.

or

# 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.

#### 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.

# Total Credits (30)

**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.

# 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 184 - Network + Fundamentals of Networking

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.

#### 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 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.

MATH - Mathematics Core Requirement 3 Credit(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 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 160 - PowerPoint/Microsoft Publisher

#### 3 Credit(s)

This course prepares students to create visually appealing business/computer presentations using MS PowerPoint, and introduces MS Publisher as a tool to help small business users create and distribute professional business communication and marketing materials. Topics covered include creating, formatting, and designing PPT presentations, and creating marketing materials for print, web, and e-mail messages using enhanced formatting tools, and other new and improved features.

## **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.

# **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.

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## **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 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 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 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.

• MATH - Mathematics Core Requirement 3 Credit(s)

#### **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 (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.**

\*\*FINANCIAL AID ELIGIBILITY PENDING FOR THIS PROGRAM\*\*

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**

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): Must have an equivalent math placement.

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):** Must have equivalent math placement.

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): Must have equivilant math placement.

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**

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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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

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.

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#### **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 (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.

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

## **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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation, and bonds.

**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 commercial 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): Must have an equivalent math placement.

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):** Must have equivalent math placement.

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):** Must have equivilant math placement.

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 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

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 addressed. Principles of growth and development throughout the life cycles are included.

Corequisite(s): LPN 121 ,LPN 123

# LPN 123 - Mental Health Concepts/ Geriatric Nursing

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.

 $\textbf{Corequisite(s):} \ LPN\ 130\ ,\ LPN\ 131$ 

# Total Credits (39)

A minimum of a "C" grade is required in all courses to remain in the program and graduate.

**IMPORTANT PRE-REQUISTE REQUIREMENT INFORMATION:**BIO 114, BIO 115, ENG 101, AHS 103 and ORNT 090 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.

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.

# 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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.

**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.

### 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 skilled patient care professional to perform basic medical services, help those who are ill or injured, and assist individuals who need help with daily activities. 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. Students will complete an extensive preceptor externship in a health care facility under the indirect supervision of faculty. The Program has an advisory board of health care professionals that guide's curriculum so the students learn the latest skills health care companies expect of graduates.

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

- Be eligible to graduate with a Certificate of Applied Science (CAS) in Patient Care Technician.
- Be eligible to sit for Patient Care Technician certification through the National Healthcareer Association (NHA).
- Be eligible to sit for separate Home Care Worker Exam.
- Be Basic Life Support (BLS) certified (provided within the course).
- Be eligible to obtain employment at a Health Care Facility or transfer/matriculate to an Associate or Bachelor Degree Program in Health Care.

Job Titles: Patient Care Technician (PCT), Direct Care Worker, Phlebotomist, EKG Technician

#### Wage and Employment Trends:

- \$25,710 Annual (2015)
- 1,492,000 Employees (2014)
- Much Faster than Average Projected Growth (14% or higher between 2017-2024)
- National Certification Options: Patient Care Technician, Phlebotomist, EKG Technician

CIP Code: 513902

# Fall Semester (15 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.

### 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.

**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.

### PCT 101 - Patient Care Technician I

#### 5 Credit(s)

This course is designed to prepare students for the Nursing Assistant-Direct Care Worker 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 nursing practice. Emphasis is on the personal qualities, knowledge, and skills needed by the nurse assistant 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, campus laboratory and supervised clinical experiences in a long term care facility and preceptor experience in the patient home setting. 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. Upon successful completion of the program the student is eligible to take the Direct Care Worker written and skill evaluation exam. This exam will be taken the last week of the course.

**Pre/Corequisite(s):** BIO 114 with a minimum grade of a C.

Restricted Electives 3 Credit(s) \*

# Spring Semester (14/16 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 - Math Core Requirement 3(4) 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.

Pre/Corequisite(s): BIO 114 with a minimum grade of a "C".

• Electives 2(4) Credit(s) \*\*\*

# Total Credits (30)

\*Restricted Electives: SPCH 101, SPCH 105, CIT 117, PSYC 105

\*\*Math Core Requirement: MATH 108, MATH 115

\*\*\*Electives: Math core and electives must total at least 6 credit hours.

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 selfemployed 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.

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

Pre/Corequisite(s): ENG 101 and satisfactory math placement or MATH 109.

#### BA 240 - Business Law I

#### 3 Credit(s)

This course examines the constitutional and historical foundations of the American court systems, with emphasis on the law of contracts, personal property, bailments, torts, crimes and agencies for enforcement.

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

Pre/Corequisite(s): ENG 101

### 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):** Satisfactory reading and writing placement or ENG 097.

Pre/Corequisite(s): ENG 101 and satisfactory math placement or any college level math.

### 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 is an introduction mainly to develop skills in reaching practical solutions to mathematical problems arising in business operations and in personal finances. Students will learn to solve problems in the following areas: checking accounts, bank statements, payroll, ratios, interest, bank discounts, compound interest, present value, income statements, balance sheets, trade discounts, cash discounts, sales commissions, and depreciation. and bonds.

**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: 395S

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

# Welding: Oil & Gas Pipe

### **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.

OI

### **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.

### 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 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 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.
- 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

# 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 five-week course is a continuation of WELD 102. Students become proficient at groove welding with and without backing.

Prerequisite(s): WELD 102. 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.

# Other Programs

# Electro-Mechanical Technology, A.A.S.

\*\*FINANCIAL AID ELIGIBILITY PENDING FOR THIS PROGAM\*\*

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.

### **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):** Must have an equivalent math placement.

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):** Must have equivalent math placement.

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): Must have equivilant math placement.

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

### Second Year

### Fall Semester (16 Credits)

• Restricted Core Elective\* 3 Credit(s)

#### 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 course: 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" <u>OR</u> 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.

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### **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 (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.

# Division of Economic and Workforce Development

The Division of Economic 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 preemployment 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** 

# 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
<b>Business Administration</b>
BA 090 - Keyboarding Skills for Information Processing
BA 100 - Introduction to Business
BA 240 - Business Law I
BA 241 - Business Law II
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

# **Computer Information Technology**

CIT 101 - Introduction to Cyber Security

**CIT 105 - Operating Systems** 

CIT 106 - Fundamentals of Hacking/IT Psychology and Security

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 Fundamentals** CIT 159 - Microsoft Publisher CIT 160 - PowerPoint/Microsoft Publisher **CIT 176 - Visual Basic Programming CIT 182 - PowerPoint Presentations** CIT 184 - Network + Fundamentals of Networking CIT 187 - HTML/CSS CIT 202 - Computer Support - Helpdesk/Applications **CIT 205 - Web Development Tools CIT 207 - Computer Applications Support** CIT 210 - SQL Server Administration CIT 215 - Client Side Scripting/JavaScript CIT 220 - Unix/Linux **CIT 222 - Technology Ethics CIT 227 - Applied Programming 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 253 - Web Application Programming
CIT 255 - Cybersecurity Network Defense
CIT 265 - Virtualization Concepts
CIT 272 - Object Oriented Programming/Data Structures
CIT 274 - Microsoft Server Setup and Troubleshooting
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 - Contemporary Issues in CRJ
CRJ 235 - Field Service
CRJ 245 - Introduction to Juvenile Justice System

**CRJ 246 - Probation and Parole** 

**CRJ 251 - Problems 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** 

# **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
ENC 1155 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** 

## 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
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

## **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 - Music Appreciation** 

## Nursing

- **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 Handson 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

#### **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 125 Anesthesia/Pharmacology for the Surgical Technologist
- 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 101 Oxyacetylene Welding
- 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

## **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 Inclusive 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:

- Intramural and Recreational Sports West Virginia Northern promotes physical fitness by giving students an opportunity to participate in intramural competition. On the basis of student interest in sports, the College endorses the formation of intramural sports teams. The goals of the intramural program are recreation, social interaction, physical fitness and the development of team leadership and group cooperation. Currently, WVNCC offers participation in flag football, volleyball, 3 on 3 basketball, and women's slow pitch softball. Specifics about joining a team can be obtained from 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.
- Campus Activity Board (CAB) CAB members are responsible for promoting, executing and assisting in the planning of student activities, sporting events, and community service on their campus.
- 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 under by clicking here. 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.

SREC courses can be taken at the in-state rate. Early entrance students taking college classes in the summer following their senior year will pay the early entrance rate. Contact your Campus Service Center for additional information.

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/future-students/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. A setup fee of \$20 is charged and allows students to spread payments over four months . 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 the semester	100% refund	Prior to Aug. 28, 2023
During the first week or 13% of the term	90% refund	Aug. 29 to Sept. 11, 2023
Students completing 14% - 25% of the term	75% refund	Sept. 12 to Sept. 25, 2023
Students completing 26% - 38% of the term	50% refund	Sept. 26 to Oct. 9, 2023
Students completing 39% or more of the term	No refund	After Oct. 9, 2023

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 entrance, 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.

# 2023-2024 Campus-Based Budgets for In-State Residents

	In-State Independents	In-State Dependents
Tuition and Fees	4,154	4,154
Program Fee	317	317
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,658	1,658
Transportation	1,517	1,517
Personal and Misc.	2,254	1,262
Living Expenses	8,744	4,372
Total Budget	\$ 19,004	\$13,640

# 2023-2024 Campus-Based Budgets for Metro Rate Residents

	Metro Rate Independents	Metro Rate Dependents
Tuition and Fees	8,762	8,762
Program Fees	317	317
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,658	1,658
Transportation	1,517	1,517
Personal and Misc.	2,254	1,262
Living Expenses	8,744	4,372
Total Budget	23,612	18,248

# 2023-2024 Campus-Based Budgets for Out-of-State Residents

	Out-of-State Rate Independents	Out-of-State Rate Dependents
Tuition and Fees	12,338	12,338
Program Fees	317	317
IT Fee	360	360
Books, Course Materials, Supplies and Equipment	1,658	1,658
Transportation	1,517	1,517
Personal and Misc.	2,254	1,262
Living Expenses	8,744	4,372
Total Budget	27,188	21,824

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
- Higher Education Adult Part-Time Student Grant (HEAPS)
- 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:

- 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.
- 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.

**MARY K. AHRENS SCHOLARSHIP -** Up to full tuition. Requires: High school students enrolled in the EDGE program. Minimum of one per Campus awarded.

**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 female 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 working adult at the New Martinsville Campus.

**IRENE KUCAN MEMORIAL SCHOLARSHIP** – Awarded to an incoming female 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. Special preference to single, working mothers.

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.

**WEIRTON WOMAN'S CLUB SCHOLARSHIP -** Requires: Full-time female student who resides in Weirton and shows academic promise and financial need. The final selection is made by the Weirton Women's Club for tuition and/or educational expenses.

**WOMAN'S CLUB OF WHEELING -** For a female student on the Wheeling Campus between 20-60 years of age who is preparing herself to enter or re-enter the work force. She must be a resident of Ohio, Marshall or Belmont County. Final selection is made by The Woman's Club of Wheeling's Education Committee.

**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.
- 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.
- 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 "Apply 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.

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 Emploment 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. DD214, Veterans Certification Sheet, etc.)
- Provide all information required of any student for admission to West Virginia Northern (e.g. Applications, SS number, transcripts, placement scores, FAFSA, 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 www.benefits.va.gov/gbill.

# **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 regional 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.

**Petition for alteration in graduation and program requirements** 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 petition 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 Provost/Vice President of Academic Affairs.

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 Provost/Vice President of Academic Affairs. 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. Failure to attend or actively participate can result in administrative withdrawal by the instructor.

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. Copies of transcripts will not be provided if a "hold" is placed on records and student may not be able to register for classes 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 Enrollments Management Office and the student is recommended to review his/her status with his/her academic advisor. The student is limited to no more than 12-15 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 will be notified in writing by the Registrar's Office The student is limited to no more than 12 credit hours. Academic Probation will not be notated on the official college transcript.

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 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.

Academic Suspension Requirements Students who fail to meet the criteria for Standards of Academic Progress after two 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 third 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 articulation or 2+2 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 Committee for Standards of Academic Progress, after consultation with the student's academic advisor. The decision of the committee is final. A student is allowed only two consecutive waivers in their academic career. Students on Academic Warning are not eligible for waivers.

## **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 "creditno 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  $(3 \times 4) = 12$  quality points

B in 4 credit hour course  $(4 \times 3) = 12$  quality points

C in two 3 credit courses  $(6 \times 2) = 12$  quality points

D in one 2 credit course  $(2 \times 1) = 2$  quality points

F in one 3 credit course  $(3 \times 0) = 0$  quality points

I in one 0 credit course  $(0 \times 0) = 0$  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 Provost/Vice President of Academic Affairs.

**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 reenrollment. 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. In the case of a tie, the number of

"K" credits may be considered. Students who wish to be considered for Valedictorian or special academic recognition need to apply for graduation by April 1.

## **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.

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.

## **Academic Support Services**

### **Academic Resource Centers**

All three West Virginia Northern Community College campuses provide student support through the Academic Resource Centers (ARC) which consists of the Academic Support Center (ASC) and the Learning Resource Center (LRC/Library). The centers located on each campus are staffed by professionals and paraprofessionals who provide academic and personal skill development opportunities. The centers 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
- mentor student through the FYS class, intended to connect students to the college community
- provide counseling and mental health referrals
- offer individualized placement testing, including test practice
- professionals who provide individualized support to students.

## **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 ASC on your campus to schedule an appointment for intake and registration. Accessibility Counselors work with faculty, staff, and community agencies to arrange for reasonable and appropriate accommodations.

Wheeling Campus	Weirton Campus	New Martinsville Campus
304.214.8923	304.723.7514	304.510.8773
asc@wvncc.edu	asc@wvncc.edu	asc@wvncc.edu

**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.

**Academic Recovery Program (ARP):** ASC staff serve as Academic Recovery Mentors who work with students on Academic Probation to articulate a plan for recovering their GPAs and maintaining good academic standing.

**Brightspace Assistance:** ASC staff are well prepared to help students develop proficiency using Brightspace, WVNCC's learning management system (LMS).

**Counseling Referrals & Mental Health Support:** The ASC can provide assessment tools and referrals for personal counseling and other mental health related resources.

**First-Year Seminar (FYS):** ASC staff coordinate this hybrid course designed to provide support and resources for students new to college. It is intended to connect students to the college community, programs, faculty, staff, and peers.

**Registration Assistance:** ASCs are equipped with computers and accessible, knowledgeable staff who can answer questions regarding the registration process and navigation of online tools and systems.

**Review & Retest:** ASC staff offer comprehensive, individualized placement test review and preparation that can save students time and money.

**Study & Work Space:** ASCs welcome students for quiet, contemplative study or energized, collaborative group sessions.

Technology Lab: ASCs 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 ASC. Employment as a tutor and/or workstudy is also available to qualified students.

Online Tutoring & Support: WVNCC tutors are available online through the Online Tutoring Center in Brightspace and 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 ASC on campus and online.

For individualized assistance, students can contact the Director, ROOM 225A B&O, 304-214-8853. The Director can help a student assess his/her needs and connect with college and community resources. Students may also be referred for individual assistance by faculty or staff.

## **Directory**

## **Archived Catalogs**

To view catalogs prior to 2018-2019, click on the link below:

#### **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

BARNHARDT, DAVID, Director of Communications & Student Recruitment; B.A., University of Akron

BENNETT, DEBORAH, Manager/Campus Operations, New Martinsville Campus; A.A.S., West Virginia Northern Community College; B.S., M.S., Mountain State University

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

FIKE, JANET M., Vice President of Student Care and Success; B.S., West Virginia Wesleyan College; M.S., Eastern Illinois University; Further Study: Marshall University

DLESK, KELLY, Director of Financial Aid; B.S., West Liberty University

HAWK, ANGELA, Director of Assessment: B.A., M.A., Ph.D., University of California

KAPPEL, STEPHANIE, Executive Assistant to the President; B.A., Bethany College; M.A., West Virginia University

KLEIN, PHILIP, Vice President of Economic Workforce and Development; B.A., Queens College; MPA, Kaplan University, Ed.D., University of Georgia

MARKER, PATRICIA, Director of Facilities & Project Management; Project Management Professional (PMP®); B.S., West Liberty University.

MILLER, JUSTIN, Assistant Director of Financial Aid;

MOSSER, DANIEL, President; B.S., California University of Pennsylvania; M.Ed., University of Maryland; Ph.D., University of Maryland

MULHERN, KARRI, Executive Director Business Services and Corporate Training; 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

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; B.A., Wheeling Jesuit 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, Executive Assistant to the President

Karri Mulhern, Executive Director of Business Services and Corporate Training

Tommy Regan, Chief Information Officer

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 Form**

## **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, Medical Laboratory Technician;

BAKER, CHANA, Assistant Professor, English; B.S., West Liberty University; M.A., Southern New Hampshire University; Additional Study: West Virginia Northern Community College.

BENNINGTON, LAURA, Instructor, Nursing; R.N.; A.A.S., West Virginia Northern Community College; BSN, California University of Pennsylvania; MSN, California University of Pennsylvania

BRITT, JOYCE, Assistant Professor, Psychology, Human Services and Sociology; Licensed Social Worker; A.A.S., West Virginia Northern Community College; B.A., Wheeling College; M.S., West Virginia University.

BUCHANAN, HOLLIE L., Assistant Professor, Math; B.A., M.S., Ph.D., West Virginia University.

CANTER, RAYMOND J., Assistant Professor, Psychology and Human Services; B.S., Wheeling Jesuit University; M.S., Shippensburg University.

COMBS, ROBERT, Instructor, Welding, 45 years of on-the-job work experience as a welder/pipe-fitter with GMAW/SMAW

CUMMINGHAM, SARA D., Assistant Professor, Surgical Technology, A.A.S., West Virgini Northern Community College, Certified Surgical Technologist (CST)

DAHLEM, ANITA, Assistant Professor, Nursing; B.S.N., Alderson Broaddus University; M.S.N., Walden University.

DOOLIN, JEREMY, Associate Professor, Computer Information Technology; B.S., Ohio University; B.A., Ohio University; M.S., Southern New Hampshire University.

FERRELL, DARCEY, Associate Professor, Psychology/Sociology/Human Services; Licensed Social Worker; B.A., Glenville State College; MSW, West Virginia University.

FROHNAPFEL, ABEL, Instructor, Nursing, B.S.N., Ohio University; M.S.N., Capella University

GOMEZ, DANIEL, Instructor Mathematics; B. A., State University of New York at Buffalo; M.S., University of Pittsburgh; M.S. Texas A&M University.

HARBERT CRYSTAL L., Division Chair, Liberal Arts/Communication/Social Sciences; Assistant Professor, English; B.A., M.A., Kent State University.

HAUSINGER, MELANIE, Instructor, Mathematics; B.A. Mathematics and History, Oberlin College, M.S., Mathematics, Eastern Michigan University

HAYS, DAVID, Assistant Professor, Nursing; Diploma, Trinity Health System School of Nursing, R.N.; B.S.N., Wheeling Jesuit University, M.S.N., Wheeling Jesuit University

HERRINGTON, KATHY L., Professor, Psychology/Sociology/Human Services, Program Director, Human Services and Education; Licensed Social Worker; B.A., Davis and Elkins College; M.S., M.A., West Virginia University; Further Study: West Virginia University.

HIPPENSTEEL, CURTIS, Division Chair, Applied Technology; Program Director, Energy Technology, Instructional Specialist, 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).

INDERMUHLE, DANA, Program Director/Instructional Specialist, Advanced Manufacturing, B.S., Electrical/Electronic Engineering

KAHL, MISTY, Program Director, 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, Program Director, Associate in Science Program; Assistant Professor, Biology; B.A. Wittenberg University, Ph.D. Texas A&M University.

KEFAUVER, CHRISTIAN, Program Director, Culinary Arts; Professor, Culinary Arts; C.E.C, F.M.P; A.A.S., West Virginia Northern Community College; B.S., Wheeling Jesuit College; M.A., West Virginia University.

KEYSER, JILL L., Program Director, 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.

KLEEH, DEBORAH, Program Director, Health Information Technology; Instructor, Health Information Technology; A.A.S., West Virginia Northern Community College; B.A., Wheeling Jesuit University

KRIECHBAUM, JENNIFER, Associate Professor, Mathematics; A.S. and B.S., Ohio University; M.S. Muskingum University.

LABRIOLA, JOHN, Program Director, HVAC; Instructional Specialist, HVAC; B.S. Liberty University; Further Study: Liberty University

LANTZ, JENNIFER, Associate Professor, 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 STEM and Business; Program Director, Criminal Justice; Assistant Professor, Criminal Justice; B.S., West Liberty University; M.S., Marshall University; Further Study: West Virginia University and American Public University.

LAWSON, MICHAEL, Program Director, Instrumentation Process Technology; Instructional Specialist, A.A.S., West Virginia Northern Community College

LEGHLID, SAID, Assistant Professor, Speech; B.A. Universite Cadi Ayyad; M.A., Bloomsburg University

MARTIN, SEQUIN, Instructor, Biology; B.A., University of Alabama; M.S., Alabama Agricultural & Mechanical University

MCINTOSH, MARY JEAN, Instructor, Nursing; B.S.N, Wheeling Jesuit University; M.S.N, Wheeling Jesuit University.

MULYUK, RUSTEM M., Assistant Professor, Mathematics; M.S.; Ph.D., Kazan Federal University.

NOPWASKY, BARBARA, Instructor, Nursing; B.S.N., Waynesburg College; M.B.A., Waynesburg College; M.S.N., Waynesburg College

OMELCHENKO-COMER, NATALIA, Assistant Professor, Biology; B.S., M.S., St. Petersburg State University; Ph.D., Highest Attestation Commission

PETERMAN, BONNIE, Division Chair, Health Sciences; Associate Professor; Surgical Technology; Certified Surgical Technologist; A.A.S., West Virginia Northern Community College; B.L.A., West Liberty University; Additional Study: Belmont Technical College, Queens College.

PITCHER, TAMI, Program Director, Surgical Technology; Assistant Professor, Surgical Technology; C.A.S., West Virginia Northern Community College; B.L.A., West Liberty University

REHO, JOHN W., Professor, English; B.S., California (Pa.) State College; M.A., University of Akron; Further Study: Kent State University, West Liberty University.

ROPER, PATRICIA, Associate Professor, Accounting; A.A.S., Belmont College; B.S., West Liberty University; M.S.A, Wheeling Jesuit University

RYAN, DELILAH, Professor, History; B.A., West Liberty University; M.A. (2), West Virginia University; Further Study: West Virginia University.

RYAN, HEIDI, Program Director, Computer Information Technology and Business/Accounting; Assistant Professor, Computer Information Technology; B.A., Robert Morris University; M.B.A., University of Maryland.

SCOTT-GUZEK, LYNDSIE, Instructor, Business and Accounting; B.B.A., Marshall University; M.B.A, West Liberty University

SOLE, BRENDA, Instructor, Patient Care Technology; A.A.S., Nursing

STEPHENS, MELISSA, Instructor/Clinical Coordinator, 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.

STOFFEL, DAVID J., Professor, Computer Information Technology; B.A., West Virginia Wesleyan College; M.S.S.E., West Virginia University; Additional Study: Colorado State University and West Virginia Northern Community College.

TIMKO, MELISSA, Program Director, Medical Assisting; Instructor, Medical Assisting; Certificate, Jefferson Community College; A.A.S., Eastern Gateway Community College

TUGALI, VIKRAM, Assistant Professor, Computer Information Technology; B.A., Kamala Institute of Technology & Science; M.S., Marshall University

WETZEL, JOSEPH, Instructor, Nursing; A.A.S., University of Cincinnati; B.S.N, Miami University; M.S.N., Walden University; additional study at Barry University

WINLAND, GREG, Professor, English; B.A., Wheeling Jesuit University; M.A., Miami University (Ohio); Ph.D., West Virginia University.

#### **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 Form**

### **Institutional Board of Governors**

Shelly Carenbauer, **Chair**Jacob Altmeyer, **Vice Chair**Larry Lemon, **Secretary** 

#### Lay Members:

Jacob Altmeyer

David Artman

Liz Hofreuter

Larry Lemon

Dennis McGlaughlin II

Christine Mitchell

Ron Scott, Jr.

Shelly Carenbauer

Christian Kefauver, Faculty Representative

Hilary Curto Wilson, Staff Representative

TBA, Student Representative

## 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 108** 

**MATH 109** 

**MATH 110** 

**MATH 113** 

**MATH 115** 

**MATH 116** 

**MATH 204** 

**MATH 205** 

**MATH 210** 

## **Guided Self Placement Form**

## **Placement Score Table**

Effective Fall 2023

Updated: August 21st, 2023

ENGLISH 097 SCORES	

	SAT			High School Equivalency Scores
Ι,	(MARCH 2016 & Later)	TABE	High School Grades/GPA	(HiSET/TASC/GED)
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 1	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	or Above	As or Bs 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 5 <sup>th</sup> Series N/A
	ENG	GLISH 101 or 1	ENG 115	
	SAT			High Cabacl Fauringlan an Casaca
ACT	(MARCH 2016 & Later)	TABE	High School Grades/GPA	High School Equivalency Scores (HiSET/TASC/GED)
	ERW 480 or Above	I		HiSET Reading 15 or Above AND Language Arts 15 or Above
English 18 or Above	OR	Language 547 or Above	As or Bs in all high school English courses AND 3.0 cumulative GPA	TASC Reading 580 or Above AND Writing 560 or Above
	Essay 13 or Above			GED 5 <sup>th</sup> Series Language Arts 165 or Above

	MATH 101, 109, 113, 115, 116, 2	04, or 205
	Math + Supplement	Math without Supplement
ACT	18 or BELOW	19 OR ABOVE

SAT (MARCH 2016 & Later)	509 or Below	510 or Above
TABE	536 or Below	537 or Above
High School Grades/GPA	As or Bs in all high school English AND Math courses AND 2.5 cumulative GPA	As or Bs in all high school English AND Math courses AND 3.0 cumulative GPA
High School Equivalency Scores	HiSET Math 14 or Below  TASC Math 559 or Below	HiSET Math 15 or Above  TASC Math 560 or Above
(HiSET/TASC/GED)	GED 5 <sup>th</sup> Series Math 164 or Below	GED 5 <sup>th</sup> Series Math 165 or Above

	Math 108, 110, or 210	
	Math 210	Math 108 and 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	As or Bs in all high school English courses, As in all high school Math courses, AND 2.5 cumulative GPA	As or Bs in all high school English courses, As in all high school Math courses, AND 3.0 cumulative GPA
High School Equivalency Scores	HiSET Math 15 or Above  TASC Math 560 or Above	HiSET Math 15 or Above  TASC Math 560 or Above
(HiSET/TASC/GED)	GED 5 <sup>th</sup> Series Math 165 or Above	GED 5 <sup>th</sup> 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.

## **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.

## **Business Advisory Committee**

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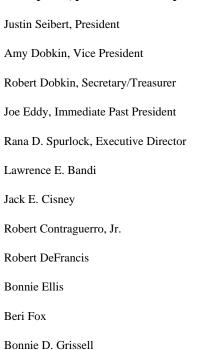
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