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# 2015-16 Course Catalog

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Bridge



**BridgeValley**  
Community & Technical College



# General Information

GENERAL INFORMATION

## General Information

### ACCREDITATION

BridgeValley Community and Technical College is accredited by the Higher Learning Commission. Information regarding affiliation status may be directed to;

Higher Learning Commission  
30 North LaSalle Street, Suite 2400,  
Chicago, Illinois 60602-2504  
(Phone: 800-621-7440)

### PROGRAM ACCREDITATION

Information regarding specialized program accreditation may be directed to the following accrediting agencies:

#### **DENTAL HYGIENE:**

Commission on Dental Accreditation  
American Dental Association  
211 East Chicago Avenue  
Chicago, Illinois 60611-2678  
(Telephone: 800-621-8099, ext. 4653)

#### **MEDICAL LABORATORY TECHNOLOGY:**

National Accrediting Agency for Clinical Laboratory Sciences  
5600 N. River Road, Suite 720  
Rosemont, IL 60018  
(Telephone: 773-714-8880)  
[www.naacls.org](http://www.naacls.org)

#### **NURSING:**

Accreditation Commission for Education in Nursing, Inc.  
Dr. Marsal P. Stoll, RN, Chief Executive Officer  
3343 Peachtree Road NEW, Suite 850  
Atlanta, Georgia 30326  
[MStoll@acenursing.org](mailto:MStoll@acenursing.org)

West Virginia Board of Examiners for Registered Professional Nurses  
101 Dee Drive, Suite 102  
Charleston, WV 25311-1620  
[Laura.S.Rhodes@wv.gov](mailto:Laura.S.Rhodes@wv.gov)

### **NUCLEAR MEDICINE TECHNOLOGY:**

Joint Review Committee on Educational Programs in Nuclear Medicine Technology  
Of the American Medical Association

### **RESPIRATORY THERAPY:**

Committee on Accreditation for Respiratory Care  
1248 Harwood  
Road, Bedford, Texas 76021-4244  
(Telephone: 817-283-2835)

### **VETERINARY TECHNOLOGY:**

American Veterinary Medical Association  
1931 North Meacham Road  
Suite 100, Schaumburg, IL 60173-4360  
(Telephone: 800-248-2862)

### **ENGINEERING TECHNOLOGY-**

Civil Engineering Technology  
Drafting and Design Engineering Technology,  
Electrical Engineering Technology,  
Mechanical Engineering Technology  
Are accredited by the Engineering Technology Accreditation Commission of ABET,  
<http://www.abet.org>

## **COMPLIANCE STATEMENT**

It is the policy of BridgeValley Community and Technical College to provide equal opportunities to all prospective and current members of the student body, faculty and staff based on individual qualifications and merit without regard to race, color, religion, sex, marital status, disability, veteran status, sexual orientation, national origin or age. This policy complies with the requirements of Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and all other applicable federal, state and local statutes, ordinances and regulations.

Information on the implementation of the policy may be obtained by contacting:

AA/EEO/ADA/ Justice Officer  
Michelle Bissell  
2001 Union Carbide Drive  
South Charleston, WV 25303  
(304) 205-6606

### **INSTITUTIONAL CONTACT INFORMATION**

BridgeValley Community and Technical College  
2001 Union Carbide Drive  
South Charleston, WV 25303  
(304) 205-6600  
www.BridgeValley.edu

### **DISCLAIMER**

The BridgeValley Community and Technical College catalog is used as a source of information for curriculum, course offerings, admission, graduation requirements, and other rules and regulations pertaining to the college. While every effort has been made to provide a correct catalog, the institution reserves the right to delete, change, or amend this information as necessary.

### **STUDENT RIGHT- TO -KNOW AND CAMPUS SECURITY ACT**

On November 8, 1990, the Student Right-to-Know and Campus Security Act was signed into federal law. This Act (Public Law 101-542) requires institutions to produce and make available annually the completion or graduation rate of first-time, full-time, certificate/degree seeking undergraduates.

Graduation rates for all West Virginia public higher education institutions are published in the West Virginia Higher Education Report Card, which is available at any of the public colleges and universities and at the main public libraries throughout the state.

For information pertaining to graduation rates at BridgeValley Community and Technical College, contact the Office of the Registrar and Records at (304) 205-6708.

### **AMERICANS WITH DISABILITIES ACT**

Section 504 of the Rehabilitation Act of 1973 prohibits discrimination based on disability in programs or activities receiving federal financial assistance, including going to public or private college or university. It ensures to the maximum extent possible that people with disabilities have the opportunity to be fully integrated into mainstream life. It applies to all qualified people with disabilities, regardless of where special education services are required in public elementary, secondary or postsecondary settings.

BridgeValley Community and Technical College is committed to excellence in education through an accessible, inclusive learning environment that provides leading edge technology and dynamic service to a diverse student body on campus, in our communities, and at a distance. Students who are protected by ADA and would benefit from reasonable accommodations should meet with the Disabilities Services counselor in the Office of Student Services.

### **COMMITMENT TO SOCIAL JUSTICE**

The pursuit of truth underlying the mission of BridgeValley Community and Technical College focuses attention on issues of diversity, power, and perspective, so that students, faculty, and staff may study and work in a climate of academic freedom and responsibility, developing the skills, knowledge, and self-esteem necessary for participation as world citizens. Equal opportunity is a fundamental goal in a democratic society, and BridgeValley Community and Technical College shares the responsibility for

achieving that equity. The institution is committed, therefore, to ensuring that all persons, including women; people of color; people with disabilities; gays, lesbians, and bisexuals; veterans; and people of different religions, ages, and international, ethnic, and economic backgrounds benefit from the many opportunities the institution provides. In keeping with this responsibility, the members of the academic community are expected to demonstrate mutual respect, understanding, and appreciation for all persons; to express that perspective in every dimension of the institution's life and mission; and to work cooperatively, representing not only the interests of their own groups, but also those of the wider community. The importance of the social justice program goes beyond the benefits that accrue to any one person or group, to the strengthening of the institution and the enhancing of the ability to accomplish the mission with which they have been entrusted by the people and the state of West Virginia.

### **MEDIATION**

Conflict is a part of everyday life and is not necessarily good or bad. The mediation of conflicts that arise among us is an important tool in helping members of our community successfully live and work well together. The Social Justice Office administers the Mediation program at BridgeValley Community and Technical College. Common causes of conflict are breakdowns in communication, contradictory beliefs and values, changes, cultural differences, and misinformation. Conflict makes many people uncomfortable, disrupts work, may cause illness, and is often times difficult to define and deal with. Examples include, but are not limited to: supervisor/employee relationships; co-worker behavior; work expectations; schedules; annoying habits; credit for work done; and many more. Mediation is a structured process of communication that creates a special context for people to discuss and resolve issues of mutual concern. Mediators lead the process to clarify issues, identify options, and create an agreed-upon course of action. Mediation is a valuable alternative in resolving differences. Participation is always voluntary on the part of all parties and mediation occurs during official work time.

If assistance is needed to arrange for mediation, please contact the Dean of Student Services at 304-205-6710. There is no charge for this service.

### VISION

BridgeValley Community and Technical College will be the college of opportunity for a diverse learner population, offering leading-edge technology, innovative ideas, and dynamic service to our students and our communities.

### MISSION

BridgeValley Community and Technical College promotes student success, prepares a skilled workforce, and builds tomorrow's leaders by providing access to quality education.

### INSTITUTIONAL VALUES

Faculty, staff, and administrators share a common set of values that guides the College in fulfilling its mission. These values influence our actions, guide our decision, mold our policies, and determine our strategic planning.

**Excellence in Education.** We are dedicated to excellence in education by providing a highly competent, innovative, and supportive faculty and staff; facilities equipped with current technology; quality academic and occupational programs; and integrity and high standards in teaching, learning, and service.

**Accessibility and Achievement.** We are committed to access and affordability of higher education for all students and the delivery of education and support services that will enable students to achieve their individual educational goals in course, skill set, or program completion.

**Respect for Diversity.** We value intellectual and cultural diversity. We believe that all individuals should have an opportunity to learn and succeed in the classroom, in the workplace, and in the community and encourage a diverse student body through open admission and delivery of educational services that support student success.

**Accountability.** We are committed to efficient and effective management of human and financial resources that will maintain public trust and ensure a fiscally responsible, sustainable environment for the institution.

**Quality of Work Environment.** We value each member of our community; promote free, open and responsible exchange of ideas; foster respect, trust, and support among faculty, staff, and students through shared governance; encourage ethical risk-taking and innovation; recognize exceptional performance and contributions made to our dynamic learning environment.

**Contribution to Community and Economic Development.** We are committed to serving the academic, occupational, and enrichment needs of our communities; enhancing quality of life; and supporting economic development through effective business and industry partnerships and collaborations.

**Commitment to the Future.** We are dedicated to continuous evaluation of the institution in order to address the needs of the present and the challenges of the future.

### GOALS

#### Goal One: Student Success

##### Objectives:

- Prepare students to become successful and independent contributors to society by providing transfer skills for future technical innovations
- Maintain a sound assessment program for student learning outcome measurement
- Ensure a student-centered learning environment and support services
- Increase retention rates
- Increase the number of graduates in certificate and associate degree programs

#### Goal Two: Institutional Success and Sustainability

##### Objectives:

- Promote faculty and staff excellence
- Increase headcount and FTE enrollment annually
- Pursue new revenue opportunities to support present and future programs and services
- Assess institutional effectiveness and continuous improvement through strategic planning
- Leverage the strengths and efficiencies of a multi-campus college
- Promote the college to community and industry through effective marketing, branding, and public relations opportunities
- Provide access to education, training, and enrichment opportunities on multiple campuses, off-site, or on line
- Promote sustainability principles throughout college operations
- Maintain a safe, secure, modern, and positive learning/working environment

#### Goal Three: Community and Industry Success

##### Objectives:

- Exhibit responsiveness and flexibility in course and program offerings to meet changing workforce needs of business and industry
- Build synergistic relationships with community, schools, and alumni
- Integrate community service and civic engagement opportunities into programming
- Forge strategic partnerships that advance community, workforce and economic development



### HISTORY

BridgeValley Community and Technical College, formed in 2014 with the merger of Bridgemont and Kanawha Valley Community and Technical Colleges, is accredited by the Higher Learning Commission. The service region for the multi-campus consolidated institution includes Fayette, Kanawha, Clay, Putnam, Nicholas, and Raleigh counties.

The new community college evolved in response to the educational and economic development needs for the State of West Virginia. Associate degree program offerings in the region began in the late 1940s and early 1950s at West Virginia State College and West Virginia Institute of Technology. In the 1960s, each of these colleges created “community college components” on the respective campuses. In 1999, the state legislature created a separate community and technical college system. Community college components hosted by baccalaureate institutions began the process of becoming independent colleges. In 2004, independent accreditation was achieved. The Community and Technical College at West Virginia University Institute of Technology and West Virginia State Community and Technical College were formed.

The new community colleges were asked to change names in 2009 to emphasize their mission and create distinction from the baccalaureate colleges. The Community and Technical College at WVU Tech became Bridgemont Community and Technical College; West Virginia State Community and Technical College became Kanawha Valley Community and Technical College. The two colleges worked collaboratively to avoid duplication of programs in their overlapping service regions.

During the 2013 legislative session, Senate Bill 438 was passed to consolidate Bridgemont and Kanawha Valley to form a stronger, more comprehensive multi-campus institution for the six-county region. A Board of Governors was appointed to oversee the consolidation; the name BridgeValley was selected to represent the fusion of the institutions.

The official founding date of BridgeValley, March 20, 2014, signifies the completion of all accreditation requirements for the college and the beginning of a new era in community and technical college education for the region.

### LOCATION

BridgeValley Community and Technical College is a multi-campus institution with locations in South Charleston and Montgomery, WV. The two campuses are 34 miles apart, both situated near the Kanawha River in the rugged Allegheny Mountains. This diverse service area includes the New River Gorge National Park reserve near Fayetteville, the state Capitol complex in Charleston, and the chemical, energy and manufacturing center for the southern part of the state.

The South Charleston facilities are located on the campus of the West Virginia Regional Technology Park, a mixed-use research and industry property. The college buildings include Main, Annex, and the Advanced Technology Center for South Central West Virginia.

Davis Hall, the main building for the Montgomery campus and adjoining Westmoreland Hall, are located on the campus of West Virginia University Institute of Technology (WVU Tech); the Publishing Innovation Center and Diesel Technology Center resides in the leased facilities on Third Avenue. Access to both campuses is provided through Interstate Routes 64, 77, and 79, U.S. Route 60, Charleston Yeager Airport, and the Beckley/Raleigh County Airport. Bus service is available through Charleston and Beckley, as well as more distant points. The Kanawha Rapid Transit (KRT), with convenient schedules between Montgomery, Charleston, and other towns in the Kanawha Valley. Amtrak service is available in Montgomery to Chicago.



# Admissions

# Admissions

BridgeValley Community and Technical College adheres to an open admissions policy. It is the intent of this policy that area residents shall have access to higher education opportunities commensurate with their interest and abilities. BridgeValley abides by the Community and Technical College System on residency classification for determining tuition and fees. For the full text, visit [www.wvctcs.org/rulesandpolicies](http://www.wvctcs.org/rulesandpolicies)

Applications for admission may be completed on-line at [www.BridgeValley.edu](http://www.BridgeValley.edu), contacting the Division of Enrollment Management at the South Charleston campus at 2001 Union Carbide Drive, South Charleston, WV 25303 or the Montgomery campus at 619 2nd Avenue, Montgomery, WV 25136, or requesting an application be mailed by telephoning 304.205.6700 South Charleston campus or 304.734.6604 Montgomery campus.

### GENERAL ADMISSIONS INFORMATION

Regular (degree-seeking) admission is available for all persons who have obtained a high school diploma or a General Education Development (GED/TASC) diploma. Applicants who have neither a high school diploma nor a General Education Development (GED/TASC) diploma may be admitted on a conditional basis, but will be evaluated at the end of each semester for academic progress. Students admitted on a conditional basis are not eligible for financial aid. (See section “Conditional admission”) Individuals may also enroll as a non-degree seeking student to take courses for personal or professional enrichment. Students who are enrolled with a “non-degree” status are not eligible for financial aid.

Admission to BridgeValley Community and Technical College does not guarantee acceptance into “selective admission” associate or certificate programs. Selective admission programs have additional admission requirements. (See section “Conditional Admission Requirements” for additional information.)

Scores from standardized tests such as the American College Test (ACT), Scholastic Aptitude Test (SAT), ACCUPLACER or COMPASS are not required for admission. However, scores from one of these tests are required for placement and counseling purposes, and must be taken prior to registering for classes.

***\*PLEASE NOTE: West Virginia residents are highly encouraged to take the ACT or SAT test as scores from these tests are required for certain West Virginia scholarships and grant programs including the Promise Scholarship, as well as campus-based scholarships from the institution.***

## PLACEMENT GUIDELINES

### Placement Guidelines for English Courses

COURSE	ACCUPLACER	ACT	COMPASS	SAT	COURSE PREREQUISITES
Bridge to College or ENGL 020 A.E. English	Sent. Skills 0-44 *	English 0-10 *	Writing Skills 0-18	Writing 200-320	
	Read. Comp. 0-34 *	Reading 0-11 *	Reading Skills 0-48 *	Critical Reading 200-320	
ENGL 101 English Composition I	Sentence Skills 45-65	English 11-15	Writing Skills 19-59	Writing 330-420	
and ENGL 095 Accelerated Integrated Reading and Writing	Reading Comp. 35-59 *	Reading 12-14 *	Reading Skills 49-69 *	Critical Reading 330-430 *	
ENGL 101 English Composition I	Sentence Skills 66-87	English 16-17	Writing Skills 60-70	Writing 430-440	
and ENGL 096 Accelerated Writing Skills	Reading Comp. 60-78 *	Reading 15-16 *	Reading Skills 70-74 *	Critical Reading 440-450 *	
ENGL 101 English Composition I	Sentence Skills 88+	English 18+	Writing Skills 71+	Writing 450+	ENGL 020, SC ENG 095 OR some combination of scores/courses (grade of C) in both writing & reading. <i>Writing:</i> MC ENGL 095, SC ENG 085. <i>Reading:</i> MC ENGL 091 or 093, SC ENG 065
	Reading Comp 79+ *	Reading 17+ *	Reading Skills 75+ *	Critical Reading 460+ *	
All other English courses 100-level or greater					Grade of C in ENGL 101 or ENG(L) 110

**\*Placement will be primarily by English score. However, if the Reading score is lower, the student will be placed according to that score.**

Placement Guidelines for Math Courses

COURSE	ACCUPLACER	ACT	COMPASS	SAT	COURSE PREREQUISITES
Bridge to College or MATH020 A.E.Math	Arithmetic 0-39 Elem. Alg. 0-42	Math 0-13	Pre-Algebra 0-20 Algebra 0-18	Mathematics 200-320	
MATH 060 Bridge to Algebra	Elem. Alg. 43-83	Math 14-18	Algebra 19-35	Mathematics 330-450	A.E. Math
MATH 111, 112 (BUSN 112), 113, or 115 <b>WITH</b> MATH 011, 012, 013, or 010 Seminar	Arithmetic 40-84	Math 14-18	Pre-Algebra 21-58	Mathematics 330-450	
MATH 111 Math for Health Care, BUSN 112 Business Math, MATH 113 Math Reasoning, MATH 115 Appl. Tech.Math	Arithmetic 85+ MATH 113 only: Arithmetic 85+ and Elem. Algebra 57+	Math 19+	Pre-Algebra 59+ Math 113 only: Pre-Algebra 59+ and Algebra 26+	Mathematics 460+	Grade of C in MATH 020, SC MAT 065 or 011, MC MATH 020
MATH 125 College Algebra Expanded	Elem. Algebra 84+	Math 19+	Algebra 36+	Mathematics 460+	Grade of C in MATH 060, MC MATH 040, SC MAT 085 or 012
MATH 130 College Algebra	Elem. Algebra 108+	Math 21+	Algebra 45+	Mathematics 500+	Grade of B in MATH 060 or MC MATH 040 or grade of C in SC MAT 110
MATH 135 Technical Algebra, MATH 140 Trigonometry	Elem. Algebra 84+	Math 19+	Algebra 36+	Mathematics 460+	Grade of C in MATH 060. For other courses, consult Gen Ed. Dept. Chairs.
MATH 155 Technical Calculus	Elem. Algebra 120	Math 28+	Algebra 90+	Mathematics 620+	Grade of C in MATH 130 (or MATH 125) and MATH 140

*Note: Please see the General Education Dean or the Dev. Education Department Chair if score interpretation assistance is needed.*

### DEGREE-SEEKING ADMISSIONS REQUIREMENTS

Persons interested in applying for Certificate (one-year) or Associate (two-year) Degree programs must submit the following documents to the Division of Student Affairs:

1. A completed BridgeValley Community and Technical College Application for Admission.
2. An official high school transcript or GED/TASC scores report.
3. An official transcript from each previous college or university attended. *Note: Official transcripts must be mailed directly to BridgeValley Community and Technical College from the issuing institution.*
4. ACT/SAT or other placement test (ACCUPLACER, ASSET, or COMPASS) scores. (Required for placement in math and English courses.)

Provisional admission may be granted to degree-seeking students whose admission, readmission, or transfer admission documentation is incomplete at the time classes begin.

*(NOTE: Financial aid will not be processed until all records are received.)*

If student records indicate a student does not meet regular degree-seeking admissions requirements, either the registration will be voided or the student will be conditionally admitted.

If records are not received by the Division of Students Affairs by the designated time, the student's registration will be voided. If the registration is voided, there will be no refund of tuition and fees.

### CONDITIONAL ADMISSION REQUIREMENTS

Conditional admission maybe granted to students that have neither a high school diploma nor a GED/TASC. Where institutional officials have determined the student has the potential to successfully complete college work. Conditionally admitted students must meet the following requirements:

1. Must be 18 years of age or older.
2. Will be evaluated at the end of each semester of enrollment for academic progress.
3. Must successfully complete all developmental courses.
4. Must pass the GED/TASC and be in good standing before being admitted as a regular degree-seeking student.

Conditionally admitted students may be allowed to complete a maximum of 12 credit hours per semester.

Conditionally admitted students are not eligible for financial aid.

### NON-DEGREE SEEKING ADMISSION REQUIREMENTS

Individuals that wish to enroll at BridgeValley Community and Technical College to take credit classes for personal enrichment, job improvement, or for reasons other than seeking a degree may enroll as a non-degree student. Non-degree applicants must submit the following documents to the Division of Student Affairs.

1. A completed BridgeValley Community and Technical College application for admission. Non-Degree seeking students are not eligible for financial aid.

Non-Degree students who wish to change to the degree-seeking status must complete the necessary forms in the Division of Student Affairs and also submit the following documents.

1. An official high school transcript or GED/TASC scores report.
2. An official transcript from each previous college or university attended. (Note: Official transcripts must be mailed directly to BridgeValley Community and Technical from the issuing institution.)
3. ACT/SAT or other placement test (ACCUPLACER, ASSET, or COMPASS) scores. (Required for placement in math and English courses.)

### TRANSFER STUDENT REQUIREMENTS

Individuals may transfer to BridgeValley Community and Technical College from other accredited postsecondary institutions. Transfer students must meet BridgeValley's admission requirements. The transferring applicant must submit the following documents to the Division of Students Affairs:

1. A completed BridgeValley Community and Technical College Application for Admission.
2. An official transcript from each previous college or university attended. (Note: Official transcripts must be sent directly to BridgeValley Community and Technical College from the issuing institution.)
3. An official high school transcript or GED/TASC score report for transfer applicants with less than 15 credit hours of college work.
4. ACT, SAT scores, or other state-approved placement test scores are required for transfer applicants with less than 15 semester hours of college credit and for those who have not successfully completed the first level of college math and English courses in their program.

BridgeValley Community and Technical College reserves the right to suspend or expel any student who does not reveal previous college records and/or who misrepresents the truth on any admission document.



The institution abides by the West Virginia Council for Community and Technical College Education Series 17: Rules and Policies for Transferability of Credits and Grades at West Virginia Public Colleges and Universities. Credits and grades for college-level courses completed at previous accredited institutions will be evaluated by the Registrar's Office and recorded on the BridgeValley Community and Technical College transcript with equivalents noted when applicable.

### **READMISSION REQUIREMENTS**

#### **READMISSION DUE TO NON-ATTENDANCE**

Individuals seeking readmission because of discontinued studies by not enrolling for one or more academic semesters must complete a readmission application in the Division of Student Affairs. Students with a cumulative GPA below 2.00 will be required to meet with the Vice President of Academic Affairs prior to registering for any courses offered by BridgeValley Community and Technical College. Students who have attended another institution(s) during their absence from BridgeValley Community and Technical College will be considered transfer students. Please follow the instructions listed under "Transfer Students". Readmitted students may be required to meet academic standards which have changed during their absence.

#### **READMISSION DUE TO ACADEMIC REASONS**

Persons who were required to discontinue their studies due to academic reasons and are now seeking readmission must submit a readmission application to the Academic Affairs Office with complete academic records and a narrative as indicated on the application. The student must schedule a meeting with the Vice President for Academic Affairs after submitting this information where a decision on readmission will be made and the conditions of readmission will be applied, if appropriate.

#### **TRANSIENT STUDENTS REQUIREMENTS**

Students enrolled at another postsecondary institution wishing to enroll in courses at BridgeValley may be admitted as transient students. The transient student must submit the following:

1. A completed BridgeValley Community and Technical College Application.
2. A completed Transient Approval Form from their home institution.

BridgeValley Community and Technical College students who wish to enroll at another institution as a transient student must complete a BridgeValley Transient Approval Form with appropriate signature approvals.

### EARLY ENTRANCE HIGH SCHOOL STUDENTS REQUIREMENTS

1. The student must complete a consent form signed by his/her parent and the high school principal or counselor.
2. The student must submit a completed BridgeValley Community and Technical College application for admission.
3. The student must have a 2.5 average or be recommended by a counselor or a principal.
4. Early entry students must meet prerequisites for courses, which may include ACT/SAT scores, or other state-approved placement test scores.
5. Early entry students are not eligible for financial aid.

### INTERNATIONAL STUDENT REQUIREMENTS

International students must have their completed application on file at least four (4) months prior to their intended date of enrollment. International students must complete the equivalent of a secondary education with higher than average grades. The Test of English as a Foreign Language (TOEFL) is required of all students with a native language other than English. International students must submit the following documentation to the Division of Students Affairs.

1. An international student application at least four (4) months prior to their intended date of enrollment.
2. Official records equivalent of a secondary education with higher than average grades. Official transcripts (from all institutions) of previous college work completed. All documents must be translated to the English language. For consideration, international college transcripts must be evaluated on a course-by-course basis by an approved third-party. Our preferred translation and evaluation service is the American Association of Collegiate Registrars and Admissions Officers (AACRAO). For more information regarding transcript translation and evaluation and to apply for an individual course-by-course evaluation, please visit <http://ies.aacrao.org/evaluations/app.php>
3. The Test of English as a Foreign Language (TOEFL) with a score of 500 on the paper-based test, or 173 on the computer-based version, or 61 or above on the internet-based version, or a score of 6.5 or above on the International English Language Testing Service (IELTS). Only official score reports for the TOEFL are acceptable. Under no circumstances will photocopies serve as an official score report.
4. A certification of "Financial Support Statement" from a financial institution.

Additional standardized tests are required for placement and counseling purposes, and must be taken prior to registration. Acceptable placement tests include ACT, SAT, Accuplacer or COMPASS.

## Admission to Specific Academic Programs

### Selective Admission Programs

BridgeValley offers several academic programs with limited enrollment and specific requirements for consideration of admission into those programs. The programs with selective admission are extremely competitive and the number of students admitted to these programs is limited to assure appropriate educational services and academic excellence. The admission decisions of the respective selective admission committees are final.

### Dental Hygiene, Associate in Science

The Dental Hygiene program is a limited enrollment program which admits one class each fall semester. An admissions committee selects candidates. To be considered for admission, applicants must first meet one of the following minimum requirement options:

#### Minimum Requirements

(Choose one option)

#### Option 1

1. ACT composite score of 20. (SAT equivalent composite score 950)
2. High school grade point average of 3.0 on a 4.0 scale. (GED equivalent average 500; sub scores 410)
3. ACT math score of 19.
4. Two high school science courses completed at a "B" or higher level, including Chemistry.

#### Option 2

1. High School Graduation/GED/TASC completion
2. 12 hours college credit with a minimum grade of "C" in each course at an accredited institution of higher learning within the past five years. These courses must have included 8 credit hours of General Chemistry and a Biology both with laboratory components. (Developmental or remedial courses will not be considered).
3. ACT math score of 19. If the applicant's ACT math score is less than 19, then the individual must complete appropriate developmental math course/courses equivalent to BridgeValley MATH 111.
4. Cumulative college grade point average of 2.0 on a 4.0 scale.

In addition to meeting minimum requirements, all applicants must submit:

1. A one page, handwritten essay detailing reason for application to the program.
2. Two letters of recommendation for admission into the program.
3. 20 hours of shadowing experience in a dental office verified by a letter from the supervising dentist.
4. Official copy of high school transcripts.
5. Official copy of previous college transcripts.

Current students enrolled in BridgeValley Community & Technical College who meet the above guidelines will be given first consideration for admission when having the same qualifications as an off-campus student.

Blood borne Pathogens/Radiation Safety/HIPAA/Ethics Policies: Department policies related to blood borne pathogens, radiation safety, HIPAA and Ethics are available for review at <http://www.bridgevalley.edu/dental-hygiene-policies>. All transcripts, essays, recommendations, shadowing documentation and related materials are due in the admissions office by January 31st for consideration of fall admission.

### **Emergency Medical Services Technology (Paramedic), Associate In Applied Science**

The Emergency Medical Services Technology program is a selective admission program. Candidates must meet the admission requirements listed below.

All persons seeking admission to the A.A.S. Degree Program in Emergency Medical Services Technology:

1. Must be fully admitted to BridgeValley Community and Technical College. This includes the submission of ACT or SAT I scores, official high school transcripts or GED score reports, and official transcripts from all previous colleges attended to the Admissions Office.
2. Must also submit an EMST Program application to the EMST Program by October 1 preceding the spring admission. These applications are available on the website, [www.bridgevalley.edu](http://www.bridgevalley.edu). Official copies of transcripts must accompany application to the EMST Program; however, an official BVCTC transcript listing all previous college credit is acceptable.
3. Must have a current, valid West Virginia EMT certification.

High School Applicants (or those with less than 12 college credit hours):

1. Must have a minimum of a 3.0 High School grade point average (GPA) or GED with 45 on all sub-scores.
2. Must have a minimum ACT composite score of 21 with a minimum score of 19 in all sub-scores or 1000 SAT I with 490 verbal and 480 math sub-scores.

College Applicants (with 12 or more credit hours):

1. Must have a minimum of a 2.50 cumulative GPA on all previous college credits.
2. Must be eligible for English 101 and Math 113.

Students should be aware that clinical agencies require students to pass a criminal background check and drug screen in order to have learning experiences in their facilities. This will require a criminal and traffic violation check. Other additional admission requirements, such as a screening interview, may be required. All students admitted must meet and be able to perform the Technical Standards of the Program.

### **Medical Laboratory Technology, Associate in Applied Science**

The Medical Laboratory Technology is a selective admission program. Candidates must meet the admission requirements listed below.

All persons seeking admission to the A.A.S. Degree Program in Medical Laboratory Technology:

1. Must be fully admitted to BridgeValley Community and Technical College. This includes the submission of ACT or SAT 1 scores, official high school transcripts or GED/TASC scores reports and official transcripts from all previous colleges attended. Must also submit a MLT Program application to the MLT Program during the application period of January through March preceding the summer admission. These applications are available on the website, [www.bridgevalley.edu](http://www.bridgevalley.edu). Official copies of transcripts must accompany application to the MLT Program; however, an official BridgeValley Community and Technical College transcript listing all previous college credit is acceptable.
2. Must have completed all the prerequisite courses or have them in progress by the application period.
3. Must have a minimum of a 2.75 cumulative GPA on all previous college credits.
4. Must have a grade of "C" or better in all science classes.

Students should be aware that clinical agencies require students to pass a criminal background check and drug screen in order to have learning experiences in their facilities. This will require a criminal background check. Other additional admission requirements, such as screening interviews or health screenings, may be required. All students admitted must meet and be able to perform the Technical Standards of the Program.

### **Diagnostic Medical Sonography, Associate in Applied Science**

The Diagnostic Medical Sonography program is a limited enrollment program with selected admission based on application scores followed by interview scores.

#### **All persons seeking admission to the A.A.S. Degree Program in Diagnostic Medical Sonography:**

1. Must be fully admitted to BridgeValley Community and Technical College. This includes the submission of ACT or SAT scores, official high school transcripts or GED/TASC score reports and official transcripts from all previous colleges attended.
2. Must complete Diagnostic Medical Sonography (DMS) pre-requisite courses with a 2.75 GPA or higher prior to beginning the DMS program.
3. Must complete a DMS program application with required supporting documentation. The application is located on the BridgeValley Community and Technical College website. The application must be submitted prior to the deadline noted on the application.
4. Must have documentation of sonographer shadowing/observation experience

#### **Initial Applicant Scoring:**

Applicant scoring is based on the following criteria:

- Pre-requisite GPA
- Grades in the core sonography cores: Anatomy, Physiology, Physics, and Introduction to Sonography
- Allied health certification
- Patient care experience
- Educational degrees
- Veteran status
- Shadowing/observation experience

#### **Interview Scoring:**

An interview pool is created for students with the highest applicant scores. Interview scoring is based on the following criteria:

- Presentation,
- Communication,
- Knowledge of the ultrasound profession
- Goals
- Motivation
- Work experience
- Patient care experience
- Level of commitment
- Professionalism

## Admissions

Drug Screening and Criminal Background checks are required prior to enrollment in the Diagnostic Medical Sonography program in order to ensure the safety of patients in the clinical setting as required by clinical agencies. Students who do not comply with these screenings are ineligible for placement at clinical sites and are not able to successfully complete the DMS program. Students must also comply with the technical, health standards, and physical requirements considered essential for DMS students to achieve the level of competency required for graduation and practice of sonography as recommended by the Society of Diagnostic Medical Sonographers. These standards are incorporated in the DMS program application.

DMS Program Application address:

[http://www.bridgevalley.edu/sites/default/files/files/BridgeValley\\_Site\\_Files/Academics/Academics/Documents/DMS%20Program%20Application%20Fall%202015.pdf](http://www.bridgevalley.edu/sites/default/files/files/BridgeValley_Site_Files/Academics/Academics/Documents/DMS%20Program%20Application%20Fall%202015.pdf)



### **Nuclear Medicine Program, Associate in Applied Science**

The Nuclear Medicine Program is a selected admission program. Candidates must meet the admissions requirements listed below:

All candidates for the Associate in Applied Science degree in Nuclear Medicine Technology must be selected by the Nuclear Medicine Technology Screening Committee before entering the second year of the Nuclear Medicine Program. Application to the program can be made between **December 1st and February 28th**, if the student will be able to complete all of the first year courses prior to the end of the spring semester with a minimum GPA of 2.50. During this first year, the student should be establishing contact with the program director for advising and additional guidance. An informational meeting is held in March, once all applications are received. Two 4 hour observations at affiliated hospitals and a general portfolio are required prior to May interviews.

The following items shall be considered in the screening evaluation. The items are ranked and weighted in order of consideration.

#### **Criteria**

- Overall Nuclear Medicine (year one) GPA (2.50 minimum)
- Personal Interview by Screening Committee
- Observation/Shadowing
- Overall College Grade Point Average 2.0

### Nursing, Associate in Applied Science

The Nursing program is a selected admission program. Candidates must submit all documentation listed below:

#### **All persons seeking admission to the A.A.S. Degree Program in Nursing:**

1. Must be fully admitted to BridgeValley Community and Technical College. This includes the submission of ACT or SAT 1 scores, official high school transcripts or GED/TASC score reports and official transcripts from all previous colleges attended to the Admissions Office.
2. Must also submit a Nursing Program application to the Nursing Program by February 1 preceding the fall admission. These applications are available on the website, [www.bridgevalley.edu](http://www.bridgevalley.edu). Official copies of transcripts must accompany application to the Nursing Program; however, an official BridgeValley Community and Technical College transcript listing all previous college credit is acceptable.
3. Must take the TEAS-V Nursing Admissions Test and score a minimum score of 60.5.
4. Attend a Nursing Program Information Session (dates and times are on the website)

#### **High School Applicants (or those with less than 12 college credit hours):**

1. Must have a minimum of a 3.0 High School grade point average (GPA) or GED with 45 on all sub-scores.
2. Must have a minimum ACT composite score of 21 with a minimum score of 19 in all sub-scores or 1000 SAT I with 490 verbal and 480 math sub-scores.

#### **College Applicants (with 12 or more credit hours):**

1. Must have a minimum of a 2.50 cumulative GPA on all previous college credits.
2. Must be eligible for English 101 and Math 113.

Students should be aware that clinical agencies require students to pass a criminal background check and drug screen in order to have learning experiences in their facilities. Additionally, the West Virginia State Board of Examiners for Registered Professional Nurses requires graduates to be “of good moral character,” according to Chapter 30 of the West Virginia Code, in order to take the NCLEX licensing exam. This will require a criminal and traffic violation check. Other additional admission requirements, such as a screening interview, may be required. All students admitted must meet and be able to perform the Technical Standards of the Program.

### Respiratory Therapy, Associate in Science

The associate of science degree program in Respiratory Therapy is a cooperative program offered by Carver Career & Technical Education Center in Malden, WV and BridgeValley Community and Technical College. This is a limited enrollment program which admits one class of students each fall semester.

To be considered for admission, applicants must first meet one of the following minimum requirement options:

#### MINIMUM REQUIREMENTS:

##### Option 1

1. ACT composite of 20 or SAT composite of 950 or higher. ACT scores of: English 18, Math 19, Reading 17 OR SAT scores of: English 450; Math 460, Reading 420.
2. Accuplacer scores of: English 88, Arithmetic Math 85, Reading 79.  
(Students who do not meet the above scores must take and pass the appropriate math course with a grade of "C" or higher, as well as developmental English and/or reading.
3. Graduation with a high school diploma. High school GPA of 2.0 OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
4. One high school chemistry course and one other high school science course, both with a grade of C or higher.

##### Option 2

1. Twelve hours of college work at an accredited institution of higher learning within the past five years with a minimum grade of C in each course and a minimum overall GPA of 2.0. Courses cannot include developmental courses and must include chemistry at either the high school or collegiate level (with a grade of C or better).

#### In addition, both Options 1 and 2 require the following:

1. A one-page, handwritten essay detailing reason for application to the program.
2. Two letters of recommendation for admission into the program.

#### STUDENTS WHO MEET THE ABOVE QUALIFICATIONS ARE REQUIRED TO:

1. Complete and submit application forms for both Carver and BridgeValley CTC.
2. Submit either official ACT/SAT (may be on HS transcript) or Accuplacer scores.
3. Submit Official copies of all high school transcripts OR GED/TASC Diploma.
4. Submit Official copies of all college transcripts.
5. Submit Carver and BridgeValley application forms (must have both), ACT/SAT/Accuplacer scores, official transcripts, letters of recommendation, essay and the completed Respiratory Therapy Data Sheet to Carver Career and Technical Center, 4799 Midland Drive, Charleston, WV 25306 by February 28.

### **Veterinary Technology, Associate in Applied Science**

The associate in applied science degree program in Veterinary Technology is a cooperative program offered by Carver Career & Technical Education Center in Malden, WV and BridgeValley Community and Technical College. This is a limited enrollment program which admits one class of students each fall semester. To be considered for admission, applicants must first meet one of the following minimum requirement options:

#### **MINIMUM REQUIREMENTS**

##### **Option 1**

1. ACT scores of: English 18, Math 19, Reading 17 OR  
SAT scores of: English 450; Math 460, Reading 420 OR  
Accuplacer scores of: English 88, Arithmetic Math 85, Reading 79.  
(Students who do not meet the above scores must take and pass the appropriate math course with a grade of C or higher, as well as developmental English and/or reading.
2. Graduate with a high school diploma. High school GPA of 2.0 OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
3. One high school chemistry course and one other high school science course, both with a grade of "C" or higher.

##### **Option 2**

1. Twelve hours of college work at an accredited institution of higher learning within the past five years with a minimum grade of C in each course and a minimum overall PA of 2.0. Courses cannot include developmental courses and must include chemistry at either the high school or collegiate level (with a grade of C or better).

**In addition, both Options 1 and 2 require the following:**

1. A minimum of 20 hours of paid or volunteer experience working directly with animals (clinic, hospital, zoo, etc.), verified by a supervisor.
2. A one-page, typed essay entitled "Why I want to be a Veterinary Technician."

**STUDENTS WHO MEET THE ABOVE QUALIFICATIONS ARE REQUIRED TO:**

1. Complete and submit application forms for both Carver and BridgeValley.
2. Submit either official ACT/SAT (may be on HS transcript) or Accuplacer scores.
3. Submit Official copies of all high school transcripts OR GED Diploma.
4. Submit Official copies of all high school transcripts OR GED/TASC Diploma.
5. Submit Carver and BridgeValley application forms (must have both), ACT/SAT/ Accuplacer scores, official transcripts, proof of volunteer experience, essay, and the completed Veterinary Technology Data Sheet to: Carver Career and Technical Center, 4799 Midland Drive, Charleston, WV 25306 by February 28th.

## Admissions

Selection for the Veterinary Technology program is based on ACT/SAT/Accuplacer scores, high school/college coursework, GPAs and animal related experience. Department policies related to blood-borne pathogens, radiation safety, HIPAA and ethics are available for review at [www.bridgevalley.edu](http://www.bridgevalley.edu).

A large, stylized graphic of a green plant with several leaves, rendered in a flat, modern style. The plant is positioned on the left side of the page, with its leaves extending towards the center. The background consists of layered, wavy green shapes that create a sense of depth and movement.

# Financial Aid

# FINANCIAL AID INFORMATION

## EXPENSES /REFUNDS

### **PAYMENT OF FEES**

Students should be prepared to pay all tuition and fees through direct payment, financial aid, or other resources to complete registration or pre-registration. Direct payment may be made by cash, certified/cashier's check, money order, or credit card. BridgeValley offers two forms of payment plans to students; the sixty-forty plan, in which 60% of tuition is due at time of registration and 40% is due before the end of six weeks with a \$50 service fee, and a monthly plan through Tuition Management Services, in which students pay a small set-up fee, and then pay four or five monthly payments. For more information about our payment plans, please contact the Cashier's Office located in Room 012 on the South Charleston Campus and in Room 218 on the Montgomery Campus.

Certified/cashier's checks or money orders should be made payable to BridgeValley Community and Technical College. All payments sent by mail should include the student's name and B number.

Payments for books and supplies must be made separately from tuition and fees. Each student should be prepared to purchase textbooks and necessary supplies at the beginning of each semester. The average cost of books for a full-time student ranges from less than \$100 to more than \$200 per class, depending upon the course of study. The college cannot advance or lend money to students for textbook purchases.

All students are advised that the first payments received by BridgeValley will be applied to their accounts. Refunds will be processed only after obligations to BridgeValley have been satisfied.

### **TUITION AND FEES**

Tuition and fees are established annually by the BridgeValley Community and Technical College Board of Governors with secondary approval required by the West Virginia Council for Community and Technical College Education for tuition increases above 5%. Considerable effort is made to keep increases at a minimum.

A current "Schedule of Fees" is available at [www.bridgevalley.edu](http://www.bridgevalley.edu). This document will include the current tuition, mandatory fees, and any special instructional fees. Books, supplies, and other examination expenses are paid separately from BridgeValley charges. Students should consult their academic department for an estimate of these costs.

### **REFUNDS**

BridgeValley Community and Technical College refunds are processed through the Financial Affairs Office and are mailed or direct deposited through United Bank. All payments must be reflected on a student's account before a refund can be processed. Refund requests should be addressed to the BridgeValley Financial Affairs Office. Students are responsible for notifying BridgeValley of a change of address. This may be done in the Registrar's Office on the Montgomery Campus and in Student Services on the South Charleston Campus.

### **REFUND POLICY FOR STUDENTS WHO WITHDRAW**

A student who officially withdraws from college (i.e., drops all classes) through the Registrar's Office or is administratively withdrawn from college prior to completing 60% of a semester, is entitled to a partial refund of that semester's tuition/fees. Refund amounts are calculated to the day based on the number of calendar days which have elapsed from the first day of class to the date of withdrawal. The date of withdrawal is the actual date the student notifies the Registrar's Office of withdrawal. Any student who withdraws at any point during the semester is advised to consult with the Cashiers Office to determine whether there is a balance owing or a refund due.

For a student receiving federal and/or state financial aid who withdraws before completion of 60% of the semester, the amount of federal and/or state financial aid earned will be calculated to the day according to the same formula. **Unearned financial aid must be returned.** When aid is returned, the student may owe a balance to the College, to the US Department of Education, or to both. Any student receiving financial aid should contact the Financial Aid Office before withdrawing from college or reducing the number of hours enrolled to determine the impact of these actions on his or her financial aid status.

### **SPECIAL NOTICE**

Should conditions warrant, the administration reserves the right to adjust fees and charges without advance notice.

### **FINANCIAL SERVICES**

Students may submit payment to the BridgeValley Cashiers Office, located in Room 012 on the South Charleston Campus and in Room 218 on the Montgomery Campus.

### **DELINQUENT ACCOUNTS**

BridgeValley Community and Technical College will not issue a degree, transcript, or a grade report to any student who has a delinquent account. A delinquent student will not be readmitted to the college until all balances due are paid.

### **FINANCIAL ASSISTANCE FOR STUDENTS**

The purpose of BridgeValley Community and Technical College's financial assistance program is to provide assistance to qualified students who, without such aid, would be unable to attend college. Assistance is awarded on the basis of need as determined through the Federal Needs Analysis System. All students seeking financial aid are required to complete an online Free Application for Federal Student Aid (FAFSA) each year to be processed by the U.S. Department of Education. The FAFSA is an application for the following Title IV federal aid programs: Pell Grant, Federal Supplemental Education Opportunity Grant, Federal Work Study, Federal Direct Subsidized Student Loan, Federal Direct Unsubsidized Student Loan and Parent PLUS Loan.

### **FINANCIAL AID PROGRAMS**

Students interested in applying for financial aid must complete the FAFSA. The application is submitted online at: [www.fafsa.gov](http://www.fafsa.gov).

**The BridgeValley school code is 040386.**



If financial assistance is needed for more than one year, **new applications must be submitted annually.** (General instructions for completing the FAFSA follow this section.)

The financial aid awarded to students is based on individual financial need and eligibility, and may include a combination of various types of aid. Financial Aid packages are intended to provide assistance in paying tuition, fees, books, supplies, room, board, transportation, and personal expenses. Financial Aid is available to both full and part-time students.

Financial Aid primarily comes in four basic types:

- **Scholarships:** Gift aid, based on academic performance or talent in a specific category, with many programs also having need requirements.
- **Grant Programs:** Gift aid, money which is not repaid, usually requires need.
- **Employment:** Money earned through employment during college.
- **Low-Interest Loans:** Money which must be repaid.

### SCHOLARSHIPS

A variety of scholarships are available to students. Scholarship awards are based on high academic performance in high school and/or college, financial need, or a combination of need and academic performance. Each scholarship is awarded on the basis of the specific criteria established. All scholarship applicants, who minimally meet the requirements, will be considered for the award: all relevant factors are taken into consideration, and awards do not automatically go to the applicants with the highest cumulative GPA. For more information on available scholarships, visit [www.bridgevalley.edu](http://www.bridgevalley.edu).

### INSTITUTIONAL TUITION WAIVERS

Student tuition waivers are used in the case of extenuating circumstances. Criteria and amount of awards are based on the situation and award type. Tuition waivers will only be considered for students who are not currently receiving a Promise Scholarship or a West Virginia Higher Education Adult Part-Time Student (HEAPS) grant. In addition, students must be in good academic standing (usually GPA of 2.25 or higher) and meeting the Satisfactory Academic Progress guidelines established by the Financial Aid Office. A tuition waiver must be used for certificate or associate degree coursework and is limited to up to 12 (twelve) hours per semester (base tuition) at the in-state rate. In general, tuition waiver awards will not be used to cover books, lab fees, extra fees or other expenses. Enrollment must be maintained in consecutive semesters; should a student withdraw from BridgeValley while receiving the award, the award is nullified and no longer available for subsequent semesters.

### GRANTS

- **Federal Pell Grants:** This program provides annual grants to students. Only undergraduate students are eligible for consideration. Students may apply directly to the Federal Government by using the Free Application for Federal Student Aid (FAFSA). The maximum amount one can receive from this grant is determined by Congress each year. Financial need is the major determinant of eligibility in this program.
- **Federal Supplemental Educational Opportunity Grant (FSEOG):**  
This program provides annual grants to undergraduate students with financial need. FSEOG award is based on enrollment status.
- **Higher Education Adult Part-Time Student Grant Program (HEAPS):**  
This program is available to part-time undergraduates who have financial need with a minimum GPA of 2.00 and are a West Virginia resident. This grant is tuition-based and cannot be used for the purchase of books, supplies or any other additional costs.
- **West Virginia Higher Education Grant Program:**  
This program is administered by the West Virginia Higher Education Policy Commission and is available to those West Virginia students who demonstrate financial need, academic ability and complete the FAFSA by the respective deadline.
- **Other State Programs:**  
For additional state aid programs please visit [www.cfwv.com](http://www.cfwv.com) .

### ON-CAMPUS EMPLOYMENT

#### Federal Work-Study Program (FWS)

- Federal Work-Study is federally-funded financial aid which provides paid work experience as part of the financial aid package. Students must complete the FAFSA, a Federal Work-Study Application and submit a current resume to the Financial Aid Office to apply for this program. FWS is designed to stimulate and promote part-time employment to help defray college expenses. All government guidelines must be met to participate in this program. Like other aid programs, Federal Work-Study is based on financial need. To participate in this program, students must be enrolled for 6 hours or more credit hours per semester and have a cumulative GPA of 2.00. Students may be employed up to 20 hours weekly while enrolled in classes. The current rate of pay is determined by the Financial Aid Office. All funds are based on availability.

### LOANS

#### ➤ **Federal Direct Student Loan**

Students who do not qualify for other Financial Aid programs or if additional funds are needed, students may apply for a Federal Direct Student Loan. Students must complete the Free Application for Federal Student Aid prior to applying for a Federal Direct Student Loan.

- The maximum loan amount that can be borrowed is set by the federal government for an undergraduate student; however, the amount in any year may not exceed educational costs as certified by the Financial Aid Office, less other financial aid received. When students decide to apply for a Federal Direct Student Loan, the Financial Aid Office can advise on how to complete the application. Students must be enrolled at least half-time to qualify for a Federal Direct Student Loan.

#### ➤ **Federal PLUS Loans**

The Federal PLUS Loan program enables parents, with good credit histories, to borrow the educational expenses of each child who is a dependent, undergraduate student, enrolled at least half-time. Repayment of the principal amount of the loan begins within 60 days after the final loan disbursement.

### **A word of caution about loans:**

A loan is money borrowed and **MUST** be repaid under the terms specified in the Master Promissory Note (MPN), which is signed by the student prior to receiving the first loan disbursement. Before signing the MPN, students should fully understand all rights and responsibilities relative to any loan borrowed.

### **Repaying a Loan**

Loan repayment begins six months after graduation, or cease of half-time enrollment. Repayment must be completed within ten years under the standard repayment plan. The Financial Aid Office will provide information concerning other repayment and deferment options.

In general, the details of repayment are included in the loan description. The terms of the loan will be explained when signing the Master Promissory Note. In addition, before leaving school, for whatever reason, an exit interview will be required. Contact the Financial Aid Office or visit [www.studentaid.ed.gov/repay-loans](http://www.studentaid.ed.gov/repay-loans) for more information.

### **OTHER FORMS OF FINANCIAL ASSISTANCE**

#### **VETERANS ASSISTANCE**

Financial assistance is available to veterans who qualify through the Veteran's Administration. Visit [www.gibill.va.gov](http://www.gibill.va.gov) or our website for additional details and information.

**To start the process to apply for benefits**, students need to complete the application for VA Education Benefits at: [vabenefits.vba.va.gov/vonapp/main.asp](http://vabenefits.vba.va.gov/vonapp/main.asp). Once approved, the Veterans Administration will send a "Certificate of Eligibility" to the student which will need to be submitted to BridgeValley's VA Certifying Official.

### Description of Benefits

- Post 9/11 GI Bill/Chapter 33: The Post-9/11 GI Bill is for individuals with at least 90 days of aggregate service after September 11, 2001, or individuals discharged with a service-connected disability after 30 days. Students must have received an honorable discharge to be eligible for the Post-9/11 GI Bill. The Post-9/11 GI Bill will become effective for training on or after August 1, 2009.
- Montgomery GI Bill/Chapter 30: Chapter 30 is for individuals, active duty or non-active duty, who have served in the United States Armed Forces for a minimum period of two to four years and have been HONORABLY discharged prior to returning to school.
- Montgomery GI Bill/Chapter 1606: Chapter 1606 is for individuals in selected reserve who have completed Basic Training and AIT and are now assigned to a Reserve and/or West Virginia National Guard Unit. Students must submit a DD214 and NOBE (Notice of Basic Eligibility). The NOBE is available from the assigned unit.
- Montgomery GI Bill Chapter 1607: Chapter 1607 is known as the Reserve Educational Assistance Program (REAP) and is for individuals called or ordered to active duty in response to war or national emergency (Contingency Operation) as declared by the President or Congress. This program makes certain reservists, who are activated for at least 90 days after September 11, 2001, either eligible for education benefits or eligible for increased benefits.
- VA Vocational Rehabilitation/Chapter 31: Chapter 31 is for disabled Veterans and individuals must submit an application with a VA case worker and disabilities must be rated. Veterans Certifying Official will receive Authorization and Certification of Entrance or Re-Entrance into Rehabilitation and Certification of Status.
- Survivors' and Dependents' Educational Assistance Program/Chapter 35: Chapter 35 is for dependents and spouses of 100 % disabled or deceased Veterans. Individuals must complete Form 22-5490 and submit all information to the Department of Veterans Affairs. Once a claim is established, a Certificate of Eligibility will be issued to the dependent/spouse.
- Yellow Ribbon: Those receiving the maximum benefit from the Post 9/11 GI Bill can receive additional funding to cover the difference between in-state and out-of-state tuition and fees. BridgeValley Community and Technical College has agreed to waive 50% of this difference, and the Veterans Administration will pay the remaining balance. This means that those students eligible for the maximum Post 9/11 GI Bill should not have to pay any tuition and fees out-of-pocket.

Work-Study Program: All students eligible for Chapter 30, 31, 35 and 1606 benefits are eligible to apply for VA Work Study. Required forms can be found at: [www.vba.gov/VBA](http://www.vba.gov/VBA).

Reserve or National Guard Tuition Assistance

Apply for the WV National Guard assistance at [www.guardtuition.com](http://www.guardtuition.com).

Apply for the Army Reserves at [www.goarmy.com](http://www.goarmy.com)

### VOCATIONAL REHABILITATION

Students with a disability may be eligible for vocational rehabilitation benefits through the West Virginia Division of Rehabilitation Services. Contact a local vocational rehabilitation office for more information and an application.

### **WIA**

BridgeValley Community and Technical College participates in the Workforce Investment Act Program which provides significant financial and counseling support for youth and adults having the desire to pursue an associate degree. Candidates must meet eligibility requirements under WIA and satisfy admission requirements.

### **APPLY FOR FINANCIAL AID**

#### **FILING THE FREE APPLICATION FOR FEDERAL STUDENT AID (FAFSA) ONLINE**

Documentation needed to file the FAFSA online can be found at: [www.fafsa.gov](http://www.fafsa.gov) . From this site, students may apply for a FSAID, download a FAFSA worksheet, file the FAFSA on the Web, and receive follow-up information.

Federal PINs may be retrieved at, [www.pin.ed.gov](http://www.pin.ed.gov) , by requesting a duplicate PIN and clicking “submit now”.

To insure the timely processing of Financial Aid, it is imperative that students:

- file early
- be accurate
- meet deadlines
- check myBRIDGE and BridgeValley campus e-mail accounts for important notices

### **NEED DETERMINATION**

BridgeValley awards financial aid to eligible students after applications and all documentation has been processed. For most programs, determining eligibility also means determining who has financial need.

A uniform, national needs analysis system is used by BridgeValley to determine eligibility and probable amounts of need, based on information which the student (and parents or spouse, if applicable) provides on the Free Application for Federal Student Aid. The family’s income, number of dependents, etc., are taken into consideration, and the potential family contribution is determined. Income levels do not automatically exclude students from all aid consideration.

### **DEADLINES**

As application deadlines vary by program, students are encouraged to complete the FAFSA as soon as possible after January 1, to allow time for processing prior to deadlines.

The following deadline dates are established for Federal Aid programs:

Fall Awards	June 30
Spring Awards	November 21
Summer Awards	April 30

Please refer to the financial aid section of [www.bridgevalley.edu](http://www.bridgevalley.edu) for any changes to these deadlines.

Students must have the FAFSA and all required documentation submitted to the Financial Aid Office prior to the above deadlines. Students, who fail to do so, should be prepared to cover all college expenses from their own resources, until such time as their application is complete and financial aid has been awarded.

Applications will be accepted at any time throughout the year.

### **RECEIVING YOUR AWARD**

Awards are determined by the Financial Aid Office. All awards are available on a secure web site, myBRIDGE. The Award from the Financial Aid Office specifies the program(s), the amount of the award, and the periods during which assistance will be provided.

### **RETURN TO TITLE IV FUNDING**

Financial Aid recipients who withdraw from BridgeValley before 60% of the semester has been completed, may be required to repay a portion of the federal and state aid received. Repayments are based on the number of days a student has been enrolled in classes.

## **STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR STUDENTS RECEIVING FINANCIAL AID**

### **SATISFACTORY ACADEMIC PROGRESS**

To receive financial aid administered by BridgeValley Community and Technical College, students must be making satisfactory academic progress (SAP) toward completion of an eligible degree. For this reason, students' SAP for financial aid is calculated each semester to verify they have met all standards. Federal regulations require academic progress be evaluated both quantitatively and qualitatively. Students receiving assistance from any of the following aid programs must meet **ALL** the standards of Satisfactory Academic Progress:

- Pell Grants
- Supplemental Educational Opportunity Grants (SEOG)
- Federal Work-Study Programs (FWS)
- William D. Ford Federal Direct Loan (DL) Program including:
  - Subsidized Loans
  - Unsubsidized Loans
  - Parents' Loan for Undergraduate Students (PLUS) Programs
- West Virginia and other State Grant and/or Scholarship Programs

### **EVALUATION INCREMENTS**

Students may be allowed to receive financial aid for an academic year; however, Satisfactory Academic Progress is evaluated at the end of each semester.

## COMPONENTS

Standards of Satisfactory Academic Progress include Cumulative GPA, Completion Ratio, and Maximum Hours.

### Associates Degree

Hours Attempted	Cumulative GPA	Completion Ratio
0-29	1.50	50%
30-44	1.75	58%
45+	2.00	67%

### Certificate Degree

Hours Attempted	Cumulative GPA	Completion Ratio
0-15	1.75	60%
16+	2.00	67%

**Note:** The Financial Aid Office will use the GPA as reported in the Banner Student System. The GPA used in calculating Satisfactory Academic Progress must include credits that may not be calculated in an academic GPA, examples including but not limited to, developmental courses, academic forgiveness, transfer credits, etc.

## MAXIMUM HOURS

Federal regulations require a maximum time frame for completion of a degree or certificate. A student will not be eligible for Title IV federal aid if the degree is not completed within 150% of the normal credit hours required to complete the degree or certificate program. Financial Aid will be suspended for students who have attempted 90 or more credit hours for a two year degree or 45 credits for a certificate. The number of attempted credits in determining maximum timeframe will include transfer, remedial, failed and withdrawn credits.

If a student changes their course of study, the hours attempted under all courses of study are included in the calculation of the maximum time frame. The Financial Aid Office will review a student's eligibility at the end of each semester and will notify students if he/she will no longer be eligible for federal aid programs (grants and loans) for any future semester.

If a student has previously completed an associate degree, or a bachelor degree, all financial aid will be suspended and the student has the right to submit an appeal and must submit an academic evaluation to the Financial Aid Office.

If a student has met all requirements to receive a degree in his or her stated major, the student must apply for graduation. Change of major is not an option. Refusal to graduate in the intended major will result in financial aid suspension.

Students who have exceeded maximum hours are limited to 2 major changes. Students are permitted to change majors at any time; however, this may result in financial aid suspension.

### IMPORTANT NOTE

- ❖ Withdrawal, academic forgiveness, incomplete, repeated and non-credit remedial hours are counted for the calculation of hours attempted and GPA. In cases of repeated courses, a student may continue to repeat a failed course and receive Financial Aid until it is passed.
- ❖ A student, who has exceeded the maximum hours for his or her major, may not receive Financial Aid to repeat courses on the academic evaluation that are failed or withdrawn.
- ❖ Students may only attempt 30 semester hours of developmental (remedial) courses. Once a student has reached the 30 semester hour limit, Financial Aid may not be used to pay for further developmental (remedial coursework), new or repeated.

A student is eligible to receive Financial Aid for one repeat when repeating a previously passed course to obtain a higher grade.

1. **Allowable:** Repeated coursework may be included when determining enrollment status in a term-based program if a student needs to meet an academic standard for a particular previously passed course, such as a minimum grade.
2. **Not permissible:** A student enrolls in four classes in the fall semester and passes only three of them; the institution requires the student to retake the failed class and also the other three classes because of failing the one class. When the student repeats all four classes in the spring semester, the failed class would be included in the student's enrollment status, but the three classes passed would not be.

### TRANSFER AND READMISSION

Students who transfer into BridgeValley Community and Technical College in the fall or spring term with one or more semesters of classes and who do not meet the satisfactory academic progress requirements will be automatically placed on financial aid suspension and must appeal the suspension. Students seeking readmission to BridgeValley Community and Technical College in the fall or spring term and who do not meet the satisfactory academic progress requirements will be automatically placed on financial aid suspension and must appeal the suspension.



Transfer and readmission students who have completed one semester of classes prior to entering or re-entering BridgeValley Community and Technical College will be required to submit a financial aid appeal if they:

1. Are on academic suspension with the Vice President of Academic Affairs' Office
2. Have exceeded the maximum hours

### TRANSIENT

Transient students should seek financial assistance from their home school.

### FIRST TIME FRESHMAN STUDENTS

First time freshman students will be awarded financial aid, providing they are in good academic standing and meet all eligibility requirements to receive federal and state funds.

### PROVISIONAL ADMISSIONS

Students who have a provisional admissions status will not be granted Financial Aid until fully admitted to the college.

### STUDENTS WHO DO NOT MEET ACADEMIC PROGRESS STATUS OF NON-COMPLIANCE

1. **Suspension Status** - Students are placed on financial aid suspension status after one semester. Students on suspension cannot receive Financial Aid. Students will be removed from Financial Aid suspension and/or probation when in compliance with the GPA and Hours Passed rules. Students cannot exceed the maximum hours allowed.
2. **Probation Status** - Probation status is granted to students who have successfully appealed. Students can receive aid during their probationary period after signing and submitting a financial aid appeal Contract to the Financial Aid Office.
3. **Warning Status** - Warning status may be granted to students with extenuating circumstances (i.e.: A student who was forced to withdraw due to an accident or illness. Appropriate documentation must be provided.).
4. **Maximum Hours Evaluation Status** - Maximum Hours Evaluation status is granted to students who have successfully appealed. Students can receive aid during this period after signing and submitting a financial aid appeal contract to the Financial Aid Office.

### APPEAL PROCESS

Students may submit documented reasons to the Financial Aid Office for failure to maintain satisfactory academic progress. The academic progress requirements may be waived based on written procedures below. Any appeals granted must be well documented as they would otherwise be violations of federal standards.

### REQUEST TO APPEAL SATISFACTORY ACADEMIC PROGRESS SUSPENSION

Waivers or appeals may be decided by the Director of Financial Aid or their designated representative in Financial Aid. The following documentation must be submitted to the Financial Aid Office:

- Appeal Form and Academic Plan for Improvement
- Letter of Extenuating Circumstances
- Supporting Documentation

### DEADLINES FOR APPEALS

Students planning to appeal should appeal as soon as they are notified of their financial aid suspension. Tuition and fees are due by the specified date set by the Financial Affairs Office each term. In order to avoid difficulties involved in late payment of tuition and fees, students should submit the appeal promptly and observe the deadline dates.

For an appeal to have meaning, the appeal must be granted in time to allow the student's award to be processed before grades are released for that semester. In addition, student loans cannot be processed after October 25th for the fall semester and March 25th for the spring semester. Federal regulations require that once the standing of a student is known, then the award must reflect that information. Thus, a student granted an appeal before the end of the semester and awarded after the end of the semester may become ineligible for the award by the time the award is granted. Financial aid appeals cannot be retroactive.

### APPEAL PROCEDURES

The student must submit a Financial Aid Suspension Appeal Form to the Financial Aid Office, using the official college Appeal Form, and include documentation to support the reason for granting an appeal.

Appeals cannot be processed if the student is placed on Academic Suspension with the Vice President of Academic Affairs' Office.

The Satisfactory Academic Progress standing can be appealed when one of the following conditions exists:

- Illness or injury of the student
- Illness, injury, or death of a family member
- Natural Disasters i.e.: floods, fires, tornadoes, hurricanes, or earthquakes
- Criminal acts inflicted on the student or student's family. For example: terrorism, kidnapping, or theft
- Military involvement i.e.: draft or US service duty
- Emotional problems supported by documentation from a counseling agency, counselor or psychiatrist
- Documented errors of an official designated representative of the Vice President of Academic Affairs resulting in unacceptable academic progress
- Legal entanglements i.e.: divorce, child custody, extended jury duty or bankruptcy

**Students will be informed within fifteen (15) business days of the appeal decision once all documents are received.**

### PROOF OF ATTENDANCE

#### ATTENDANCE REPORTING

Schools are required to verify that a student began attendance in all classes before financial aid awards can be paid to a student account or directly to a student. If the student begins attending some but not all, classes a school must recalculate federal financial aid to reflect the actual enrollment.

Students who do not begin attendance are not eligible to receive federal financial aid. Attendance is monitored throughout the semester. Students who stop attending their classes will be processed as an unofficial withdraw and subject to return or unwarned financial aid funds.

### **PROOF OF ATTENDANCE**

Once the data is collected and a student is identified as not attending, then a Proof of Attendance (or POA) requirement will be established in Banner and a “bad” academic progress code will be posted to their student record until such time as a student can verify attendance. POA forms will require students to obtain signatures of all faculty members for all classes in which they are registered. Students taking online classes may route an electronic form for faculty signature. The student must attend one full week’s worth of classes before faculty sign the POA form. Once the student provides the signed POA form to the Financial Aid Office, the POA requirement will be satisfied (in Banner), the academic progress code changed to the previous code and the student’s aid disbursed. Students who have not satisfied POA will be dropped for non-payment and removed from class rosters. Students not on class rosters will not be permitted to attend class, nor will they be permitted to reinstate their classes.

### **RIGHTS AND RESPONSIBILITIES OF AID RECIPIENTS**

#### **WHAT ARE STUDENT RIGHTS AND OBLIGATIONS?**

As consumers of a commodity (financial aid for higher education), students have certain rights to which they are entitled, and certain obligations for which they are responsible. Students have the right to know:

- What financial assistance is available, including information on federal, state, and institutional financial aid programs.
- The deadlines for submitting applications for the financial aid programs available.
- The cost of attending BridgeValley and BridgeValley’s refund policy.
- The criteria used by BridgeValley to select financial aid recipients.
- How BridgeValley determines your financial need.
- What resources (such as parental contribution, other financial aid, your assets, etc.) are considered in the calculation of financial need.
- How much financial need, as determined by BridgeValley, has been met.
- The policy governing inclusion or exclusion of programs comprising a financial aid package. If students believe they have been treated unfairly, they may request reconsideration of their award.
- What portion of the financial aid received is loan aid and what portion is grant aid. If the aid is a loan, students have the right to know what the interest rate is, the total amount that must be repaid, the repayment procedures, the length of time given to repay the loan, and when repayment is to begin.
- How BridgeValley determines whether students are making satisfactory progress and what happens if they are not.

### CONSUMER RESPONSIBILITIES OF AID RECIPIENTS

It is the student's responsibility to:

- 1) Review and consider all information about BridgeValley before enrolling.
- 2) Pay special attention to and accurately complete the Free Application for Federal Student Aid. Errors can result in long delays in receiving financial aid. Intentional misrepresenting of information on application forms for Federal financial aid is a violation of law and is considered a criminal offense, subject to penalties under the U.S. Criminal Code.
- 3) Complete and return all additional documentation, verification, corrections, and/or new information requested by the Financial Aid Office
- 4) Read all forms prior to signing and keep copies of them.
- 5) Accept responsibility for all agreements signed.
- 6) Notify Financial Aid Office of changes in name, address, or enrollment status. (This also applies to loan recipients after leaving BridgeValley.)
- 7) Perform the work that is agreed upon in accepting a Federal Work-Study award.
- 8) Know and comply with the deadlines for application or reapplication for aid.
- 9) Know and comply with BridgeValley refund procedures.
- 10) Notify the Financial Aid Office in advance when enrollment is less than 6 hours. Failure to do so will cause a delay in the receipt of funds.
- 11) Notify the Financial Aid Office if receiving other financial assistance. Failure to do so can result in the termination of financial assistance.
- 12) Maintain satisfactory academic progress. Withdrawal from BridgeValley or never attending classes will result in termination of financial aid and may result in partial or full repayment of aid disbursed for the semester involved.

### FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act of 1974 is a Federal law which states that:

- A written institutional policy must be established; and
- A statement of adopted procedures covering the privacy rights of students be made available.

The law provides that the institution will maintain confidentiality of student education records.

A student may give permission to another party or individual to act as a representative in matters concerning Federal Title IV Financial Assistance. A copy of the form may be obtained from the Office of the Registrar. No information pertaining to a student's educational record, including financial aid, will be released to a third party without the completion of this form.



# Student Services

# Student Services

## **ADULT EDUCATION LEARNING CENTERS**

BridgeValley provides an Adult Education Learning Center (AELC) in collaboration with the West Virginia Department of Education, Office of Adult Education & Workforce Development at each campus location. The AELC on the South Charleston campus is located in room 029 Main Hall, and the AELC on the Montgomery campus is located in room 401 Davis Hall. The AELC provides assistance with skill-building in the areas of math, reading, and language arts. The staff administers assessments to help students gauge their own strengths and weaknesses. In the AELC, students gain proficiency in critical reading, thinking, writing and computation for college-level coursework and tests such as the TASC (high school equivalency exam), ACCUPLACER, ACT, ASVAB, TEAS V Nursing Entrance Test, and PPST. The AELC also helps students to deal with test anxiety, develop better study habits, manage time more effectively, set short-term goals in order to achieve long-term objectives, and become independent learners. Students can also find help with career exploration and career pathway building.

## **BOOKSTORE**

BridgeValley partners with Follett to provide bookstore services for its students. This online company sells new, used, and rental textbooks as well as various campus supplies. For more information, visit the BridgeValley website or stop by the Division of Student Affairs in Main Hall on the South Charleston campus or in Davis Hall in Montgomery.

## **CAMPUS POLICE**

Safety of our students, faculty, staff, and visitors is a top priority at BridgeValley Community and Technical College. Campus Police works diligently to ensure a safe work and academic environment for the BridgeValley community. Administration and the Campus Safety Committee have implemented several services that will allow everyone to play a vital role in security on campus. In addition, there are campus police officers to assist students in the parking areas and in other helpful ways around campus. For all emergencies, including medical, you should first call 911. Remember when calling from a campus phone you will need to dial the number 9 for an outside line. All other non-emergencies, contact the campus police department.

**SEE SOMETHING SAY SOMETHING!**

## **CAREER SERVICES**

Career Services offers many services to students including on-line career search and employment opportunities; announcements of available full-time, part-time, internship, and seasonal positions; and on-campus career fairs and workshops.

### **CLUBS AND ORGANIZATIONS**

BridgeValley Community & Technical College recognizes a variety of student clubs and organizations. These organizations cover a broad range of interests that include leadership, professional, religious, academic honorary, social and special interest. Students may also petition to the Student Government Association to organize a club or organization. For a full list of recognized student club and organizations, please contact the Student Government Association or the Division of Student Affairs.

### **COUNSELING SERVICES**

The College counselor serves as a student advocate and as a resource for students in crisis. Students who have on-going, long-term, or therapeutic needs are referred to community agencies for assistance. The counselor maintains a list of available community providers for professional testing, counseling, and alternative support services.

### **DISABILITY SERVICES**

Consistent with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), BridgeValley ensures that individuals with disabilities are afforded an equal opportunity to participate in its academic programs, student activities, and all other events sponsored by the College. Students shall be provided reasonable accommodations based on the recommendations made by a licensed health care professional who is qualified to diagnose the impairment. A student with a physical, learning, emotional, or temporary disability must provide documentation verifying a disabling condition which impacts the function of a major life activity. No accommodations will be provided without proper documentation that is outlined in the Disability Services Student Handbook, which can be found on the BridgeValley website.

### **LIBRARY SERVICES**

BridgeValley has an online library that is designed to support the information, curriculum, and research needs of all students, faculty, and staff. BridgeValley provides access to multiple web-based periodical and eBook databases with access to full text articles and reference books. These materials can be accessed on campus or from home with an individual's B number. Questions about finding materials or need research help? The librarian and library staff can get you started with a research project, narrowing a search, evaluating sources, and creating citations. The librarian also provides a variety of information literacy services including, but not limited to, Orientation/Instruction on how to use the online resources. The Ask a Librarian chat service, where a live librarian is available to answer your questions, is available to all during staffed library hours. The library webpage provides links to databases & web resources and hours are posted at the beginning of each semester.

### **STUDENT ACTIVITIES**

Campus involvement, whether it is participating in a research project, attending an off-campus event or engaging in welcome back week, is an important part of the college experience. Involvement assists in the intellectual, personal and social development of a student. BridgeValley strives to connect students, student organizations, faculty and staff to their campus community.

The Division of Student Affairs serves student organizations and their members by enhancing their experiences both in and out of the classroom. BridgeValley strives to have an active and engaged community that promotes leadership development, encourages community involvement, and life-long learning.

### **STUDENT CODE OF CONDUCT**

BridgeValley expects that every member of its community share its commitment to honesty, integrity, and the search for the truth. In addition, BridgeValley Community and Technical College is concerned with the social and learning environment of all its students. It is expected that each person will grow to have greater respect for self, others, and property. For a complete explanation of student rights and responsibilities, students should consult the Student Code of Conduct which can be found on the BridgeValley website or in the Division of Student Affairs.

### **STUDENT GOVERNMENT ASSOCIATION**

The Student Government Association (SGA) of BridgeValley serves as an intermediary between the administration and the student body in matters of general welfare, promotes a spirit of cooperation in the activities of the College, and encourages student initiative. The SGA is governed by an established constitution with officers elected by the student body. For more information, visit the BridgeValley website or stop by the Division of Student Affairs.



### **STUDENT SUCCESS CENTER**

BridgeValley provides a Student Success Center (SSC) at each campus location. The SSC on the South Charleston campus is located in room 031 Main Hall, and the SSC on the Montgomery campus is located in room 401 Davis Hall.

Services provided:

- Peer Tutors
- Faculty Tutors
- Group and One-on-One Tutoring
- Tutoring by Appointment
- Computer Services
- Accuplacer Testing
- CLEP Testing
- TEAS V Testing
- Corporate Testing

**Walk-ins are welcome & encouraged!**

### **VETERANS AFFAIRS**

BridgeValley is approved by the WV Higher Education Policy Commission's State Approving Agency for enrollment of veterans and dependents of deceased or 100% disabled veterans eligible for education benefits under current regulations. Those serving in the Army or Air National Guard or those on Active Duty or service in a Reserve Unit may also qualify for educational assistance. The Division of Student Affairs serves as the official institutional contract point for military and veterans' programs and services.

For more information, students should contact the Division of Student Affairs.



# Workforce and Economic Development Division

DEVELOPMENT DIVISION

### **WORKFORCE AND ECONOMIC DEVELOPMENT DIVISION**

Preparing a skilled labor force is a priority and focus of BridgeValley Community and Technical College Workforce and Economic Development Division (BridgeValley WEDD). BridgeValley WEDD delivers workforce development by aligning education and training with employer needs and economic development initiatives that follow:

1. Deliver customized credit or non-credit programs in nontraditional time frames and locations;
2. Implement cooperative-education programs;
3. Increase the innovative use of technology to deliver technical education;
4. Deliver training programs that document achievement of professional certification standards in noncredit or credit formats;
5. And, enable progression from skill sets, certifications, certificates of applied science to associate in applied science degrees for Occupational and Technical Studies programs.

BridgeValley appreciates lifelong education and is responsive to adults who wish to achieve educational and career goals. The Workforce and Economic Development Staff designs programs, services, and delivery systems to present comprehensive educational opportunities, based on the capabilities of BridgeValley full-time and adjunct faculty. We serve independent learners and adults associated with business, industry, labor unions, governmental and educational agencies, and non-profit organizations in our six county service region of Clay, Fayette, Kanawha, Nicholas, Putnam, and Raleigh Counties.

#### **Associate in Applied Science in Technical Studies & Certificate in Applied Science in Technical Studies**

The Associate in Applied Science and Certificate in Applied Science programs in Technical Studies are designed to provide for cooperatively sponsored educational opportunities leading to associate degrees for employees/students participating in quality education and training programs sponsored by business, industry, labor, or government, or other education agencies hereafter referred to as employers or agency. Required components in the program include general education and 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.

A model curriculum, together with the components and allowable credit hours, is available upon request. Negotiated courses of study will be in conformity with this model.

#### **USDOL/BAT Registered Apprenticeship Programs**

##### **Apprenticeship Programs for Adults**

BridgeValley Community and Technical College cooperates with the USDOL/BAT in granting college credits to persons who complete registered apprenticeship programs leading to the USDOL Journeyman Certificates and additional college courses, and delivers training to support an organization's apprenticeship program, which together meet the requirements for the A.A.S. in Occupational Development. College courses are offered and taught by BridgeValley Community and Technical College faculty at the employees' work site or at the Montgomery or South Charleston campus.

### **Associate in Applied Science & Collegiate Certificate in Occupational Development**

BridgeValley will negotiate with local the Registered Apprenticeship Program (RAP) to create sponsored degree program curricula which includes student learning in three components: general education, classroom occupational training, and OJT occupational training. A minimum amount of general education is prescribed. The amount of classroom occupational training will be determined in large part by the number of classroom contact hours in the 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 college student record.

A model curriculum, together with the components and allowable credit hours, is available upon request. Negotiated courses of study will be in conformity with this model. Possible examples include, but are not limited to, childcare workers, cooks, building and construction trade's workers, chemical technology, plumbing and pipe fitting technology, and electrical and electronic technology.

### **Principal Programs and Services**

The following are the principal programs, and services, of continuing education in the BridgeValley WEDD. They are delivered in traditional classroom formats, online formats, or a blend of both traditional and online.

#### **College Preparation**

College Preparation serves not only to improve the performance on placement exams but also prepare students for entry into college and other learning settings. For a listing of college preparation courses see Non-credit workshops below.

#### **Community Service**

Community Service includes a variety of non-credit activities and programs that meet the needs and interests of adults and youths and focus on issues and problems of the community. The following are examples of community service partners of BridgeValley WEDD: Goodwill Industries of Kanawha Valley; Kanawha Institute for Social Research & Action, Inc.; and, Kanawha Literacy Coalition with RESA III Kanawha County Adult Basic Education, Human Resource Development Corporation, Workforce Investment Boards Regions 1, 2, 3, & 4, and the Charleston Job Corps Center. BridgeValley WEDD partners with these and other organizations to assist in the delivery of entry-level employment skills to unemployed or underemployed individuals.

#### **Contract Classes**

Contract Classes are BridgeValley courses offered for adult learners at convenient locations such as work sites, local high schools, and other accessible community meeting facilities that are suitable for instruction. The courses may bear academic credit, or may be offered not for academic credit. Contract courses are taught by qualified full-time and part-time faculty and, if taken for credit, can be used to meet degree requirements should a learner decide to matriculate. Courses are delivered year-round, depending on employer/employee need and sufficient enrollment. Contract courses typically meet during a non-traditional semester and include the same number of instructional contact hours and academic content as courses presented on campus.

### **Credit Equivalency Units**

Successful completers may, with prior approval, receive Credit Equivalency Units (CEUs) for professional development purposes. Some non-credit workshops have a vocational or recreational purpose and completers are not awarded CEU's for their participation because these courses are for personal enrichment.

### **Non-credit to Credit Conversion**

Consistent with authority granted in the West Virginia Council for Community and Technical College Education Series 3, non-credit students may elect to have their non-credit training converted to credit and placed on their academic transcript. Certain non-credit workforce courses will be deemed worthy of credit using the rule established in WVCTCS Series 3. The chief academic officer of the community and technical college or designee approves the actual awarding of college equivalent credit.

All students must complete BridgeValley admission requirements regardless of their intent to seek college credit. All non-credit students wishing to enroll in any of the courses which have been deemed worthy of credit will be initially admitted to BridgeValley as a non-degree seeking student and registered in the non-credit section of the course. Non-credit students will not have to submit transcripts to the Student Services Admissions staff, until the student desires to apply for academic financial aid, or when she/he changes her/his non-degree seeking status to identify a degree for which she/he wishes to pursue. If a student has a military transcript, BridgeValley faculty and staff will determine if prior learning or competency has been documented will evaluate that transcript. If a military transcript verifies applicable prior learning or competency, then that student will have an altered schedule that recognizes prior accomplishments of relevant learning outcomes. Students will be assigned a student identification number and BridgeValley email address within a week of the Student Services Admissions staff receiving the students' admission application.

Within the first two weeks of the non-credit course, each student will have the option to participate in the non-credit to credit conversion process. If a student elects to convert her/his non-credit training into college-level credit, she/he may do so by completing the Request to Convert Non-Credit Coursework to College Credit form. Once students are registered for credit section of the course, all academic policies contained in this catalog are applicable to the student. Grades awarded in noncredit classes will be as follows: "S" for satisfactory, "U" for unsatisfactory, "W" for Withdrawal, "D" for drop deleted, and an "I" for incomplete. Workforce students who elect to receive academic credit will be graded with the normal grading mode of BridgeValley. If a workforce course has a cooperative learning experience with industry such as an internship or a clinical rotation, students must demonstrate mastery at 80% as a minimum before they are sent to our affiliated organizations.

BridgeValley workforce non degree-seeking students enjoy the same privileges and are held accountable under the same Board of Governor's approved policies regarding academic rights and student responsibilities of conduct. Each of these policies are posted on the BridgeValley web page at <http://www.bridgevalley.edu/bog-adopted-policies>.

### **Non-Credit Workshops**

Non-Credit Workshops are for adult learners and have significant content for the purpose of professional development, professional certification preparation or personal enrichment. Formats are designed to meet the needs of learners. Participants in BridgeValley WEDD non-credit workshops may use the curriculum to prepare for professional licensing or certification exams. Some non-credit workshops qualify for credit at the student's election. (See Non-Credit to Credit Conversion)

### Continuing Education

Continuing Education is sometimes referred to as professional development and is intended for workers who are already employed and have a continuing need to enhance their job skills and improve their corporation's performance. Continuing Education often results in certificates, licenses, or continuing education units (CEUs). Examples of Continuing Education classes at BridgeValley are Lean Six Sigma, SHRM Learning System, OSHA 10, OSHA 30, Distillation Column course, 3D Modeling courses, etc. For a complete list of workforce courses visit <http://www.bridgevalley.edu/education-and-training>.

### Workforce Education

Workforce education can lead to associate degrees, certificate programs, or short-term programs and courses that prepare students for entry-level jobs. Workforce education at BridgeValley is geared toward short-term and non-credit programs that usually result in certification. Some programs are approved for academic credit. Examples of Workforce Education non-credit and short-term programs at BridgeValley include Real Estate Salesperson Pre-Licensure, Pipefitting, Pharmacy Technician, Certified Production Technician, Phlebotomy Technician, etc. For a complete list of workforce courses visit <http://www.bridgevalley.edu/education-and-training>.

### Personal Enrichment

Personal enrichment courses at BridgeValley consist of workshops and other activities that allow members of the community to pursue interests with others. Examples of BridgeValley personal enrichment courses would be Back To Work 50+ coaching workshops, computer literacy classes, Financial 50+, art classes, music classes, Road Scholar (see below) and other travel adventures, etc. For a complete list of workforce courses visit <http://www.bridgevalley.edu/education-and-training>.

### **Non-Credit Online Courses**

BridgeValley WEDD has partnerships with national educational organizations to deliver online training including Career Step's Medical Transcription and Medical Coding, and The Quality Group for a blended offering of Lean Six Sigma and Project Management. In addition, BridgeValley WEDD offers quality online instructor-facilitated courses from Education To Go, a part of Cengage Learning. Individuals seeking higher education opportunities to learn relevant information needed for their work or for personal enrichment, but do not want college credit, can choose from hundreds of courses online. Categories of courses include, but are not limited to: Basic Computer Literacy, Design, Programming, Networking, Health Care, Nutrition & Fitness, Math, Philosophy & Science, Personal Development, Education, Foreign Languages, Accounting and Law. Complete details for each course in every category can be obtained on the web at: [www.ed2go.com/BridgeValley](http://www.ed2go.com/BridgeValley).

### **Road Scholar**

This popular program, combining travel and education, is designed for older adults. Expand horizons or develop new interests as a carefree week is enjoyed—all arrangements for meals, accommodations, classroom instruction, and extra-curricular activities are included in the program fee. The relaxed atmosphere and quality instruction provide an ideal opportunity to learn new skills as people interact with others who have similar interests. For additional information, please visit online [www.roadscholar.org](http://www.roadscholar.org).

Some of the current program topics are:

- Birding (9056)
- Riding the Rails: Four Vintage Train Rides Thru Fall Colors (5230)
- Riding the Rails: Four Vintage Train Rides Thru Spring Flowers (20955)
- George Gershwin on Broadway; Irving Berlin; King of Tim Pan Alley: Oklahoma & The Sound of Music (20281)

### **Workforce Investment Act & the Regional Workforce Investment Board**

BridgeValley Community and Technical College System's involvement with the Workforce Investment Act (WIA) and the Regional Workforce Investment Board (WIB) is a commitment to ensure West Virginia's unemployed, underemployed, and dislocated workers opportunities to train/retrain in a community college setting. These educational programs are limited to approved workforce programs. WIA participants are also eligible for other forms of financial aid, including Pell Grants and work study. All applicants must first be certified eligible by one of the Regional Workforce WV sites.

### **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 at BridgeValley Community and Technical College assists students to apply for these grant funds.

### **BridgeValley WEDD Course and Workshop Policy**

Policies for all offerings are:

- Tuition and fees are due and payable by the student upon enrollment and registration for classes.
- All tuition and fees must be collected prior to the first day of classes. Exceptions may be granted where a bona fide third-party agency has provided authorization in writing that payment will be made for the student. Exceptions may be granted for financial aid disbursements for situations with no fault to the student. Exceptions shall be granted for deferred payment plans that shall be offered. (60/40 Split – See Cashier for details)
- BridgeValley reserves the right to refer any unpaid balances to a collection agency.
- BridgeValley reserves the right to cancel classes with low enrollment. Advance registration fees will be refunded.
- Only students who officially withdraw from all classes at the College shall be eligible for a refund.
- Requests to withdraw from a class must be made a minimum of five working days prior to the first day of the class in order to receive a refund. Student withdrawal past this deadline negates a refund to the student. Disruptive students will be dismissed and no refunds issued.
- Classes are cancelled due to weather only when BridgeValley classes are cancelled. Enroll in BridgeValley Connect at <http://www.bridgevalley.edu/bridgevalley-connect> to receive emergency alerts from BridgeValley.
- Certain workshops qualify for Higher Education Adult Part-Time Student Financial Aid. Contact [workshops@BridgeValley.edu](mailto:workshops@BridgeValley.edu) for further information.
- BridgeValley retains the right to use photos taken at classes for publicity purposes.

- Grades awarded in noncredit classes will be as follows: “S” for satisfactory, “U” for unsatisfactory, “W” for Withdrawal, “D” for drop deleted, and an “I” for incomplete. Workforce students who elect to receive academic credit will be graded with the normal grading mode of BridgeValley.
- See academic policy section of this catalog for additional policy information. Also see BridgeValley Board of Governor’s Policy D-1 (Student Rights and Responsibilities) and Policy D-2 (Student Academic Rights) at <http://www.bridgevalley.edu/bog-adopted-policies>. Please note, all BridgeValley Board of Governor’s Policies pertain to BridgeValley Workforce and Economic Development Division and its students.





# Academic Policy

# Academic Policy

## GENERAL EDUCATION POLICY

Students pursuing a two year associate of science, associate of arts, associate of applied science, or certificate program will complete a minimum sequence of courses known as the General Education Curriculum (GEC). The GEC is guided by a common set of student learning outcomes.

The BridgeValley General Education Student Learning Outcomes are designed to provide a foundation for future study and to expand the educational experience. The goal of the GEC is to provide opportunities and support needed to develop the skills, behaviors and attitudes that will enable the student to be successful as they matriculate through their higher education to graduate with the credentials needed to be employed in their chosen field. The GEC affords all students a common learning experience, provides opportunities through classes, labs and field experiences to advance student learning. In addition to being addressed by the GEC, each BVCTC program and discipline integrates these general education student learning outcomes into the major courses. It should also be noted that involvement in co-curricular activities and work experiences can contribute to the development of these skills, attitudes and behaviors.

Upon graduation students will be able to:

1. Communicate effectively by listening, speaking, and writing using appropriate technology.
2. Use quantitative and scientific knowledge effectively to solve problems, manipulate and interpret data, and communicate findings.
3. Demonstrate interpersonal skills and ethical behavior appropriate for living and working in a diverse society.
4. Apply critical thinking skills to analyze problems and make informed decisions.

## GENERAL EDUCATION PROGRAM REQUIREMENTS

Each degree or certificate program specifies courses students must take to satisfy the requirements for general education as well as the courses specified within the major. The same course may appear in more than one GEC category, but shall count only once towards graduations requirements. The requirements of each category must be satisfied.

The GEC includes courses in four areas of study as shown in the following table:

GEC Area		Associate of Arts	Associate of Science	Associate of Applied Science	Certificate Programs
1.	Communication	9	6	3	3
2.	Quantitative and Scientific Inquiry	6-9	6-9	3-6	3
3.	Ethical Behavior, Diversity	3	3	3	0
4.	Critical Thinking	3-6	6-9	3-6	0
Total GEC credit hours		24	24	15	6

Each program must include English 101. A 100 level math course is required for all programs unless otherwise specified by State or accreditation requirements.

In addition to the above GEC requirements, all associate degree graduates must complete and document 15 hours of approved citizenship/volunteerism/service learning activities. Associate degree graduates are also required to complete a portfolio demonstrating proficiency of the general education core curriculum, and technical assessments demonstrating proficiency within the field of study.

BVCTC continues to collaborate with other state institutions of higher education to facilitate a smooth transfer of general education courses, taken for associate programs, to be accepted as general education courses for baccalaureate programs. **Students should inform their program advisor of their possible intent to continue with a bachelor degree program after completion of their associate degree program.** This will assist the student and advisor to select the GEC options that provide the smoothest transfer from associate programs to bachelor degree.

### **BVCTC DOCUMENTATION OF GENERAL EDUCATION STUDENT LEARNING OUTCOMES**

BVCTC uses a portfolio process to document attainment of the general education learning outcomes. The primary goal of the portfolio process is to document an enhance student learning at BVCTC. Students will select artifacts that demonstrate they have met the expected student learning outcome for general education. The portfolio is where students will collect completed assignments and other products from co-curricular, work, or community experiences. Students will organize the evidence along with written reflection papers detailing how this evidence connects with the expected learning outcomes and future benefits.

BVCTC students are informed of the general student learning outcomes during their first semester at the college and are also introduced to the required portfolio process to document the outcomes at the same time. Students may seek the assistance of advisors for production and maintain a portfolio throughout their academic program. The submission of the portfolio is a requirement for each major capstone course. Prior to the student's graduation, the completed portfolio will be submitted by the student to his/her capstone course instructor or advisor, who will forward the portfolio for review at the institutional level.

A panel of BVCTC faculty, staff, and administrators, along with external reviewers from the community will be convened to review the portfolios. Data collected during these reviews of student portfolios will be analyzed and the findings reported. Each student will receive feedback on his/her portfolio submitted, and each program will receive an aggregate report of their program. This analysis is intended to provide information to the college as to what areas of the GEC might need improvement. Then, as appropriate, the institution will formulate recommendations to improve the attainment of the general education learning outcomes at BVCTC.

**GENERAL EDUCATION CURRICULUM CORE REQUIREMENTS**

The GEC policy focuses on four educational areas as outlined below. Upon completion of the General Education Curriculum, students are expected to:

**[GEC-1] Communicate effectively by listening, speaking, and writing using appropriate technology.**

**Requirements:** Successful completion of ENGL 101 is required.

Other GEC-1 courses include: ENGL 102, 103, 202, and COMM 100.

**[GEC-2] Use quantitative and scientific knowledge effectively to solve problems, manipulate and interpret data, and communicate findings.**

**Requirements:** Successful completion of defined courses in mathematics, science, or computational computer applications. Applicable courses include:

- a. ATEC 115
- b. BIOL 101, 102, 210, 215, 220, 221, 230, 231
- c. BUSN 112
- d. CHEM 100, 101, 102/103, 110, 111/112,
- e. MTGY 100
- f. PHYS 100, 101, 102
- g. PHSC 100, 101
- h. MATH (100 level or above)

**[GEC-3] Demonstrate interpersonal skills and ethical behavior appropriate for living and working in a diverse society.**

**Requirements:** Successful completion of defined courses in:

- a. ARTS 110, 120
- b. BUSN 230
- c. CRJU 208, 213, 230
- d. DENT 258
- e. EDUC 110, 260
- f. ENGL 203, 204
- g. GNET 112
- h. GERO 209
- i. HMGY 205
- j. HIST 101, 102, 111, 112, 205
- k. HUMN 101, 130, 205
- l. HWAY 106
- m. NURS 245
- n. PSYC 101, 201
- o. SOCA 101, 110, 120, 130

**[GEC-4] Apply critical thinking skills to analyze problems and make informed decisions.****Requirements:** Successful completion of defined course(s) in:

- a. ALHL 210, 225
- b. AMTE 245
- c. BUSN 296
- d. CIET 114, 245
- e. CRJU 262, 280
- f. CSCT 103
- g. DSGN 232, 242
- h. DENT 262
- i. DMSU 260
- j. DRFT 286
- k. ECON 201, 202
- l. EMST 232
- m. GERO 202
- n. GNET 108
- o. HSRS 140
- p. INFT 131, 280, 290
- q. INST 213
- r. MGMT 170
- s. MLAB 206
- t. NUCM 206
- u. NURS 244
- v. PRLS 103, PRLS 221

# ACADEMIC PROGRAMS

## ASSOCIATE IN SCIENCE PROGRAMS

Associate in Science Programs	Major Code
Civil Engineering Technology	5701
Dental Hygiene	5301
Drafting and Design Engineering Technology	5703
Electrical Engineering Technology	5704
General Education	5101
Graphic Design & Print Communication	5702
Information Technology	5706
Mechanical Engineering Technology	5705
Respiratory Therapy	5102

## ASSOCIATE IN ARTS

Associate in Arts Program	Major Code
General Education	7101

## ASSOCIATE IN APPLIED SCIENCE PROGRAMS

Associate in Applied Science Programs	Major Code
Accounting	3501
Accounting-Transfer	3502
Administrative Professional Technology: Executive Conc.	3503
Administrative Professional Technology: Legal Conc.	3504
Administrative Professional Technology: Medical Conc.	3505
Advanced Manufacturing	3701
Applied Process Technology	3702
Blasting Management	3718
Board of Governors	3101
Construction Management	3716
Computer Management Information Systems	3705
Computer Science Technology	3706
Criminal Justice	3506
Cyber Security	3707
Diagnostic Medical Sonography	3319
Diesel Technology	3708
Early Childhood Education	3102
Early Childhood Education-Transfer	3103
Emergency Medical Services- Paramedic	3306
EMI Technology	3720
Finance	3507
Finance: Banking Concentration	3508

Associate in Applied Science Programs	Major Code
Finance-Transfer	3509
Gerontology	3307
Health Sciences	3308
Healthcare Management	3510
Highway Engineering Technology-Bridge Inspection	3704
Highways Engineering Technology	3709
Highways Engineering Technology- Division of Highways	3710
Human Services and Rehabilitation Studies - Peer Support Specialists Concentration	3301
Human Services and Rehabilitation Studies -Addictions Concentration	3302
Human Services and Rehabilitation Studies -Autism Concentration	3303
Human Services and Rehabilitation Studies -Youth Concentration	3304
Human Services and Rehabilitation Studies	3305
Industrial Piping Design Technology	3717
Instrumentation Technology	3721
Machine Tool Technology	3712
Management	3511
Management: Entrepreneurship Concentration	3512
Management: Occupational Specialty Concentration	3513
Management-Transfer	3514
Marketing	3515
Marketing-Transfer	3516
Medical Assisting	3321
Medical Laboratory Technology	3309
Nuclear Medicine Technology	3310
Nursing	3311
Occupational Dev: Child Development Specialist	3104
Occupational Development	3719
Paralegal Studies	3517
Process Technology	3702
Technical Studies	3713
Veterinary Technology	3105
Web Design & Development Technology	3714
Welding Technology	3715

**CERTIFICATE PROGRAMS**

Certificate Programs	Major Code
Accounting	1501
Advanced Manufacturing	1713
Advertising	1502
Banking & Finance	1503
Chemical Operations	1702
Computer Maintenance and Networking	1703
Criminal Justice	1507
Diesel Technology	1704
Digital Imaging	1705
Early Childhood Education	1101
Emergency Medical Services- Emergency Medical Technician	1306
Entrepreneurship	1504
General Education	1102
Gerontology	1307
Health Sciences	1308
Human Services and Rehabilitation Studies - Peer Support Specialists	1301
Human Services and Rehabilitation Studies -Addictions	1302
Human Services and Rehabilitation Studies -Autism	1303
Human Services and Rehabilitation Studies -Youth	1304
Human Services and Rehabilitation Studies	1305
Machine Tool Technology	1706
Mechatronics	1716
Medical Coding	1505
Occupational Development	1714
Paraprofessional Education	1103
Pre Engineering	1707
Press Technology	1708
Sales	1506
Simulation, Gaming & Apps Development	1709
Technical Studies	1712



## ACADEMIC INFORMATION

### CREDIT HOURS

Academic advancement by the student is measured in terms of semester hours. To earn one semester hour, usually the student must attend a lecture of 50 minutes (one clock hour) each week in a semester. For laboratory credit of one semester hour, the student attends two or three clock hours per week.

Course descriptions in the catalog show the number of semester hours for the course and the number of hours of lecture and/or laboratory per week. Some courses may be offered in a compressed or extended timeframe and/or in a web or blended format.

### DELIVERY METHOD

The delivery method of the course does not affect the number of contact hours or the amount of work required to complete the course. The amount of work, the amount of contact hours, and the amount of credit hours granted remain the same regardless of the delivery method or timeframe.

Courses are delivered in one of three formats:

Type of Course	Face-to-Face Time	Online Time	How can I tell the format of the class before I register?
Web	None	100% (asynchronously)	Courses will have a "W" before the section number
Blended	Up to 50%	51-99% (either synchronously or asynchronously)	Courses will have a "B" before the section number
Traditional*	51-100%	0-50% (either asynchronously or synchronously)	Courses will have an alpha-numeric section number.

\*Traditional face-to-face classes may be enhanced with a web-delivered portion (less than 50% of the material delivered via the Internet, either synchronously or asynchronously). Most traditional classes at BridgeValley have a web enhanced portion.

### EXPIRATION OF CREDIT

Select programs have credit residency requirements. Please consult the program department for details.

**NONTRADITIONAL CREDIT**

BridgeValley Community and Technical College (College) provides students with the opportunity to earn credit through non-traditional avenues. Often called “Credit for Prior Learning”, this term is used to describe learning outside of the traditional educational environment. Learning that is acquired while living and working, such as serving in the military, independent studies, volunteering and community service, work-specific training, industry certifications and licensures, may be equivalent to college level learning. Students can demonstrate their college-level knowledge in the form of an experiential portfolio, credit by exam and standardized testing such as CLEP (College Level Examination Program) and Advanced Placement Exams. Using the opportunity to obtain “Credit for Prior Learning”, a student could possibly shorten the requirements for their chosen degree. Students interested in “Credit for Prior Learning” are encouraged to talk with the Program Coordinator or Dean in the area of study they would like to pursue, or the Veterans Coordinator, to discuss this opportunity. The College shall accept CLEP credits in accordance with Series 16 as provided by the West Virginia Council for Community and Technical Education. Successful completion of examinations will result in the acceptance of CLEP credits. Experiential Portfolio and In-house Credit by Examination options will adhere to the guidelines stipulated by the college.

**ACADEMIC CREDIT FOR MILITARY TRAINING**

Academic credit may be granted to veterans, National Guard, or Reserve members for successful completion of formal service school training programs on the basis of evaluations made by the Commission on Accreditation of Service Experiences and listed in the “Guide to the Evaluation of Educational Experiences in the Armed Services.”

Students who apply for credit are required to submit official records, such as a DD-214, a DD-295, transcripts of in-service training, certificates, or diplomas to the Office of the Registrar.

Students who would like to request a military transcript evaluation should have their transcripts forwarded to the Office of the Registrar. Military transcripts must be requested through the Joint Services Transcript System. To request a military transcript, please visit the Joint Services Transcript website at <https://jst.doded.mil>.

Credit for college-level USAFI courses will be granted in accordance with recommendations of the Commission on Accreditation of Service Experiences. In addition, veterans who served in regular military service for more than one year will be granted one semester hour of physical education and two semester hours of health upon presentation of a DD-214. Contact the BridgeValley Community and Technical College’s Veterans’ Affairs Office for additional information and assistance.

**PROJECT AHEAD (ARMY HELP FOR EDUCATION AND DEVELOPMENT)**

BridgeValley Community and Technical College cooperates with the United States Army in a Project AHEAD program to assist service personnel in keeping an accurate record of the academic work they complete while on active duty.

After qualifying for Army service, participants in the program apply for admission to college. The college will maintain a scholastic file and provide guidance for long term educational planning. In turn, the Army provides on-post guidance counselors to insure that courses leading to a degree are taken by the soldier-student. Records of college credits earned on active duty should be sent to the Office of the Registrar, which maintains an updated account of the student's work.

In addition, the Army offers financial educational support to the Project AHEAD student both during and after the tour of duty.

Upon release from active duty, the Project AHEAD student should report to campus and register for classes. The Office of Admissions and Records has complete information on the program.

### **ADVANCED PLACEMENT**

Students who have earned Advanced Placement credit and would like to have it evaluated for consideration should request an official Advanced Placement transcript from CollegeBoard to be sent to the Office of the Registrar. Not all Advanced Placement credit is eligible for articulation. If you have any questions or concerns regarding which Advanced Placement credits and/or scores will apply to your program, please contact your academic advisor.

Information concerning Advanced Placement credit is available at [www.collegeboard.org/ap](http://www.collegeboard.org/ap).

### **COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

Students who opt for CLEP testing will register for the exam through Educational Testing Services (ETS). Guidelines, procedures, and a score matrix for CLEP examinations are available on the College website.

- Students who participate in the College Level Examination Program and wish to receive college credits for such examinations must be enrolled at the College in order to receive credit from the institution. Students that have taken CLEP prior to enrollment must submit an official CLEP transcript to the Office of the Registrar.
- Credit shall not be awarded for equivalent courses in which students have already earned such credit through course work, institutional challenge examinations, life experience, or other mechanisms.
- The College shall equate the CLEP credit earned with existing course offerings. If no equivalent course is offered at the College, the credit earned by CLEP examination shall be considered elective credit.
- Programs reserve the right to limit the number of CLEP credits a student can earn toward his/her degree. Credits earned in this manner cannot exceed 12 hours and does not count toward residency requirements. There are exceptions to the Board of Governors AAS degree. Programs also reserve the right to require a higher score than recommended by the Commission of Educational Credits and Credentials of the American Council on Education for CLEP Exams. Credit shall be awarded in an amount not exceeding the number of semester hours for which the examination was designed.
- Information concerning CLEP examinations is available at [www.collegeboard.org/clep](http://www.collegeboard.org/clep).
- Upon successful completion of a CLEP Exam, the Office of the Registrar will transcript the official course titles to the student's official transcript as a "CR" grade. The academic record shall indicate credit was earned by CLEP and the credit will not be included in the computation of the student's grade point average.
- The standard proctoring fee will be charged for students who opt for CLEP testing.

### **CREDIT BY EXAMINATION**

Students interested in pursuing the in-house examination option will secure permission from the Dean of the Division where the course is housed. Once permission has been granted, arrangements for testing will be made and testing will occur.

- Student will be required to obtain permission to test for a certain course from the Dean of the Division where the course is housed.
- Application forms for “Credit-by-Examination” must be completed with the Division Dean’s approval and required fees paid prior to the exam being given.
- Once student obtains permission to test and payment made, he/she would make arrangements with the Exam Administrator/Assigned Instructor of the course to take the exam. The Student will be required to present the application for In-House exams with the stamped receipt of payment to the Exam Administrator/Assigned Instructor at the time of the exam.
- Upon successful completion of the exam and meeting the specified passing score, a Credit Equivalency form will be completed by the Exam Administrator/Assigned Instructor and signed by the Division Dean and Vice President of Academic Affairs. The form will be forwarded to the Registrar for posting to the student’s transcript and recorded with a grade of “K” to indicate test out.
- A student may attempt to take an in-house examination in any individual course only once.
- Students may not attempt credit-by-examination in courses for which they are enrolled and have begun. Additionally, students may not attempt credit-by-examination in courses which they have completed and for which they have grades on their transcripts.

### **PORTFOLIO CREDIT**

Academic credit may be granted through portfolio review for work or life experiences that are equivalent to course work which meets the requirements for the degree program in which the student is enrolled. (For students enrolled in programs outside the Board of Governors AAS Program)

- Students interested in submitting an experiential portfolio can initiate the request for a portfolio review only after they have successfully completed 12 credit hours of college level work at the College and/or a regionally accredited institution of higher education. Students should consult the program director for the program in which the course is offered to obtain direction and guidance with the portfolio process.
- For students enrolled in programs outside of the Board of Governor AAS, submission of a portfolio for credit earned in the manner cannot exceed 12 credit hours and does not count toward residency requirements.
- Prior to the portfolio process and in the initial consultation with the program director, the student will obtain and complete a “Request for Academic Credit for Experiential Learning Preliminary Application”. The program director will review the application and either approve or deny courses for the experiential portfolio. The application is returned to the student for payment of the portfolio process.
- A non-refundable portfolio assessment fee, per fee schedule, is due upon completion and approval of the Experiential Learning Preliminary Application.
- Once payment has been made for the portfolio assessment, the student can begin the portfolio process following the Portfolio Preparation Guidelines provided by the program director.

- Completed portfolios are submitted to the program director of the program in which the course is housed. If the portfolio is approved for credit, the student will be required to pay a posting fee, as reflected on the fee schedule, to post credits to their transcript.
- The program director will complete a Credit Equivalency form to indicate credit earned, and once proper fees have been paid by the student, the form will be submitted to the Office of the Registrar where credits will be posted to the student's transcript with a special designation for portfolio credits.

### **TRANSFER CREDIT**

Students may transfer to BridgeValley from other regionally accredited institutions of higher education. Official transcripts must be submitted to the college. Transfer credit evaluation will be conducted by the Office of the Registrar in collaboration with Academic Affairs. International transcripts must be evaluated on a course-by-course basis by an approved third-party. Our preferred translation and evaluation servicer is the American Association of Collegiate Registrars and Admissions Officers (AACRAO). For more information regarding transcript translation and evaluation and to apply for an individual course-by-course evaluation, please visit <http://ies.aacrao.org/evaluations/app.php>. If you have any questions or concerns regarding specific program requirements, please contact your academic advisor.

The College operates under the premise that similarly aligned courses from other public and private institutions in West Virginia are transferable. Every effort is made to ensure the maximum amount of credit transferred is applied toward a student's chosen field of study. All transferred credit may not apply toward a specific field of study. In the event a student would like to appeal the application of a transferred course, a Transfer Credit Application Appeal form must be completed and returned to the Office of the Registrar along with any applicable supplemental documentation such as a course syllabus, course description, etc.

### **CLASSIFICATION OF STUDENTS BY CLASS RANK**

Class rank is based on the total number of semester hours of college-level credit on file in the Registrar's Office at the beginning of each term. Minimum requirements are:

Class Rank	Semester Hours Earned
Freshman	0 – 29
Sophomore	≥ 30

### **CLASSIFICATION OF RESIDENCY FOR FEE PURPOSES**

Students who have been classified as non-residents may appeal to the Residency Appeals Committee by submitting the Application to Establish Residency, along with supporting documentation, to the Office of the Registrar.

**CREDIT-HOUR LOAD**

Students may register for up to 19 credit hours during a regular semester. However, a student may be approved for a maximum load of up to 23 hours upon recommendation of the academic advisor and by approval of the division dean.

Students may register for up to 12 credit hours during a summer term.

**CLASS ATTENDANCE**

Students are expected to attend class regularly. Instructors set attendance regulations for their classes. They will specify early in the semester what the regulations are and the policy regarding makeup tests and class assignments. Students are responsible for all work missed as a result of absence. Institutional excuses for college-sponsored activities are granted by the administrator of the school and honored by each instructor. There are consequences for non-attendance; including the possibility of failing grades and/or loss of financial aid.

**GRADING SYSTEM**

Grades awarded are:

A	Excellent	4 quality points per credit hour
B	Good	3 quality points per credit hour
C	Average	2 quality points per credit hour
D	Below Average	1 quality point per credit hour
F	Failure	0 quality points per credit hour
FI	Failure Irregular Attendance	0 quality points per credit hour
I	Incomplete	Not calculated in GPA
NC	No Credit	Unsuccessful completion
K/CR	Credit, but no grade	Successful completion
AU	Audit	Not calculated in GPA
P	Passing	Successful completion
W	Withdrawal within time limit	Not calculated in GPA
IP	In Progress	IP or "In Progress" will appear on a transcript while courses are in progress.

Any course below the 100-level will be excluded from the GPA calculation and will not count toward fulfilling graduation requirements. However, these credits will be used for the purpose of computing satisfactory academic progress GPAs and semester honors.

**GRADE POINT AVERAGE CALCULATION**

The academic grade point average is calculated by dividing the total number of 100-level, or above, quality points earned by the total number of 100-level, or above, GPA hours. The satisfactory academic progress GPA also includes any course below the 100-level.

**INCOMPLETE GRADES**

Students requesting an incomplete grade due to unavoidable circumstances should contact the instructor of the course. Eligible students will have an opportunity to complete the course within an established amount of time as published in the academic calendar.

**REPEATING CLASSES**

Students must make satisfactory academic progress toward degree completions. In maintaining satisfactory academic progress, no student may take a class more than two times without permission from the Chief Academic Officer or designee.

If a student earns a grade of “D” or “F”, including failures due to regular or irregular withdrawal, on any course taken no later than the semester or summer term during which the student attempts the sixtieth 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 earned when the course is repeated shall be used in determining the student’s cumulative grade point average. The original grade shall not be excluded from the student’s record.

**ACADEMIC FORGIVENESS**

Students are eligible for academic forgiveness if the following conditions are met:

- The student must not have been enrolled in any 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 excluded from the student’s permanent record.
- In instances where students request and gain academic forgiveness from one college and then transfer to another institution, the receiving institution is not bound by the prior institution’s decision to disregard grades for grade-point computation.
- All institutional degree requirements must be met.
- Only enrolled students are eligible.
- The Board of Governor’s Degree Completion Program is governed by a different forgiveness policy.
- This pertains only to graduation requirements and may not fulfill requirements for application to selective admission to programs.

**GRADE REPORTING PERIODS**

Mid-semester and final grades are reported to the Office of the Registrar each semester. Mid-semester grades are progress reports only and students may obtain a copy through MyBridge (the student self-service account). Final grades are available at the end of each semester through MyBridge. A student having an error in a grade received or a grade omitted should contact the instructor. An instructor who makes an error in reporting a grade may request a grade change by completing a form provided by the

Office of the Registrar. All corrections in grades must be approved by the division dean and chief academic officer.

### **GRADE APPEALS**

The Student Grade Appeal Process provides a fair, orderly and unbiased process for students who wish to pursue a formal appeal of their final course grade. In taking such action, students shall assume the burden of proof concerning any perceived error in the grade assigned. Further, they shall follow the sequence of steps outlined in this policy with the presumption that, as a matter of rule, instructors do not assign arbitrary, capricious, prejudicial, or discriminatory grades. The grade appeal process must be started within 15 working days of the posting of the final grade, within 2 working days for part-of-term courses.

Before starting a formal grade appeal process, the student must discuss the final course grade, including grading practices and assignments, with the instructor who gave the final grade. The instructor and the student should make every effort to eliminate any misunderstandings over the assignment of the grade as it relates to the course syllabus. It is expected that most grade issues will be resolved at this level. This discussion must occur before the student may file a formal appeal.

If the faculty member finds in the student's favor, a grade change is submitted with signatures and the appeal process is resolved.

If a student and instructor fail to resolve the grade dispute through informal means the student may request a formal grade appeal process by initiating a formal student grade appeal.

### **PROCESS**

**Step 1:** The student must notify the course faculty member in writing immediately (within 2 working days for part-of-term courses, no later than 15 working days for full-term courses) of the posting of the final grade stating that s/he wishes to discuss his/her final grade. If the course faculty member does not respond to the student's email within the specified time or if there is no resolution and the student intends to pursue a grade appeal, the student must obtain a Student Grade Appeal Form from the BridgeValley website, his or her counselor, or any division office. The Student Grade Appeal Form must include all facts and supporting documentation from the student prior to presenting the form to the course faculty. The Student Grade Appeal containing the decision and the rationale must be completed, dated and signed by the course faculty member.

**Step 2:** If the issue is not resolved to the student's or the instructor's satisfaction at Step 1, the decision may be appealed to the department chairperson\* within 10 working days of the student submission of the Student Grade Appeal Form to the faculty to arrange a meeting. The faculty member may be invited to this meeting if the department chairperson deems it appropriate. The student must attend the scheduled meeting and discuss the issue of the grade appeal with the department chairperson. Should a student fail to attend any scheduled meeting, the appeal will be nullified and no further action will be considered. The Student Grade Appeal Form, containing the decision and the rationale, must be completed, dated and signed by the department chairperson.

\*If the faculty member is also the department chair, proceed to the next step.



Step 3: If the issue is not resolved to the student's or the instructor's satisfaction at Step 2, the student must contact the Academic Division Dean\* within 10 working days to schedule a meeting. The student must attend the scheduled meeting and discuss the issue of the grade appeal. Should a student fail to attend any scheduled meeting, the appeal will be nullified and no further action will be considered. The Academic Division Dean will conduct an investigation of the situation. The Student Grade Appeal Form, containing the decision and the rationale must be completed, dated and signed by the Academic Division Dean.

\*If the faculty member is also the Academic Division Dean, proceed to the next step.

Step 4: If the issue is not resolved to the student's or the instructor's satisfaction at Step 3, the student must send a copy of the Student Grade Appeal Form to the Office of the Registrar (Registrar) within 10 working days to schedule a meeting. After meeting with the student and discussion with faculty, the Registrar will review the appeal to determine if the student has appropriate grounds for appeal based on the statements in the syllabus and other instructor documents. If warranted, the Registrar will convene the Grade Appeals Committee, which is a recommending body and a subcommittee of the Academic Board, to convene a hearing. If not, the Vice President of Academic Affairs (VPAA) makes the determination that the grade stands. The student will be notified in writing of the VPAA's decision.

Grade Appeals Committee: The Grade Appeals Committee is convened by the Registrar after Step 4 when the grade is still in dispute and the Registrar determines that the student has grounds for an appeal. The Grade Appeal Committee will be made up of five (5) faculty members, one (1) student, and the Registrar (or designee), who will be a non-voting member, except in the event of a tie. Both the faculty member and student involved in the appeal will have an opportunity to be heard before the Grade Appeals Committee, and any employee involved in Steps 1-3 may be asked to comment before the Committee. The participants will be informed, in writing, of the Committee's recommendation within two (2) working days after the hearing.

The faculty member must abide by the recommendation of the Committee and will submit any grade change deemed necessary to the Office of the Registrar.

## **ACADEMIC DISHONESTY**

Honesty among the members of any group is required for the smooth functioning of the group. In college, new experiences, awareness, and the academic life with its freedoms, frequently put individual honesty to the test. Without honesty, both individual and institutional goals would be compromised. Therefore, academic dishonesty will not be tolerated. It is presumed that the student has gained a basic understanding of the meaning of the term dishonesty prior to entering college. Academic dishonesty includes any deceitful act committed to affect any student's scholastic standing. All parties knowingly associated with the act are guilty of dishonesty whether or not they directly benefit from the act.

Examples of academic dishonesty include, but are not limited to: (1) plagiarism of an item submitted for a grade such as a question answer or an exam, quiz, or laboratory report, a submitted paper, experimental data, a computer program, or homework; (2) falsifying experimental data; (3) using work accomplished by another person; (4) assisting another person to cheat; (5) falsifying records; and (6) improperly accessing computer stored information.

While this policy will apply for all courses in the institution, each faculty member may establish a policy statement, within the framework of this policy, on cheating and resulting penalties for their courses, to be included in the course syllabus. It is a faculty and student responsibility to prevent academic dishonesty.

When academic dishonesty is suspected, the faculty member should discuss the matter with the student involved as soon as practical, but should assess a penalty only when the evidence justifies such action or where the student provides a written admission of guilt. Possible penalties the faculty member may utilize range from failure on the item in question to dismissal from the course with a failing grade. In the event of dismissal from the course for reasons of academic dishonesty, a student may not withdraw to avoid a failing grade. When a penalty is levied, the student may accept the penalty and sign a written admission of guilt, accept the penalty without admission of guilt, or may, within one week, appeal the faculty member's decision to the department/division chair of the department involved. If appeal is requested, the chair will meet with the student and faculty member involved as soon as possible to review the evidence related to the case. The student still has the option to remain in the course and continue the work until the appeal process is completed in the case of appeal of dismissal from a course. It should, however, be clearly understood that, if the decision for dismissal is upheld, the student will receive an "F" grade for the course regardless of overall performance in the course work. If the student chooses not to remain in the course, the committee shall decide whether to award a "W" or "F" grade based on the outcome of the appeal.

Should the chair uphold the faculty member's decision, the student may appeal to the Vice President of Academic and Student Affairs or accept the decision. If the chair does not uphold the faculty member's action, the instructor may accept that decision or appeal the question to the Vice President. The appeal must be in writing, describing the basis for appeal, and be submitted within one week after the chair's decision.

Either the student or faculty member may appeal the decision of the Vice President by a written request for a hearing, addressed to the Chair of Academic Appeals Committee, within one week of the decision. When such an appeal request is made, the committee chair will schedule a hearing within two weeks and notify, in writing, all concerned parties of the time and location of the hearing and also the hearing procedure to be followed.

Additional penalties for academic dishonesty include suspension or permanent dismissal from the institution. Only the Academic Appeals Committee can determine these sanctions after a formal hearing before the Committee. In accordance with BOG Policy, a recommendation for the imposition of sanctions by the Academic Appeals Committee in a case of academic dishonesty is final. A hearing toward imposition of the sanctions of suspension or dismissal can be initiated at the request of the instructor, the department/division chair, or the Vice President.

In the event that a student receives an "F" grade in a course as a result of academic dishonesty, a report of this action will be filed with the appropriate administrative office. Should the student receive a second such "F" grade, the student shall be subject to suspension or dismissal from the institution, the appropriate action to be determined by the Academic Appeals Committee. When a student graduates, any such report concerning that student will be removed from the file and destroyed.

**ENROLLMENT VERIFICATION**

BridgeValley Community and Technical College has partnered with the Student Clearing House to provide electronic enrollment verification services. To submit an electronic request for an enrollment verification, please visit the Student Clearing House website at <https://secure.studentclearinghouse.org/vs/Index>.

**DEGREE VERIFICATION**

BridgeValley Community and Technical College has partnered with the Student Clearing House to provide electronic degree verification services. To submit an electronic request for a graduation verification, please visit the student Clearing House website at <https://secure.studentclearinghouse.org/vs/Index>.

**OFFICIAL TRANSCRIPTS**

Students may request an official transcript of their academic progress from the Office of the Registrar. Please allow up to one business week for the processing of transcripts. The first official transcript will be issued at no charge. Additional official transcripts require a fee of ten dollars each. The fee must be paid to the Cashier's Office. Each request for an official transcript must be submitted on a separate form. Any and all obligations to the college must be satisfied before the transcript will be released.

**COURSE REGISTRATION**

Students may request a change in schedule by completing a course registration form and having it signed by their academic advisor. Completed forms may be submitted to the Office of the Registrar or the Division of Student Affairs.

Students choosing to withdraw from a specific course must complete and submit a course registration form to the Office of the Registrar or the Division of Student Affairs by the applicable date published in the academic calendar.

A student enrolled under a Veterans Administration program must report to the Office of Special Populations before withdrawing from a course.

**CHANGE IN MAJOR**

A student indicates a major at the time of application for admission and remains in that major until graduation or until receiving approval to change to another major. Such approval is granted when the student completes a change in major form, available in the Office of the Registrar or the Division of Student Affairs. Change in major requests will only be processed prior to the start of the semester. All other requests will be processed the following semester.

**ADMINISTRATIVE DROP**

At the discretion of the Chief Academic Officer, students may be administratively dropped from courses for reasons including, but not limited to, cases of emergency, attendance related issues, non-payment, failure to complete financial aid processing, failure to meet academic requirements, etc.

**ADMINISTRATIVE WITHDRAWAL**

At the discretion of the Chief Academic Officer, students may be administratively withdrawn from courses for reasons including, but not limited to, attendance related issues, cases of emergency, calls to serve in the military, etc.

For more information regarding calls to serve in the military, please refer to the “Students Called to Serve in the Military” section of the catalog

**STUDENT INITIATED WITHDRAWAL FROM COLLEGE**

Students requesting to withdraw from college must complete and submit a Withdraw from College form to the Office of the Registrar by the deadline in the academic calendar. Refund of tuition and fees, when applicable, is based on the earliest dated signature by a college official.

Any grade earned for a part-of-term class that has concluded prior to the request to withdraw from college will be unaffected by the request to withdraw from college.

**ATTENDANCE REPORTING**

Instructors are required to report attendance. Non-attendance may affect a student’s financial aid eligibility, veteran’s benefits, final grades, etc. Students should notify their instructor(s) immediately if they are unable to attend class (es) for any reason.

**STUDENTS CALLED TO SERVE IN THE MILITARY**

Students called to serve in the military during a period of enrollment should notify the college immediately. Several options, as outlined below, are available to these students.

- In the event of an unexpected call to duty, the military member student shall be afforded a choice of options for completion of enrolled coursework.
- If the military member student has completed 75 percent or more of the term or the required coursework, s/he may choose to:
  - Receive full credit for the course, with assignment of the grade earned up to the time of the call to duty
  - Withdraw from the course without academic penalty and receive no credit for the course pursued.
- If the military member student has completed less than 75 percent of the term or the required coursework, s/he may choose to:
  - Receive an “incomplete” grade for the course and, with written verification of concurrence of the instructor or department chair, complete the course within one year of release from military duty. Institutional timelines for completing the coursework and removing the “incomplete” grade shall be published
  - Withdraw from the course without academic penalty and receive no credit for the course pursued but receive a proportional refund of tuition and fees and room and board for the term, as permitted within adherence to financial aid regulations.
- Military members seeking relief under this rule must provide proof, in the form of a dated copy of official orders, that the call up or reassignment could not reasonably have been foreseen prior to the beginning of term in which registered.
- This rule shall not be applicable in the case of planned military training during an enrolled term if the planned military training was scheduled and the military member notified of it prior to the beginning of the term.

**APPROVED ACADEMIC LEAVE OF ABSENCE FOR SERVICE MEMBERS**

Service members in good academic standing who have been continuously enrolled and completed 50% or more of the course work in a program of study are eligible for academic leave of absence due to military service obligations. Degree requirements in effect at the time of each Service member’s enrollment will remain in effect for a period of one year beyond the program’s standard length, providing continuance of the program. If a student attends any institutions of higher education while on leave of absence, an overall grade point average of 2.0 on all work attempted while on leave combined with the BridgeValley grade point average is required. Students requesting academic leave must meeting with the college Veterans Coordinator and also receive approval from the major Academic Dean.

**PROBATION AND SUSPENSION**

An institutional satisfactory academic progress grade point average of a 2.0 is required to maintain “good standing.” Additional requirements regarding the successful completion of attempted credit hours and stated degree objectives are required for consideration in awarding Federal Financial Aid.

**PROBATION**

If a student’s institutional satisfactory academic GPA falls below a 2.0, the student shall be placed on academic probation for the following semester and be notified by letter. Copies of the notification will be forwarded to the Office of the Registrar to be placed in the student’s permanent file, and to the students’ department chair.

No student on probation may carry more than 14 semester hours without the approval of the academic advisor and the division dean; including participation in non-credit courses.

A student receiving financial aid or veteran benefits, having failed to maintain satisfactory academic progress, will be referred to the respective office responsible for administering these student service programs. Satisfactory academic progress as related to financial aid policies may differ from the academic standing policy. Students receiving financial aid may be required to submit additional documentation in order to maintain their financial aid status (see Standards of Satisfactory Academic Progress in Student Services Handbook).

Students on probation must report to the Director of Retention no later than one week after classes begin the next semester.

Students are removed from probation once their overall institutional satisfactory academic GPA is at least 2.0. If during any subsequent semester the overall institutional satisfactory academic GPA is below 2.0, the student will return to academic probation.

### SUSPENSION

A student on academic probation who fails to achieve a semester satisfactory academic GPA of at least 2.0 for the current semester will be suspended for one semester. A student who has been suspended once may be readmitted by remaining out of school for one semester (summer does not satisfy this provision) and by applying for readmission. A student may petition the Chief Academic Officer to waive the one semester waiting period. Approval is granted on a case-by-case basis and requires a signed contract of agreement. All petitions must be made prior to the beginning of the semester. A student who is readmitted after academic suspension will be placed on academic probation and will be required to follow all requirements associated with academic probation. A suspended student is not eligible to attend the College during the period of suspension nor will credits earned at other schools during this period be accepted in transfer.

A student who is placed on second Academic Suspension will remain on suspension for a period of one academic year and then may request readmission to the College. The student must request readmission through the Chief Academic Officer. Students readmitted after any suspension may not be eligible for federal financial aid and must report to the Director of Retention no later than one week after classes begin.

### RECOGNITION OF SCHOLARSHIP

The college publicly recognizes students who have achieved a high degree of scholarship in their academic work at BridgeValley Community and Technical College through formal induction ceremonies into Honor Societies, publication of the Dean's List each semester, publication of the President's List each semester, and the awarding of degrees with honors at commencement. In determining these honors, the student's satisfactory academic progress grade point average is used. The satisfactory academic progress GPA also includes any course below the 100-level.

### DEAN'S LIST

To recognize academic excellence of students enrolled for 12 semester hours or more, the Dean's List is published at the end of each regular semester. This list contains names of all full-time students whose satisfactory academic progress grade point averages are 3.25-3.99. Each student whose grade point average in a particular semester is a 3.25-3.99 is eligible to receive a certificate.

### PRESIDENT'S LIST

To recognize academic excellence of students enrolled for 12 semester hours or more, the President's List is published at the end of each regular semester. This list contains names of all full-time students whose satisfactory academic progress grade point averages are 4.0. Each student whose grade point average in a particular semester is a 4.0 is eligible to receive a certificate.

### GRADUATION WITH HONORS

In determining commencement ceremonial and graduate honors, the student's cumulative institutional grade point average is utilized. The cumulative institutional grade point average does not include any course below the 100-level or transfer courses.

Special recognition is given at commencement to students who have achieved special distinction in their studies. Spring graduates' ceremonial honors are based on their previous semester averages. Students participating in graduation whose degrees have been conferred (December and August graduates) will be recognized with final graduate honors. A student must have earned 12 or more GPA credit hours at

the College to be eligible to receive commencement ceremonial and graduate honors. Final graduate honors will be recorded on the diploma and transcript. Three types of honors may be awarded:

- Summa Cum Laude – A student must attain a 3.75 or higher cumulative institutional grade point average.
- Magna Cum Laude – A student must attain a 3.50-3.74 cumulative institutional grade point average.
- Cum Laude – A student must attain a 3.25-3.49 cumulative institutional grade point average.

## **PROGRAM DESIGNATIONS**

**Degree Program:** an area of study approved as such by the institution and the WV Community and Technical College System and listed on the official inventory of degree programs. The degree is represented by the official degree designation (e.g., A.S. Associate in Science, A.A.S. Associate in Applied Science and CP- Certificate Degree.)

**Major/Program of Study:** a field of study within an approved degree program, having its own prescribed curriculum. A degree program may have more than one major.

**Concentration:** A thematic focus of study that enable the student to spend the time and effort to acquire depth in a particular discipline, in addition to meeting the normal breadth of requirements for the associate's degree (typically 12-18 credit hours).

**Certificate Degree Programs:** allows for successful entry into employment in a specific career usually as the foundation of the Associate in Applied Science. A minimum of 30 credit hours constitute a certificate program at the associate level.

**Advanced Skill Sets:** defined series of courses that prepare individuals for a specific skill (12-29 credit hours).

**Basic Skill Sets:** defined series of courses that prepare individuals for a specific skill (up to 11 credit hours)

## **GRADUATION**

### **APPLICATION FOR GRADUATION**

A formal application for graduation must be filed in the Office of the Registrar by the date published in the academic calendar.

### **REQUIREMENTS FOR GRADUATION**

Candidates for graduation from a specific major will be evaluated based on the catalog which was in effect at the time they declared the major unless one of the following is true:

- A student interrupts his/her study for two consecutive semesters excluding the summer term (readmitted students will be placed in the effective catalog at a the time of readmission)
- A student elected to move to newer catalog at the time it was in effect
- A student meets the requirements of the catalog in effect at the time of graduation

Degree requirements vary from program to program. The minimum semester hour requirement for an Associate degree is 60. The student is responsible for completing all program requirements. If a substitution or waiver is recommended by the academic advisor and is approved by the Chief Academic Officer, a signed form must be on file in the Office of the Registrar before the substitution or waiver is in



effect. Candidates for graduation taking courses under transient student status must ensure that a transcript is received in the Office of the Registrar no later than ten (10) calendar days after the Commencement date. Transfer students must meet the residency requirements of the program. If you have any questions or concerns regarding specific program requirements, please contact your academic advisor.

Graduation requirements for associate degrees from BridgeValley Community and Technical College includes the following:

1. Minimum of 60 earned credit hours, with a minimum of fifteen credit hours taken in residence at BridgeValley;
2. An overall 2.0 cumulative grade point average;
3. An overall 2.0 institutional grade point average;
4. An overall 2.0 grade point average in the student's major field as outlined in the college catalog;
5. Completion of all program specific requirements as outlined in the catalog;
6. Completion of all required assessments as outlined in the catalog;
7. Fulfilment of all obligations to the college;
8. Documented completion of 15 hours of citizenship/volunteerism/service learning activities. These activities must be approved prior to the activity and all documentation must be completed and signed by the appropriate parties at the completion of the activity.

### **ASSESSMENT PROGRAM**

To assess student academic achievement, BridgeValley Community and Technical College has established an institutional assessment program. Components of the assessment programs include the following:

- Assessment of the general education core curriculum: Portfolio
- Programmatic assessment: Instruments designated by each academic department, administered in accordance with the departmental assessment program.
- Student satisfaction: Survey completed to gather data on student engagement.
- Graduate and employer follow-up: Surveys mailed to graduates and employers to determine relevance of education in the workplace.

### **DEPARTMENTAL PRACTICUMS/INTERNSHIPS/EXTERNSHIPS**

A number of programs require supervised Practicum/Internships/Externship. The Practicum/Internship/Externship is designed to combine theory and practice in a field integrated with the academic program.

### **OFF-CAMPUS COURSES**

The college provides a variety of credit courses and programs for adult and nontraditional students. Off-campus, evening, weekend and special session offerings at the associate levels are arranged by academic departments. Programming is supplemented through the use of electronic videoconferencing,

Internet, e-mail, satellite and television featuring a wide variety of educational topics. Courses are offered in locations that best meet the needs of students, business and industry.

Students enrolled in off-campus courses may be admitted under several different categories:

- Special Students, who are (1) high school juniors or seniors, preferably with a 2.5 scholastic average and with approval of their principal; (2) high school graduates not pursuing degrees; or (3) adults without a diploma but who have passed the GED test. Special students take fewer than 12 hours of course credit.
- Auditors take no examinations and receive no grades or credits for courses audited and cannot later receive credit by examination for courses audited.
- High School Graduates who are taking courses that lead to a college degree. Additional information may be obtained by contacting the Admissions Office.

### **PROCTORED EXAMS**

It is the policy of BridgeValley Community and Technical College that exams will be proctored (supervised) including those administered in web-based courses.

### **SERVICE LEARNING**

Service learning is an important component, and expectation of the educational experience at BridgeValley. Students are required to complete and document a minimum of 15 hours of citizenship/volunteerism/service learning experiences prior to earning an associate degree. Opportunities for service learning occur through participation in academic clubs or specific departmental courses or through activities with civic or professional groups. Examples include stream monitoring, Pumpkin Drop, food and clothing drives, assistance with “The Bridge” newspaper, and dental hygiene clinics for elementary school children.



# Academic Programs

# Certificate in Applied Science

## ACCOUNTING

### PROGRAM DESCRIPTION

The Accounting Program prepares students for entry level positions in the field of accounting as well as enhancing the skills of individuals currently employed in the accounting field. The program provides specialized knowledge in accounting theory and practice as well as an understanding of Business operations in the American economy.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Demonstrate an understanding and proficiency with accounting terminology, Generally Accepted Accounting Principles, financial statement preparation and the accounting cycle.
- Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles and IFRS.
- Demonstrate proficiency in the use of accounting software.
- Demonstrate an understanding of the taxation of individual income.
- Apply cost accounting principles and procedures to evaluate and project business performance.
- Possess the necessary knowledge and skills to move into a baccalaureate program.

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams. General education outcomes are assessed by a general education portfolio.

### CAREERS

The Accounting program prepares graduates for employment as:

#### \*Bookkeeping, Accounting, and Auditing Clerks

- |                           |                               |
|---------------------------|-------------------------------|
| • Accounting Clerk        | • Accounts Payable Clerk      |
| • Accounting Assistant    | • Accounts Receivable Clerk   |
| • Accounts Payables Clerk | • Account Receivable Clerk    |
| • Bookkeeper              | • Accounts Payable Specialist |
| • Account Clerk           | • Accounting Associate        |

#### \*Accountants and Auditors

- |                         |                       |
|-------------------------|-----------------------|
| Public Accountant       | • Assurance Manager   |
| • Cost Accountant       | • Financial Auditor   |
| • Auditor               | • Audit Manager       |
| • Tax Preparer          | • Forensic Accountant |
| • Controller            | • FBI Investigator    |
| • Treasurer             |                       |
| • Business Analyst      |                       |
| • Accounting Officer    |                       |
| • Accounting Supervisor |                       |
| • Staff Accountant      |                       |
| • Internal Auditor      |                       |

\*www.onetonline.org

**GAINFUL EMPLOYMENT INFORMATION**

The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for Bookkeeping, Accounting, and Auditing clerks is \$35,170 and a 11% job outlook growth rate (average rate), 2012-20. Experience, education and certification all increase earning potential. If students go on to further their education, Accountants and Auditors have a reported median salary of \$63,550 as of May 2012 and a 13% growth rate, 2012-2020.

**SALARY INFORMATION**

<http://www.bls.gov/ooh/business-and-financial/home.htm>

Tuition and Fees\*: \$4520 In-State Resident  
\$11420 Non-Resident  
Books\*: \$1300  
CB Certification Exam: \$395  
Graduation Rate: N/A  
Job Placement Rate: 72% (college average)  
Median Loan Debt: N/A

\*Actual costs may vary.

**ACCOUNTING**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
ECON 202	Principles of Macroeconomics	3
BUSN 112	Business Mathematics	3
ATEC 115	Fundamentals of Business Computer Apps	3
ACCT 185	Survey of Accounting	3
ACCT 215	Financial Accounting	3
ACCT 216	Managerial Accounting	3
ACCT 235	Integrated Computer Accounting	3
ACCT 285	Intermediate Accounting <sup>§</sup>	3
ACCT 290	Individual Income Tax <sup>§</sup>	3
		<b>Total 30</b>

*§ Denotes courses offered only on the South Charleston campus*

# Associate in Applied Science

## ACCOUNTING

### with 2+2 Transfer Track

#### PROGRAM DESCRIPTION

The Accounting Program prepares students for entry level positions in the field of accounting as well as enhancing the skills of individuals currently employed in the accounting field. The program provides specialized knowledge in accounting theory and practice as well as an understanding of Business operations in the American economy.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Demonstrate an understanding and proficiency with accounting terminology, Generally Accepted Accounting Principles, financial statement preparation and the accounting cycle.
- Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles and IFRS.
- Demonstrate proficiency in the use of accounting software.
- Demonstrate an understanding of the taxation of individual income.
- Apply cost accounting principles and procedures to evaluate and project business performance.
- Possess the necessary knowledge and skills to move into a baccalaureate program.

#### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams, which may include ETS Associate Business Exam or The National Certified Bookkeeper Exam. The Accounting 2+2 option is assessed according to the above in addition to the successful transition/completion of a Baccalaureate degree. General education outcomes are assessed by a general education portfolio.

#### TRANSFER BACCALAUREATE OPTIONS

- Marshall University
- West Virginia State University
- University of Charleston

#### CAREERS

The Accounting program prepares graduates for employment as:

\*Bookkeeping, Accounting, and Auditing Clerks

- Accounting Clerk
- Accounting Assistant
- Accounts Payable Clerk
- Bookkeeper
- Account Clerk
- Accounts Payable Clerk
- Accounts Receivable Clerk
- Account Receivable Clerk
- Accounts Payable Specialist
- Accounting Associate

If students go on to further their education:

\*Accountants and Auditors

- Public Accountant
- Staff Accountant
- Auditor
- Tax Preparer
- Controller
- Business Analyst
- Accounting Officer
- Accounting Supervisor
- Internal Auditor
- Assurance Manager
- Audit Manager
- Forensic Accountant

\*[www.onetonline.org](http://www.onetonline.org)

### **SALARY INFORMATION**

The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for Bookkeeping, Accounting, and Auditing clerks is \$35,170 and a 11% job outlook growth rate (average rate), 2012-20. Experience, education and certification all increase earning potential. If students go on to further their education, Accountants and Auditors have a reported median salary of \$63,550 as of May 2012 and a 13% growth rate, 2012-2020.

<http://www.bls.gov/ooh/business-and-financial/home.htm>

**ACCOUNTING**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
BUSN 106	Introduction to Business	3
A TEC 115	Fundamentals of Business Computer Apps	3
ACCT 185	Survey of Accounting <b>OR</b>	
BIOL 101	General Biology **	3
BIOL 102	General Biology Lab**	1
MATH 130	College Algebra** <b>OR</b>	
BUSN 112	Business Mathematics	3
	<b>Semester Total</b>	<b>15-16*</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
BUSN 201	Business Law	3
ECON 202	Principles of Macroeconomics	3
ENGL 102	English Composition II	3
MGMT 202	Principles of Management	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
ECON 201	Principles of Microeconomics** <b>OR</b>	
FINC 280	Financial Management	3
MRKT 205	Fundamentals of Marketing	3
ACCT 216	Managerial Accounting	3
BUSN 230	Business Communications and Ethics	3
ACCT 235	Integrated Computer Accounting	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
ACCT 290	Individual Income Tax*	3
ACCT 285	Intermediate Accounting*	3
ACCT 286	Cost Accounting * AND Restricted Elective <b>OR</b>	
ACCT 291	Certified Bookkeeper and Accounting Review*	
BUSN 266	Business Internship <b>OR</b>	
BUSN 296	Business Statistics*	2-3*
BUSN 298*	Business Studies Seminar	1
	<b>Semester Total</b>	<b>14*-15</b>



## Associate in Applied Science

### ADMINISTRATIVE PROFESSIONAL TECHNOLOGY

#### Executive, Legal and Medical Concentrations

##### PROGRAM DESCRIPTION

This two-year program is designed to prepare students for a professional career as an administrative support specialist and reflects the evolving responsibilities of this occupation. Office professionals are increasingly self-directed and technically proficient. This program emphasizes project management; Internet communications and research; document retrieval; customer service and public relations; the ability to take initiative, think logically, demonstrate problem-solving techniques and successfully interact with a variety of personalities.

The program includes theoretical and laboratory instruction by providing students with up-to-date training for today's high-tech office as well as a strong background in office-related skills and knowledge. Additionally, an internship at an area business setting provides the foundation needed for the following certification exams: Computing Core Certification (IC3), Microsoft Office Specialist (MOS), and Office Proficiency Assessment Certification (OPAC). Students pursuing the medical concentration will also develop their expertise in diagnostic and procedure coding and medical office billing procedures. The program will be applying for AHIMA accreditation and will prepare the student to sit for the AHIMA Certified Coding Specialist (CCS®) Certification.

Secretaries and administrative professionals perform a variety of clerical and managerial duties that are necessary to run an organization efficiently. Instruction includes business communications, principles of business law, scheduling and travel management, accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office management skills, and professional standards. Specific job duties vary by experience, job title, and specialty.

Executive secretaries and executive administrative assistants provide high-level administrative support for an office and for top executives of an organization. They often handle more complex responsibilities, such as reviewing incoming documents, conducting research, and preparing reports. Some also supervise clerical staff.

Legal secretaries perform work that requires knowledge of legal terminology and procedures. They prepare legal papers such as summonses, complaints, motions, and subpoenas under the supervision of an attorney or a paralegal. They also review legal journals and help with legal research—for example, by verifying quotes and citations in legal briefs.

Medical secretaries prepare reports or articles for physicians or medical scientists. They take simple medical histories of patients, arrange for patients to be hospitalized, or process insurance payments. Medical secretaries need to be familiar with medical terminology, medical records, and hospital or laboratory procedures.

### PROGRAM GOALS AND OBJECTIVES – EXECUTIVE CONCENTRATION

In addition to the learning outcomes set forth in the general education core curriculum for the associate of applied science degree, specific outcomes for this concentration have been established. Upon completion of the program graduates will:

- Operate office equipment, use office procedures, perform machine transcription, manage records and prepare documents with proficiency
- Utilize office technology such as word processing, electronic file management, electronic presentations and various desktop publishing software packages with proficiency
- Pass the Microsoft Office Certification Exams – Word, Excel and PowerPoint and the OPAC Exam

### PROGRAM GOALS AND OBJECTIVES – LEGAL CONCENTRATION

In addition to the learning outcomes set forth in the general education core curriculum for the associate of applied science degree, specific outcomes for this concentration have been established. Upon completion of the program graduates will:

- Operate office equipment, use office procedures, perform machine transcription, manage records and prepare documents with proficiency
- Utilize office technology such as word processing, electronic file management, electronic presentations and various desktop publishing software packages with proficiency
- Pass the Microsoft Office Certification – Word, Excel and Access and the OPAC Exam
- Examine the legal system and processes as well as employ legal reasoning

### PROGRAM GOALS AND OBJECTIVES – MEDICAL CONCENTRATION

In addition to the learning outcomes set forth in the general education core curriculum for the associate of applied science degree, specific outcomes for this concentration have been established. Upon completion of the program graduates will:

- Operate office equipment, use office procedures, perform machine transcription, manage records and prepare documents with proficiency
- Utilize office technology such as word processing, electronic file management, electronic presentations and various desktop publishing software packages with proficiency
- Pass the Microsoft Office Certification – Word, Excel and Access and the OPAC Exam
- Apply diagnostic and procedure principles and guidelines
- Use medical office billing guidelines and procedures
- Utilize medical terminology as well as knowledge of human anatomy, basic pharmacology, and pathophysiology of the human body to assign medical codes
- Interpret medical records for completeness, accuracy, and compliance with regulations

### PROGRAM ASSESSMENT ALL CONCENTRATIONS

Course outcomes are assessed by exit exams in each course. Program outcomes are assessed in capstone courses and internship. Learner outcomes are assessed by national certification examinations. General education outcomes are assessed by a portfolio.

### CAREERS

According to the Occupational Outlook Handbook, overall employment of secretaries and administrative assistants is projected to grow 12 percent from 2012 to 2022, **about as fast as the average** for all occupations. Employment growth, however, will vary by occupational specialty.

Employment of paralegals and legal assistants is projected to grow 17 percent from 2012 to 2022, **faster than the average** for all occupations. This occupation attracts many applicants, and competition for jobs will be strong.

Employment of medical secretaries is projected to grow 36 percent from 2012 to 2022, **much faster than the average** for all occupations. Federal health legislation will expand the number of patients who have access to health insurance, increasing patient access to medical care. In addition, the aging population will have increased demand for medical services. As a result, medical secretaries will be needed to handle administrative tasks related to billing and insurance processing.

### **GAINFUL EMPLOYMENT INFORMATION**

The Administrative Professional Technology program prepares graduates for employment as:

**43-6011.00\*** - **Executive Secretaries and Executive Administrative Assistants** - Administrative Assistant, Executive Assistant, Executive Secretary, Administrative Secretary, Office Manager, Administrative Coordinator, Administrative Aide, Administrative Associate, Executive Administrative Assistant, Secretary

**43-6012.00\*** - **Legal Secretaries** - Legal Secretary, Legal Assistant, Magistrate Assistant, Confidential Secretary, Judicial Administrative Assistant, Legal Administrative Secretary, Litigation Assistant, Secretary

**43-6013.00\*** - **Medical Secretaries** - Admissions Coordinator, Billing Coordinator, Health Unit Coordinator, Medical Office Specialist, Medical Secretary, Patient Coordinator, Physician Office Specialist, Unit Secretary, Unit Support Representative, Ward Clerk

- [www.onetonline.org](http://www.onetonline.org)

**ADMINISTRATIVE PROFESSIONAL TECHNOLOGY  
EXECUTIVE CONCENTRATION  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ATEC 115	Fundamentals of Business Computer Apps	3
ATEC 120	Document Processing	3
BUSN 106	Introduction to Business	3
BUSN 112	Business Mathematics	3
ENGL 101	English Composition I	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ACCT 185	Survey of Accounting	3
ATEC 125	Advanced Document Processing	3
BUSN 120	IPR: Interviewing Strategies	1
BUSN 121	IPR: Professional Etiquette <b>OR</b>	
BUSN 122	IPR: Customer Service	1
CHEM 100	Consumer Chemistry <b>OR</b>	
BIOL 101	General Biology	3
MGMT 151	Supervisory Management	3
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
ATEC 200	Desktop Publishing	3
Restricted Elective	Any ACCT, ATEC, MGMT, MRKT, or FINC Course	3
ATEC 220	Records and Database Management	3
BUSN 201	Business Law	3
FINC 201	Personal Finance	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
ATEC 230	Office Procedures	3
ATEC 250	MOS Access Certification	1
ATEC 255	MOS Excel Certification	1
ATEC 260	MOS PowerPoint Certification	1
ATEC 265	MOS Word Certification	1
BUSN 230	Business Communications and Ethics	3
BUSN 266	Business Internship	2
BUSN 298	Business Studies Seminar	1
MGMT 253	Human Resource Management	3
	<b>Semester Total</b>	<b>16</b>

**ADMINISTRATIVE PROFESSIONAL TECHNOLOGY  
LEGAL CONCENTRATION  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ATEC 120	Document Processing	3
BUSN 112	Business Mathematics	3
ENGL 101	English Composition I	3
PRLS 100	Intro to the Paralegal Profession*	2
PRLS 101	Civil Litigation I*	3
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
ACCT 185	Survey of Accounting	3
ATEC 115	Fundamentals of Business Computer Apps	3
ATEC 125	Advanced Document Processing	3
BUSN 120	IPR: Interviewing Strategies	1
BUSN 121	IPR: Professional Etiquette	1
BUSN 122	IPR: Customer Service	1
CHEM 100	Consumer Chemistry <b>OR</b>	
BIOL 101	General Biology	3
MGMT 151	Supervisory Management	3
	<b>Semester Total</b>	<b>18</b>
<b>Third Semester</b>		
ATEC 220	Records and Database Management	3
BUSN 201	Business Law	3
BUSN 230	Business Communications and Ethics	3
PRLS 201	Evidence and Litigation*	3
Restricted Elective	ACCT, MGMT, MRKT or PRLS courses	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
ATEC 230	Office Procedures	3
ATEC 250	MOS Access Certification	1
ATEC 255	MOS Excel Certification	1
ATEC 260	MOS PowerPoint Certification	1
ATEC 265	MOS Word Certification	1
BUSN 266	Business Internship	2
BUSN 298	Business Studies Seminar	1
PRLS 204	Civil Litigation II*	3
	<b>Semester Total</b>	<b>13</b>

*\*Denotes courses that are only offered on the South Charleston campus.*

**ADMINISTRATIVE PROFESSIONAL TECHNOLOGY  
MEDICAL CONCENTRATION  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
A TEC 120	Document Processing	3
BUSN 106	Introduction to Business	3
BUSN 112	Business Mathematics	3
ENGL 101	English Composition I	3
MEDC 101	Medical Terminology	1
MEDC 150	Medical Insurance and Billing Practices	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ACCT 185	Survey of Accounting	3
ALHL 110	Pharmacology	3
A TEC 115	Fundamentals of Business Computer Apps	3
BUSN 120	IPR: Interviewing Strategies	1
MEDC 110	Medical Law and Ethics	1
MGMT 151	Supervisory Management	3
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
MEDC 201 OR MEDC 200	Diagnostic Medical Coding/Medical Coding	3
A TEC 125	Advanced Document Processing	3
BIOL 210	Human Anatomy and Physiology	4
MEDC 215	Human Pathophysiology	2
A TEC 220	Records & Database Management	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
MEDC 203 OR A TEC 200	Procedural Medical Coding/Desktop Publishing	3
MEDC 205 OR HGMT 105	CPT/HCPCS Medical Coding/ Healthcare Management	3
A TEC 230	Office Procedures	3
BUSN 230	Business Communications and Ethics	3
BUSN 266	Business Internship	2
BUSN 298	Business Studies Seminar	1
	<b>Semester Total</b>	<b>15</b>

*\*Denotes courses that are only offered on the South Charleston campus.*

# Associate in Applied Science

## ADVANCED MANUFACTURING TECHNOLOGY

### PROGRAM DESCRIPTION

The Advanced Manufacturing Technology (AAS-AMFT) degree program provides a highly interactive hands-on course of study that prepares graduates for careers in the modern manufacturing environment. Advanced manufacturing technology graduates repair, troubleshoot and maintain manufacturing equipment including automated control systems, process control systems, hydraulic and pneumatic systems, conveyors, robots, and application specific machinery. Graduates have a broad multi-disciplinary background in electrical, mechanical, fluid power, automation, instrumentation and process control systems, as well as basic fabrication skills in order to facilitate working with modern electro-mechanical machinery.

The AMFT program uses an innovative block-scheduled cohort model to deliver classes, so students have the opportunity to participate in long-term in-depth internships with participating industrial partners. Program courses are offered two days a week in approximately 8-hour blocks for five semesters. Qualifying students may intern with industry partners on non-class days to obtain a valuable background of real world applications throughout the program. Internships are determined by the program's industrial partners in accordance with their policies and procedures. Graduates who have participated in the internship program enter the work force with not just a degree, but also the equivalent of a year of professional industrial experience.

The core program provides a general framework that students can customize to meet their specific educational and career goals. Due to the flexibility of the program, graduates have career opportunities in a wide range of manufacturing industries including chemical processing, automotive manufacturing, equipment fabrication and the mining industry.

### PROGRAM GOALS AND OBJECTIVES

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

1. Work competently, effectively and safely to install, analyze, repair and maintain electromechanical, electrical and electronic systems and subsystems with minimal supervision.
2. Install, maintain, repair and operate:
  - industrial control systems,
  - test, measurement and instrumentation equipment,
  - electromechanical systems and devices,
  - machine tools and fabrication equipment.
3. Communicate effectively in written, oral and graphical forms.
4. Work effectively in teams with other technicians, engineers, scientists, and production personnel.
5. Apply industry-based safety standards in the work environment.
6. Understand professional and ethical responsibility to their field and to society.
7. Appreciate cultural and ethnic diversity in the workplace.
8. Understand the need to maintain their technical skills and develop new ones through personal development and continued learning.

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Manufacturing Engineers EET Outcomes Assessment exit exam, which assesses student knowledge in a variety of areas of the electrical engineering technology field. General education outcomes are assessed by the ACT WorkKeys exit examination.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level electronic, electrical or computer-oriented coursework is not necessary for entrance into the Advanced Manufacturing Technology program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience. Please contact the department chair.

**CAREERS IN ADVANCED MANUFACTURING TECHNOLOGY**

The Bureau of Labor Statistics Occupational Outlook Handbook predicts that AMFT graduates will have bright prospects for employment over the next decade, with the number of positions in the field expected to grow by 19% from 2010 to 2020. According to the O\*NET database, this corresponds to more than 117,000 new positions nationally by 2020.

Typical graduate positions include chemical process technician, industrial maintenance mechanic, automation programmer and electromechanical equipment assembler/tester/installer.



**ADVANCED MANUFACTURING TECHNOLOGY  
ASSOCIATE IN APPLIED SCIENCE**

Program Core with Program Specialization Electives Shown

<b>First Semester</b>		
AMTE 111	DC Circuits: Fundamentals	3
AMTE 121	AC Circuits: Fundamentals	3
GNST 102	First Year Experience	1
GNET 122	Industrial Safety Fundamentals	3
MATH 115	Applied Technical Math (GEC-2)	3
AMTM 247	Fundamentals of Fluid Power	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
AMTE 127	AC Circuits: AC Power & 3-Phase Systems	1
AMTE 131	Industrial Electronics: Transformers	1
AMTE 132	Industrial Electronics: Motors & Motor Control	1
AMTE 141	PLC Fundamentals (GEC-4)	1
AMTE 142	PLC Interfacing and HMIs (GEC-4)	1
AMTE 143	PLC Applications (GEC-4)	1
AMTE 151	CST: Sensors and Actuators	1
AMTE 152	CST: Process Control	1
AMTM 248	Applications of Fluid Power	2
ENGL 101	English Composition I (GEC-1)	3
	GEC-3 Elective	3
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
WLDT 101	Introduction to Welding Processes Part I	3
WLDT 102	Introduction to Welding Processes Part II	3
	<b>Semester Total</b>	<b>6</b>
<b>Fourth Semester</b>		
ENGL 102	English Composition II (GEC-1)	3
GNET 108	Computer Applications for Technicians (GEC-4)	3
MEET 121	Manufacturing Processes I	3
MEET 225	Mechanical Design I	3
	Program Elective	3
	<b>Semester Total</b>	<b>15</b>
<b>Fifth Semester</b>		
AMTM 280	Mechanical Maintenance Principles	3
	Program Elective	3
	Program Elective	3
	Program Elective	3
	<b>Semester Total</b>	<b>12</b>

**ADVANCED MANUFACTURING TECHNOLOGY  
ASSOCIATE IN APPLIED SCIENCE**

Automotive Maintenance Technician Concentration

<b>First Semester</b>		
AMTE 111	DC Circuits: Fundamentals	3
AMTE 121	AC Circuits: Fundamentals	3
GNST 102	First Year Experience	1
GNET 122	Industrial Safety Fundamentals	3
MATH 115	Applied Technical Math (GEC-2)	3
AMTM 247	Fundamentals of Fluid Power	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
AMTE 127	AC Circuits: AC Power & 3-Phase Systems	1
AMTE 131	Industrial Electronics: Transformers	1
AMTE 132	Industrial Electronics: Motors & Motor Control	1
AMTE 141	PLC Fundamentals (GEC-4)	1
AMTE 142	PLC Interfacing and HMIs (GEC-4)	1
AMTE 143	PLC Applications (GEC-4)	1
AMTE 151	CST: Sensors and Actuators	1
AMTE 152	CST: Process Control	1
AMTM 248	Applications of Fluid Power	2
ENGL 101	English Composition I (GEC-1)	3
	GEC-3 Elective	3
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
WLDT 101	Introduction to Welding Processes Part I	3
WLDT 102	Introduction to Welding Processes Part II	3
	<b>Semester Total</b>	<b>6</b>
<b>Fourth Semester</b>		
ENGL 102	English Composition II (GEC-1)	3
GNET 108	Computer Applications for Technicians (GEC-4)	3
MEET 121	Manufacturing Processes I	3
MEET 225	Mechanical Design I	3
MATH 126	College Algebra	3
	<b>Semester Total</b>	<b>15</b>
<b>Fifth Semester</b>		
AMTE 261	Industrial Robotics	3
AMTE 281	Industrial Troubleshooting	2
AMTE 290	Practicum	1
AMTM 280	Mechanical Maintenance Principles	3
MEET 122	Processes II	3
	<b>Semester Total</b>	<b>12</b>

**ADVANCED MANUFACTURING TECHNOLOGY  
ASSOCIATE IN APPLIED SCIENCE**

Instrumentation and Processes Technician Concentration

<b>First Semester</b>		
AMTE 111	DC Circuits: Fundamentals	3
AMTE 121	AC Circuits: Fundamentals	3
GNST 102	First Year Experience	1
GNET 122	Industrial Safety Fundamentals	3
MATH 115	Applied Technical Math (GEC-2)	3
AMTM 247	Fundamentals of Fluid Power	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
AMTE 127	AC Circuits: AC Power & 3-Phase Systems	1
AMTE 131	Industrial Electronics: Transformers	1
AMTE 132	Industrial Electronics: Motors & Motor Control	1
AMTE 141	PLC Fundamentals (GEC-4)	1
AMTE 142	PLC Interfacing and HMIs (GEC-4)	1
AMTE 143	PLC Applications (GEC-4)	1
AMTE 151	CST: Sensors and Actuators	1
AMTE 152	CST: Process Control	1
AMTM 248	Applications of Fluid Power	2
ENGL 101	English Composition I (GEC-1)	3
	GEC-3 Elective	3
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
WLDT 101	Introduction to Welding Processes Part I	3
WLDT 102	Introduction to Welding Processes Part II	3
	<b>Semester Total</b>	<b>6</b>
<b>Fourth Semester</b>		
GNET 108	Computer Applications for Technicians (GEC-4)	3
MEET 225	Mechanical Design I	3
PTEC 101	Introduction to Process Technology	3
PTEC 103	Process Technology I: Equipment	3
WLDT 102	Introduction to Welding Processes Part II	3
	<b>Semester Total</b>	<b>15</b>
<b>Fifth Semester</b>		
PTEC 203	Industrial Robotics	3
PTEC 205	Process Technology III - Operations	4
ENGL 102	English Composition II (GEC-1)	3
AMTM 280	Mechanical Maintenance Principles	3
	<b>Semester Total</b>	<b>13</b>

**ADVANCED MANUFACTURING TECHNOLOGY  
CERTIFICATE**

<b>First Semester</b>		
AMTE 111	DC Circuits: Fundamentals	3
AMTE 121	AC Circuits: Fundamentals	3
GNST 102	First Year Experience	1
GNET 122	Industrial Safety Fundamentals	3
MATH 115	Applied Technical Math (GEC-2)	3
AMTM 247	Fundamentals of Fluid Power	3
<b>Semester Total</b>		<b>16</b>
<b>Second Semester</b>		
AMTE 127	AC Circuits: AC Power & 3-Phase Systems	1
AMTE 131	Industrial Electronics: Transformers	1
AMTE 132	Industrial Electronics: Motors & Motor Control	1
AMTE 141	PLC Fundamentals (GEC-4)	1
AMTE 142	PLC Interfacing and HMIs (GEC-4)	1
AMTE 143	PLC Applications (GEC-4)	1
AMTE 151	CST: Sensors and Actuators	1
AMTE 152	CST: Process Control	1
AMTM 248	Applications of Fluid Power	2
ENGL 101	English Composition I (GEC-1)	3
	GEC-3 Elective	3
<b>Semester Total</b>		<b>16</b>

# Certificate in Applied Science

## ADVERTISING

### PROGRAM DESCRIPTION

The Certificate in Applied Science in Advertising is designed for students and employees interested in developing advertisements. Although all advertising media is addressed, the student will learn basic graphic design and general desktop publishing software. This certificate will offer more specialized skills to a student majoring in marketing, communications or any other business field. The 30 credit hours for the degree were selected to improve the understanding of advertising and its use with respect to public relations, marketing, business and non-profit organizations. There are nine credit hours dealing with computer graphics, graphic design and desktop publishing.

### PROGRAM GOALS AND OBJECTIVES

- Demonstrate an understanding and proficiency with the Marketing Mix (the Four Ps) and its importance to the organization
- Make a sales presentation using the ten step sales process.
- Be able to develop an integrated advertising campaign using sound advertising principles.
- Developed a social media strategy for a brand or company that was appropriately integrated with overall marketing strategy (i.e. segmentation, targeting, positioning, marketing mix)

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams. General education outcomes are assessed by a general education portfolio.

### CAREERS

The Advertising Certificate program prepares graduates for employment as an advertising sales agent\* or advertising/promotion manager\* with typical job titles such as: advertising agent, retail sales manager, account executive, advertising representative, sales director, ad buyer, promotions manager or advertising director.

\* [www.onetonline.org](http://www.onetonline.org)

**GAINFUL EMPLOYMENT INFORMATION**

The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for Advertising Sales Agents is \$46,290 and a -1% job outlook growth rate, 2012-20.

Experience, education and certification all increase earning potential. If students go on to further their education, Advertising, Promotions and Marketing Managers have a reported median salary of \$115,750 as of May 2012 and a 12% growth rate, 2012-2020.

For additional salary information see:

- <http://www.bls.gov/ooh/management/advertising-promotions-and-marketing-managers.htm>
- <http://www.bls.gov/ooh/sales/advertising-sales-agents.htm>

Tuition and Fees\*: \$4520 In-State Resident

\$11420 Non-Resident

Books\*: \$1300

CB Certification Exam: \$395

Graduation Rate: N/A

Job Placement Rate: 72% (college average)

Median Loan Debt: N/A

\*Actual costs may vary.

**ADVERTISING**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MRKT 173	Professional Selling*	3
MKRT 175	Marketing Communications*	3
CSCT 120	Computer Graphics - Illustrator	3
MRKT 205	Fundamentals of Marketing	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
A TEC 115	Fundamentals of Business Computer Apps	3
BUSN 112	Business Mathematics	3
A TEC 200	Desktop Publishing	3
CSCT 124	Computer Graphics - Photoshop	3
MRKT 220	Social Media Marketing*	3
<b>Semester Total</b>		<b>15</b>

*\*Denotes courses offered only on the SC campus.*

# Associate in Applied Science

## BLASTING MANAGEMENT

### PROGRAM DESCRIPTION

Blasting managers successfully combine technical proficiency, field experience and interpersonal communication skills. In order to be prepared for the rigors of the program, students will be required to possess prior knowledge and understanding of the basic principles of drilling and blasting. This prerequisite knowledge is designed to provide the student with sufficient breadth and depth of knowledge to facilitate program success.

The curriculum fuses blasting standards to the evolving trends within the discipline and teaches skills needed by blast managers in front-line supervisory positions. These skills include familiarity with or knowledge of:

- explosive types and properties
- various initiation systems and shot timing
- scientific and mathematical principles
- fragmentation of coal overburden, ore, and rock;
- seismic and acoustic principles
- blasting environmental issues
- written and verbal communication skills
- supervision and conflict resolution
- regulatory and record requirements
- business laws and ethics
- drill types and processes
- geology
- blasting economics and accounting
- public relations
- blasting and business software programs

This on-line degree places particular emphasis on discussion and interaction between students in various geographical, geological and blasting environments.



**PROGRAM GOALS AND OBJECTIVES**

Graduates will demonstrate an appropriate mastery of skills required of blasting managers. The degree is designed to enhance current work experience and to provide the student an opportunity to advance within the blasting industry. To help students obtain this degree faster, they will be allowed to test-out of applicable courses and to apply for a waiver of required classes if previous college credits are approved.

Learning outcomes for the Associate of Applied Science degree are outlined in the general education core curriculum section of the College Catalog.

**BLASTING MANAGEMENT**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BLST 120	Blasting Fundamentals	3
BLST 122	Blasting Safety & Regulations	3
MATH 115	Applied Technical Math	3
ENGL 101	English Composition I	3
BUSN 106	Introduction to Business	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
BLST 130	Blasting Calculations	3
BLST 132	Blasting Environmental Effects	3
HWAY 120	Geology for Technicians	2
PHSC 100	Physical Science	3
PHSC 101	Physical Science Lab	1
A TEC 115	Fund. of Bus. Computer Tech.	3
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
BLST 232	Surface Blasting	3
BLST 234	Underground Blasting	3
ENGL 202	Business & Professional Writing	3
MGMT 155	Fund. of Entrepreneurship	3
MGMT 202	Principles of Management	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
BLST 244	Drilling	3
GEC 3	General Education Course	3
BUSN 201	Business Law	3
MGMT 253	Human Resources Management	3
ACCT 215	Financial Accounting	3
<b>Semester Total</b>		<b>15</b>

Recommended GEC 3 Diversity Electives: SOCI 101- Introduction to Sociology, PSYC 101 - General Psychology, SOCI 130 - Diversity in the Workplace (1 credit hour)

# Associate in Applied Science

## BOARD OF GOVERNORS

### PROGRAM DESCRIPTION

Is a non-traditional degree completion opportunity at the associate degree level.

### PROGRAM GOALS AND OBJECTIVES

It is specifically designed for adult learners to meet occupational goals, employment requirements, establish professional credentials, or achieve personal goals. The degree program provides the opportunity for adult learners to utilize credit for prior learning experiences via licenses, certificates, military credits and other non-collegiate sources while assuring maximum credit transferability.

### PROGRAM LEARNING OUTCOMES

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

- Apply effective written and oral communication skills
- Work collaboratively in groups
- Think critically and solve problems
- Demonstrate practical application of quantitative and scientific reasoning skills
- Demonstrate analysis and evaluation of skill competencies derived from multiple sources including work, volunteer activities, hobbies, etc.
- Demonstrate understanding of principles of good citizenship
- Develop long-range vocational or transfer goals
- Demonstrate basic computer literacy and use of computerized communication technology
- Examine issues from a global perspective
- Demonstrate mastery of interdisciplinary competencies as defined in educational plan

### PROGRAM REQUIREMENTS

General Education– 21 credit hours

- Communications – 6 credits hours (3 credits of ENGL 101 or equivalent is required)
- Mathematics/Sciences – 6 credit hours (3 credits hours of MATH – 100 level or higher is required)
- Social Sciences/Humanities – 6 credit hours
- Computer Literacy – 3 credit hours

### General Electives

- 39 Credit hours of General Electives

Credit hour requirements may be met through a variety of means such as:

- Traditional coursework
- Standardized exams
- Institutional Challenge exams
- Military Training
- Work and Life experiences (see note)
- Evaluation of non-collegiate sponsored instruction

### Note:

- Students submitting a portfolio for assessment of credits for prior learning will be required to take GNST 130 – Introduction to Governors Portfolio.
- A \$300 evaluation fee plus a \$10 per credit hour posting fee is charged for portfolio evaluation/assessment. Evaluation fee is charged at time of submittal and posting fee is charged after the evaluation.

### PROGRAM ASSESMENT

Students must take a General Education Proficiency Profile (ETS) exam prior to graduation.

### TRANSFER BACCALAUREATE OPTIONS

Regents B.A.

### OTHER INFORMATION

(LINKS TO ADMISSION REQUIREMENTS, SPECIFIED VACCINATIONS, SAFETY REQUIREMENTS, ETC.)

### Residency Requirements

Twelve credit hours from a regionally accredited higher education institution are required. A minimum of three credit hours from BVCTC are required.

### Admission Requirements

Students are eligible for admission to the program two years after graduation from high school. In the case of those passing a high school equivalency exam, admission must be two years after their high school class has graduated.

**Areas of Emphasis**

Students enrolled in the Board of Governors AAS can be eligible for an area of emphasis. In order to receive an area of emphasis, a student must meet one of the following criteria:

1. Completion of 15 credit hours of transcribed coursework from an accredited institution of higher learning in an occupational concentration with a minimum grade of C in each course, in program areas of study appropriate to the associate degrees offered at BVCTC.
2. Completion of 15 credit hours obtained through extra-institutional credits in an occupational concentration appropriate to the associate degrees offered at BVCTC. Extra-institutional credits can be earned through programs such as those offered at vocational and technical centers as well as military occupational training programs.
3. Completion of a minimum of 15 credit hours obtained through a combination of graded coursework from an accredited institution, in an occupation concentration with a minimum grade of C in each course (as described in #1) and extra-institutional credits in program areas of study appropriate for the associate-level degrees (as described in #2).

All credits either earned traditionally or through extra-institutional means must be transcribed to the student's BVCTC records before areas of emphasis can be determined. The Program Coordinator is responsible for validating the completion of a defined area of concentration and will recommend the area of emphasis designation to the VPAA. The VPAA will give the final approval for the area of emphasis.

## BOARD OF GOVERNORS

## ASSOCIATE IN APPLIED SCIENCE

<b>General Education 21 Credit Hours</b>		
	Communications	6
	Mathematics/Science	6
	Social Sciences/Humanities	6
	Computer Literacy	3
	<b>Total</b>	<b>21</b>
<b>Communication/ 6 Credit Hours/ Suggested Electives</b>		
ENGL 101	English Composition 1	3
ENGL 102	English Composition 2	3
ENGL104	Technical Writing	3
ENGL 201	Business & Professional Writing	3
ATEC 240	Business Communications & Ethics	3
COMM 100	Oral Communications	3
GNST 130	Introduction to Governors Portfolio	1
<b>Social Science/Humanities/ 6 Credit Hours/ Suggested Electives</b>		
PSYC 101	Introduction to Psychology	3
PSYC 201	Life Span Development	3
SOCI 101	Introduction to Sociology	3
SOCI 110	Social Problems	3
SOCI 120	Families and Society	3
GERO 209	Psychosocial Aspects of Aging	3
GERO 206	Death and Dying	3
HUMN 101	Introduction to Humanities	3
HIST	Any 100/200 History Course	3
<b>Mathematics/Science*/ 6 Credit Hours/ Suggested Electives</b>		
BIOL 101	General Biology	3-4
CHEM 100	Consumer Chemistry	3
MTGY 100	Weather and Climate	3
PHSC 100	Physical Science	3-4
MATH	Any 100 level Math Course* (3 credit hours must be in Math)	3
<b>Computer Literacy/ 3 Credit Hours/ Suggested Electives</b>		
ATEC 115	Fundamentals of Business Computer Applications	3
ATEC 120	Beginning Document Processing	3
CSCI 100	Introduction to Computer & Office Applications	3
<b>General Electives 39 Credit Hours<sup>2</sup></b>		
	Traditional coursework	
	Standardized exams	
	Institutional challenge exams	
	Military training	
	Work and life experiences	
	Evaluation of non-collegiate sponsored instruction	

\*Most BA/BS degrees require College Algebra

# Associate in Applied Science

## CIVIL ENGINEERING TECHNOLOGY

### PROGRAM DESCRIPTION

The Associate in Science degree Civil Engineering Technology (ASCET) is a two-year program that prepares graduates for employment in construction, water resources, public works, structural detailing and design, environmental studies, mining development and related fields. The program stresses materials, surveying, structures, water resources, soil mechanics, construction and highways. The graduate is prepared to support engineers various areas of civil engineering.

Typical assignments include preparing plans, field/lab testing of construction materials, layout and inspection of construction projects and mining development. The graduate might also work under the supervision of an engineer performing basic design calculations in highways, structures, hydraulics/hydrology and soils. Completion of this program also qualifies the graduate to enter directly into the plus-two Bachelor of Science program Engineering Technology-Civil emphasis at West Virginia University Institute of Technology.

The A.S. Civil Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. <http://www.abet.org>

### PROGRAM OBJECTIVES

Recent graduates of the ASCET program will be able to achieve the following career and professional accomplishments:

- Demonstrate an appropriate mastery of aspects of civil engineering technology such as construction materials, surveying, structures, soil mechanics, highways, and water resources.
- Demonstrate the ability to utilize accumulated knowledge supplemented with practical experience and continuing education to adapt to changing technology within their chosen area of specialization.
- Demonstrate the ability to communicate effectively by oral and written means and display the interpersonal and leadership skills needed to work and participate effectively in a team environment.
- Exhibit appropriate behavior when dealing with professional, ethical and social issues and display evidence of a commitment to quality and dependability.
- Demonstrate the ability to successfully pursue and complete studies at the baccalaureate level if they so choose.

Course outcomes are assessed by exit examinations in each course. Program outcomes are assessed in designated courses. General education outcomes are assessed by ACT WorkKeys exam.

**Careers in Civil Engineering Technology**

Typical job titles include: Lead Engineering Technician, Assistant Project Engineer, and Design Technician, Surveying Coordinator, Inspector, Lab Manager, Surveying/Party Chief, Survey Technician, Estimator, Traffic/Highway Technician, Environmental Technician.

**TRANSFER BACCALAUREATE OPTIONS**

Graduates of the program may transfer to Bachelor of Sciences program in Engineering Technology-Civil. Advanced Placement Credit for High School/Career-Technical Center/College Programs High school level drafting, surveying, or construction subjects are not necessary for entrance into the Civil Engineering Technology program. Beginning subjects are part of the program. The student who has completed such vocational courses, however, may receive advanced placement. Articulation Edge agreements are in place with various vocational-technical centers. Advanced placement is also available to the student with prior college experience. Please check with the department chair for more information.



## CIVIL ENGINEERING TECHNOLOGY

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
DRFT 120	Drafting I	2
ENGL 101	English Composition I	3
GNST 102	First Year Experience	1
GNET 108	Computer Applications for Technicians (GEC-4)	3
MATH 135	Technical Algebra	3
MATH 140	Trigonometry (GEC 4)	3
CIET 131	Construction Materials	3
	<b>Semester Total</b>	<b>18</b>
<b>Second Semester</b>		
CIET 114	Statics	3
DRFT 121	Drafting II	2
CIET 141	Surveying I	3
ENGL 102	English Composition II (GEC 1)	3
PHYS 101	General Physics (GEC 2)	4
SOCI 130	Diversity in the Workplace (GEC 3)	1
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
CIET 115	Strength of Materials	3
CIET 145	Surveying II	3
CIET 215	Structural Steel Design	3
CIET 230	Hydraulics & Drainage	3
MATH 155	Technical Calculus (GEC 2)	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
CIET 216	Structural Concrete Design	3
CIET 222	Soils and Foundations	3
CIET 245	Highways1	3
PHYS 102	General Physics II (GEC 2)	4
GNET 112	Ethics & Professional Behavior	1
	Technical Elective2	2
	<b>Semester Total</b>	<b>16</b>

# Certificate in Applied Science

## COMPUTER MAINTENANCE & NETWORKING

### PROGRAM DESCRIPTION

The Computer Maintenance and Networking Certificate provide a fast one-year program that allows students to quickly gain the skills necessary to enter the information technology job market. The program provides entry-level coverage of computer hardware, operating systems, networking, programming, web page development, standard computer applications and customer service skills.

Completion of the program prepares students to sit for the Comp TIA A+ and the Cisco Certified Entry Network Technician (CCENT) certification exams.

Graduates are prepared for entry level information technology and help desk positions.

### PROGRAM GOALS AND OBJECTIVES

1. Maintain, repair, and support computer hardware and personal PC and network operating systems in an effective and efficient manner.
2. Design, install, maintain and operate small office and branch level network infrastructure.
3. Install or update and configure computer application software, network security software, and document computer systems and networks.

### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the CCENT (Cisco Certified Entry Networking Technician) certification exam, which assesses student knowledge in a variety of areas of the networking technology field. General education outcomes are assessed by the ACT WorkKeys exit examination.

### ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS

High school computer and networking coursework is not necessary for entrance into the Computer Maintenance & Networking program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience or certifications. Please contact the department chair.

### CAREERS IN COMPUTER MAINTENANCE & NETWORKING TECHNOLOGY

Graduates of this certificate program develop skills for entry level positions involving troubleshooting, repairing, and maintaining personal computers and small business networks.

**COMPUTER MAINTENANCE AND NETWORKING**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
CSCT 218	Scripting (Powershell)	3
ISST 250	Security Fundamentals	3
INFT 110	Computer Architecture & Troubleshooting	4
ENGL 101	English Composition I	3
MATH 130	College Algebra (GEC 2)	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
INFT 121	Network Operating Systems	3
INFT 131	Networking I	4
INFT 132	Networking II	4
INFT 290	Project Management	3
	<b>Semester Total</b>	<b>14</b>

# Associate in Applied Science

## COMPUTER SCIENCE TECHNOLOGY

### MANAGEMENT INFORMATION SYSTEMS

### CONCENTRATION

#### PROGRAM DESCRIPTION

If you are planning a career as a computer professional, opportunities are endless! Almost every company, no matter how big or small, employs computer specialists and most of these companies are always looking for qualified people. The number of programmers, system analysts & hardware, software, networking & security specialists needed to fill available positions will continue to grow. In addition to computer specialists, trained personnel are needed in all fields. Whether one is seeking employment as a teacher, accountant, writer, fashion designer, lawyer or a number of other jobs, one question is frequently asked: What do you know about computers? Interacting with a computer is part of the daily routine for millions of white-and blue-collar workers. No matter the career choice, in all likelihood one will be a frequent user of computers.

The MIS Concentration prepares students for entry level employment in any type of business functional area. Students will be able to design small business systems, write programs in current programming languages, design, implement and use databases and support most of the technical needs of these areas.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, the student will:

- Have fundamental knowledge of the information technology field and most business functions.
- Have skills in at least one current programming language.
- Be able to design, create, maintain, use and support databases.
- Have knowledge of operating systems and basic networking technologies.
- Have skills in project management.

#### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. The student will also be required to submit a portfolio to fulfill general education requirements.

#### TRANSFER BACCALAUREATE OPTIONS

Graduates of this program can seamlessly continue their studies in a +2 MIS program at Marshall University or West Virginia State University.

**COMPUTER SCIENCE TECHNOLOGY  
MANAGEMENT INFORMATION SYSTEMS CONCENTRATION  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
CSCT 101	Introduction to Programming	3
BIOL 101	Principles of Biology (GEC 2)	3
BIOL 102	Principles of Biology Lab	1
HUMN 101	Introduction to Humanities (GEC 3)	3
MATH 130	College Algebra (GEC 2)	3
ENGL 101	English Composition I (GEC 1)	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
A TEC 115	Fundamentals of Business Computer Apps. (GEC 2)	3
CSCT 210	Fundamentals of Operating Systems	3
ECON 201	Principles of Macroeconomics (GEC 4)	3
GNST 102	First Year Experience	1
	Free Elective	
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
BUSN 230	Business Communication and Ethics (GEC 3)	3
INFT 280	Intro to Database Systems (GEC 4)	3
CSCT 260	Visual Basic NET I	3
MGMT 202	Principles of Management (GEC 4)	3
ENGL 102	English Composition II (GEC 1)	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
BUSN 201	Business Law I	3
BUSN 296	Business Statistics	3
CSCT 240	Data Communications and Networking	3
CSCT 282	System Analysis & Design	3
INFT 290	Project management (GEC 4)	3
	<b>Semester Total</b>	<b>15</b>

# Associate in Applied Science

## COMPUTER SCIENCE TECHNOLOGY

### SOFTWARE DEVELOPER CONCENTRATION

#### PROGRAM DESCRIPTION

If you are planning a career as a computer professional, opportunities are endless! Almost every company, no matter how big or small, employs computer specialists and most of these companies are always looking for qualified people. The number of programmers, system analysts and hardware, software, networking and security specialists needed to fill available positions will continue to grow. In addition to computer specialists, trained personnel are needed in all fields. Whether one is seeking employment as a teacher, accountant, writer, fashion designer, lawyer or a number of other jobs, one question is frequently asked: What do you know about computers? Interacting with a computer is part of the daily routine for millions of white-and blue-collar workers. No matter the career choice, in all likelihood one will be a frequent user of computers.

The curriculum is intended to prepare entry-level computer programmers to create or maintain programs and systems for business, industry, health care, education and government service. The curriculum is designed to train both first-time job seekers as well as those currently employed in the field who want to upgrade their knowledge and skills. Graduates should be able to transfer their knowledge of computer systems and languages to different systems as technological changes occur.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, the student will:

- Have a thorough understanding of computer hardware and software principles and functions.
- Have a detailed understanding of the fundamentals of computer programming and knowledge of multiple current programming languages.
- Have knowledge of the client-server model for program design and implementation.
- Have knowledge of object-oriented programming techniques.
- Be knowledgeable of all phases of the systems development life cycle (SDLC).
- Be able to design, create, implement, use and support databases.
- Be familiar with current networking models and network operating systems.

#### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. The student will also be required to submit a portfolio to fulfill general education requirements. A final project will be used to assess the students' ability to perform in the workplace after graduation.

**COMPUTER SCIENCE TECHNOLOGY  
SOFTWARE DEVELOPER CONCENTRATION**

**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
CSCT 101	Introduction to Programming	3
CSCT 103	Critical & Creative Thinking (GEC 4)	3
GNST 102	First Year Experience	1
GNST 103	Classroom Success Strategies	1
GNST 104	Professional Development	1
CSCT 104	Technical Application For Microsoft Office	3
	Restricted Elective	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
CSCT 130	Introduction to Web Design	3
CSCT 131	Content Management Systems	3
CSCT 210	Fundamentals of Operating Systems	3
	Restricted Elective	3
	Natural Science Elective ( GEC 2)	3
ENGL 101	English Composition I (GEC 1)	
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
COMM 100	Oral Communication (GEC 1)	3
INFT 280	Intro to Database Systems (GEC 4)	3
CSCT 260	Visual Basic NET I or CSCT 262 C# Programming	3
	Restricted Elective	3
MATH 130	College Algebra (GEC 2)	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
CSCT 212	Algorithms	3
CSCT 290	Computer Science Capstone	3
CSCT 240	Data Communications and Networking	3
CSCT 282	System Analysis & Design	3
	Social Science Elective (GEC 3)	3
<b>Semester Total</b>		<b>15</b>

**Restricted Electives:**

*CSCI 120 Computer Graphics - Illustrator*  
*CSCI 122 Computer Graphics - InDesign*  
*CSCI 124 Computer Graphics - Photoshop*  
*CSCI 130 Introduction to Web Design*  
*CSCI 131 Content Management Systems*  
*CSCI 244 Data Communications and Networking*

**Programming Electives:**

*CSCI 232 Mobile Application Development*

*CSCI 234 JavaScript I*  
*CSCI 236 PHP Programming I*  
*CSCI 238 ASP.NET I*  
*CSCI 264 Python I*  
*CSCI 266 C++ Programming I*  
*CSCI 262 C# Programming I*  
*CSCI 268 Java I*  
*CSCI 270 Visual Basic .NET II*

# Associate in Applied Science

## COMPUTER SCIENCE TECHNOLOGY

### WEB DESIGN CONCENTRATION

#### PROGRAM DESCRIPTION

If you are planning a career as a computer professional, opportunities are endless! Almost every company, no matter how big or small, employs computer specialists and most of these companies are always looking for qualified people. The number of programmers, system analysts & hardware, software, networking & security specialists needed to fill available positions will continue to grow. In addition to computer specialists, trained personnel are needed in all fields. Whether one is seeking employment as a teacher, accountant, writer, fashion designer, lawyer or a number of other jobs, one question is frequently asked: What do you know about computers? Interacting with a computer is part of the daily routine for millions of white-and blue-collar workers. No matter the career choice, in all likelihood one will be a frequent user of computers.

The Web Design Concentration prepares students for employment in all areas of web design. Individuals can work for a company or independently as an entrepreneur. Students get hands-on experience using the latest in web design software, database software and networking technologies.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, the student will:

- Have fundamental knowledge of the information technology field.
- Have an understanding of computer program design and development using one or more programming languages.
- Have skills in developing and implementing relational databases.
- Understand basic networking technologies.
- Have skills in graphic design.
- Have skills in project management.
- Have skills in designing and developing database-driven Web sites with graphical and multimedia content.

#### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. The student will also be required to submit a portfolio to fulfill general education requirements. A final project will be used to assess the students' ability to perform in the workplace after graduation.



**COMPUTER SCIENCE TECHNOLOGY  
WEB DESIGN CONCENTRATION**

**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
CSCT 101	Introduction to Programming	3
CSCT 103	Critical & Creative Thinking (GEC 4)	3
GNST 102	First Year Experience	1
GNST 103	Classroom Success Strategies	1
GNST 104	Professional Development	1
CSCT 104	Technical Application For Microsoft Office	3
DSGN 142	Introduction to Photoshop	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
CSCT 130	Introduction to Web Design	2
CSCT 131	Content Management Systems	1
DSGN 134	Adobe Illustrator	3
	Restricted Elective	3
	Natural Science Elective ( GEC 2)	3
ENGL 101	English Composition I (GEC 1)	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
COMM 100	Oral Communication (GEC 1)	3
CSCT 280	Database Management Systems	3
CSCT 234	JavaScript I	3
CSCT 232	Mobile Application Development I	3
MATH 130	College Algebra (GEC 2)	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
CSCT 247	PHP Programming I	3
CSCT 290	Computer Science Capstone	3
	Restrictive Elective	3
CSCT 282	System Analysis & Design	3
	Social Science Elective (GEC 3)	3
	<b>Semester Total</b>	<b>15</b>

**Technical Elective:**

*CSCT 104 Technical Applications For Spreadsheets and Databases*

*CSCI 122 Computer Graphics - InDesign*

*CSCT 212 Algorithms*

*CSCT 232 Mobile Application Development*

*CSCI 131 Content Management Systems*

*CSCI 238 ASP.NET I*

*CSCT 244 Data Communications and Networking*

*CSCI 262 C# Programming I*

*CSCI 264 Python I*

*CSCI 266 C++ Programming I*

*CSCI 268 Systems Analysis & Design*

*INFT 290 Project Management*

# Associate in Applied Science

## CONSTRUCTION MANAGEMENT

### PROGRAM DESCRIPTION

The program focuses on several aspects of building design and construction management. The program concentrates on new construction at both residential and commercial levels. It also examines building construction methods and site analysis and introduces construction management. Building science applications, construction scheduling, construction estimating, construction documents, building mechanical and electrical systems and building information modeling software are emphasized during year two.

### PROGRAM LEARNING OUTCOMES

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

- Understand sustainability and how it applies to the design and construction industry.
- Understand the OSHA construction safety requirements.
- Understand construction drawings, prepare sketches and read prints.
- Design and construct assemblies in new construction.
- Understand the basis of building construction.
- Understand building electrical and mechanical systems.
- Understand construction documents, contracts and project delivery.
- Prepare simple construction management plans.
- Develop construction schedules.
- Apply estimating techniques.
- Construct a virtual building model from concept to construction using building information modeling software.

### CAREERS

Most graduates can expect to be employed by a general contractor or construction management company as a field coordinator, project manager, estimator, scheduler, or construction manager.

**CONSTRUCTION MANAGEMENT****ASSOCIATE OF APPLIED SCIENCE**

<b>First Semester</b>		
BDAC 101	Fundamentals of Building Design	3
BDAC 103	Principles of Building Construction I	3
GNST 102	First Year Experience	1
SBLT 101	Introduction to Sustainable Design & Construction	3
MATH 135	Technical Algebra (GEC 2)	3
GNET 123	Construction Safety	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
BDAC 105	Principles of Building Construction II	3
BDAC 107	Site Analysis & Development	3
ENGL 101	English Composition I	3
CMGT 109	Introduction to Construction Management	3
BDAC 106	Printreading	2
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
BDAC 205	Building Science Applications	3
CMGT 208	Construction Scheduling	3
BDAC 210	BIM Fundamentals	3
PHYS 100	Applied Physics	3
BUSN 230	Business Communications and Ethics	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
BDAC 203	Mechanical and Electrical Systems	3
CMGT 223	Construction Estimating	3
CMGT 215	Project Delivery	3
BDAC 211	BIM Management	3
CSCT 103	Critical and Creative Thinking	3
	<b>Semester Total</b>	<b>15</b>

# Associate in Applied Science

## CRIMINAL JUSTICE

### PROGRAM DESCRIPTION

The field of criminal justice involves the three components of the criminal justice system: police, courts and corrections. The academic discipline also includes study of the juvenile justice system and the extent and causes of crime among adults and juveniles. Criminal Justice is an exciting and interesting discipline that can lead to attractive and worthwhile careers.

### PROGRAM GOALS AND OBJECTIVES

- Students will have a fundamental knowledge of the criminal justice system.
- The student will know and understand the basic philosophies behind policing, corrections, juvenile justice, probation, parole and the court system.
- The student will have current information on trends in criminal justice.
- The student will understand the need for lifelong learning, as a result of the changing trends and laws in the U.S.
- The student will be exposed to a wide variety of situations in the criminal justice field and be able to use the knowledge to better understand the situation and develop the correct response of the criminal justice professional.

### TRANSFER BACCALAUREATE OPTIONS

BVCTC has an articulation agreement that, upon completion of the Associate's degree from BVCTC, college credits earned will transfer to West Virginia State University for students pursuing a Baccalaureate degree.

### CAREERS

Criminal justice continues to provide employment opportunities and is predicted to do so in the future. Employment is available at the local, state and federal levels of the criminal justice, and the juvenile justice system. An associate degree in criminal justice will provide students with a competitive advantage.

**CRIMINAL JUSTICE**  
**ASSOCIATE OF APPLIED SCIENCE**

<b>First Semester</b>		
GNST 110	Personal Leadership	3
ENGL 101	English Composition I	3
CRJU 101	Introduction to Criminal Justice*	3
CRJU 204	Juvenile Justice*	3
PSYC 101	General Psychology <b>OR</b>	
SOCI 101	Introduction to Sociology	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
A TEC 115	Fundamentals Of Business Computer Apps	3
CRJU 230	Criminology*	3
CRJU 223	Police and Society*	3
CRJU 224	Punishment and Corrections*	3
ENGL 102	English Composition II <b>OR</b>	
BUSN 230	Business Communications and Ethics	3
	<b>Semester Total</b>	<b>15</b>
<b>Summer Semester</b>		
CRJU 200	Criminal Justice Internship* <b>OR</b> Approved Elective	3
	<b>Semester Total</b>	<b>3</b>
<b>Third Semester</b>		
MATH 113	Mathematical Reasoning	3
COMM 100	Oral Communications	3
CRJU 213	Race and Gender in Criminal Justice*	3
CRJU 211	Drugs and Society*	3
CRJU 207	Criminal Law	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
HUMN 101	Introduction to Humanities	3
ELEC	Natural Science Elective	3
CRJU 226	Court Systems in the U.S.*	3
CRJU 262	Contemporary Issues in Criminal Justice*	3
	<b>Semester Total</b>	<b>12</b>

*\*Denotes courses offered only on the South Charleston, WV campus.*

# Certificate in Applied Science

## CRIMINAL JUSTICE

### PROGRAM DESCRIPTION

This certificate program is designed for those individuals seeking training/education opportunities to enhance their skills and knowledge in the criminal justice field. It provides a basic knowledge of the police, court and correctional systems and theories of criminal behavior.

### PROGRAM GOALS AND OBJECTIVES

- Students will have a fundamental knowledge of the criminal justice system.
- The student will know and understand the basic philosophies behind policing, corrections, juvenile justice, probation, parole and the court system.
- The student will understand the need for lifelong learning, as a result of the changing trends and laws in the U.S.

### CRIMINAL JUSTICE CERTIFICATE IN APPLIED SCIENCE

First Semester		
CRJU 101	Introduction to Criminal Justice*	3
CRJU 204	Juvenile Justice*	3
HUMN 101	Introduction to Humanities	3
ENGL 101	English Composition I	3
ATEC 115	Fundamentals Of Business Computer Apps	3
<b>Semester Total</b>		<b>15</b>
Second Semester		
CRJU 226	Punishment and Corrections*	3
CRJU 230	Criminology*	3
CRJU 223	Police and Society*	3
MATH 113	Mathematical Reasoning	3
COMM 100	Oral Communications	3
<b>Semester Total</b>		<b>15</b>

*\*Denotes courses offered only on the South Charleston campus.*

# Associate in Applied Science

## CYBER SECURITY TECHNOLOGY

### PROGRAM DESCRIPTION

The Associate of Applied Science degree in CYBER SECURITY (AAS-ISST) is a two-year program that prepares graduates to enter the field of cyber security, (information technology with an concentration on information system security and data integrity). The program provides a general background in computer repair; computer networking; internetworking; enterprise computing practices; implementing and maintaining security on computers and networking equipment; and assessing security risks. The breadth of coverage produces a multi-skilled entry-level information technology “jack of all trades” with a high degree of career flexibility in large business organizations and the ability to independently handle the information technology needs of small and medium size businesses.

### PROGRAM GOALS AND OBJECTIVES

In addition to the learning outcomes set forth in the general education policy for BridgeValley Community and Technical College for Associate of Science degrees, the learning outcomes of the Associate of Applied Science in Computer and Information Technology program prepare students to:

1. Install, configure, maintain, repair, and support computer hardware and software on workstation and server platforms in an effective and efficient manner.
2. Design, install, maintain and operate small office and branch level network infrastructure.
3. Install, update and configure computer application software, network security software, and document computer systems and networks.
4. Design, implement and maintain computer system and network security.
5. Assess and alleviate potential security threats.
6. Maintain information integrity and evaluate the results of security breaches.
7. Function effectively in multidisciplinary teams.
7. Demonstrate an ability to communicate effectively in written, oral, and graphical formats appropriate for the information technology discipline.
8. Appreciate the need for life-long learning and continue to maintain and develop their technical skills.
9. Exhibit a broad education and knowledge of contemporary issues, such as diversity and sustainability, in a global and societal context.
10. Demonstrate a general knowledge of professional behavior and ethical responsibility toward employers, customers, and society.

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the CCENT, CCNA and Cisco CCNA Security national certification exams. The student will also be required to submit a portfolio to fulfill general education requirements.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level computer science, computer repair (A+), or computer networking (Cisco) subjects are not necessary for entrance into the Computer & Information Technology program. Beginning subjects are part of the program. The student who has completed such vocational courses, however, may receive advanced placement. Articulation, vocational or EDGE, and dual credit agreements are in place with various high schools and vocational-technical centers. Advanced placement is also available to the student with prior college experience. Please contact the department chair for any specific questions .

**CAREERS**

Graduates of the program typically have strengths in building, testing, operating, maintaining and securing computer networks and computer systems. Typical graduates obtain entry level positions in information technology departments and computer/networking consulting firms.



**CYBER SECURITY TECHNOLOGY**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
GNST 120	First Year Experience	1
INFT 110	Computer Architecture & Troubleshooting	4
	GEC 3 Elective	3
MATH 130	College Algebra (GEC 2)	3
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
ENGL 102	English Composition II (GEC 1)	3
INFT 121	Network Operating Systems	3
INFT 131	Networking I (GEC4)	4
INFT 132	Networking II	4
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
ECET 260	Telecommunications	4
INFT 231	Networking III	4
INFT 232	Networking IV	4
INFT 280	Intro to Database Systems (GEC 4)	3
ISST 250	Security Fundamentals	3
	<b>Semester Total</b>	<b>18</b>
<b>Fourth Semester</b>		
ISST 262	Computer Forensics	4
INFT 260	Disaster Recovery	3
INFT 290	Project Management (GEC 4)	3
INFT 295	Seminar	1
ISST 252	Network Security	4
	<b>Semester Total</b>	<b>15</b>

**REMARKS**

1. *Humanities / social science electives must meet the general education requirements for graduation. Consult your academic advisor.*
2. *Those planning to enter a baccalaureate program are advised to take an eight-hour laboratory science sequence. Additional laboratory science electives can be taken as technical electives.*
3. *Technical electives should be selected with program advisor approval.*

# Associate in Science

## DENTAL HYGIENE

### PROGRAM DESCRIPTION

A dental hygienist is a preventive oral health professional licensed to provide educational, clinical, and therapeutic services to the public. The Dental Hygiene program at BridgeValley is designed to prepare students for a career in dental hygiene with concentration on educating students for clinical dental hygiene practice and transfer to baccalaureate studies. Faculty and students are committed to a culture of excellence in education, service and patient care while maintaining the highest levels of professionalism and teamwork. The program, fully accredited by the American Dental Association Commission on Dental Accreditation, is normally two full academic years with 72 hours of credit course work and many hours of clinical practice.

### PROGRAM GOALS AND OBJECTIVES

#### Mission Statement

The program is designed to prepare students for a career in dental hygiene with emphasis on educating students for clinical dental hygiene practice and preparation for future baccalaureate studies. Faculty and students are committed to a culture of excellence in education, service and patient care while maintaining the highest levels of professionalism and teamwork.

#### Program Goals

- Provide a quality educational program meeting the standards of the Commission on Dental Accreditation and reflecting relevant and current dental hygiene practice to ensure competent individuals for licensure and clinical practice of dental hygiene.
- Provide opportunities for quality patient care experiences in the dental hygiene clinic and off campus enrichment sites for diverse populations.
- Encourage participation in community service and health promotion initiatives.
- Provide an academic experience which allows students to pursue advanced degrees.
- Promote an environment committed to professionalism, career development and lifelong learning.

#### Program Competency Statements

The BridgeValley Community and Technical College Dental Hygiene Program Competencies identify knowledge, skills and behaviors graduates must possess as entry level practitioners. The statements are utilized by faculty to assess, develop and modify curriculum and educational methodologies to ensure the graduate is prepared to assume their role as a competent member of the dental health care team. Competency statements are identified in 4 domains: Professionalism, Health Promotion and Disease Prevention, Community Involvement and Patient Care.

**PROGRAM ASSESSMENT**

The Dental Hygiene program is committed to assessment of faculty effectiveness and student performance in support of our emphasis on excellence in dental hygiene education. Program outcomes are assessed systematically and comprehensively by didactic course reviews, clinical performance evaluations, externally administered board examinations, advisory committee/employer feedback, patient surveys, student/graduate surveys and faculty evaluation. General outcomes are assessed via portfolio.

**TRANSFER BACCALAUREATE OPTION**

- WVU Tech – Health Services Administration
- WVU Morgantown – BA Pathway
- WVU School of Dentistry – Dental Hygiene Degree Completion
- Other online BS/BA options in dental hygiene, health care or related majors

**OTHER INFORMATION****Admissions**

The Dental Hygiene program is a limited enrollment program which admits one class each fall semester. All transcripts, essays, recommendations, shadowing documentation and related materials are due in the admissions office by January 31st for consideration for fall admission.

Admission criteria may be found in the Admissions section for specific criteria.

Blood borne Pathogens/Radiation Safety/HIPAA/Ethics Policies:

Department policies related to blood borne pathogens, radiation safety, HIPAA and Ethics are available for review at <http://www.bridgevalley.edu/dental-hygiene-policies> .

**CAREERS**

Dental hygienists may assume the roles of clinician, educator, researcher, administrator/manager and advocate. Dental hygienists are employed clinically in private dental practice, hospitals, clinics, institutions, public and private schools, and the armed forces. Dental hygienists are also employed as health educators in various public health settings.

*\*\*\* If the student earns a D or F in any DENT-Dental Hygiene course, CHEM 110/111, BIOL 210 or BIOL 230/231, the student is automatically dismissed from the program and must apply for readmission. If readmitted, the student must retake the course applying the "D and F repeat rule". The student who earns a D or F in a DENT-Dental Hygiene course may only repeat the course one time.*

**DENTAL HYGIENE**  
**ASSOCIATE IN SCIENCE**

<b>First Semester</b>		
BIOL 210	Anatomy & Physiology*	4
CHEM 110	Fundamentals of Chemistry*	3
CHEM 111	Fundamentals of Chemistry Lab	1
DENT 141	Dental Radiography	2
DENT 132	Dental Hygiene I	5
DENT 152	Preventive Concepts	1
DENT 125	Embryology, Histology & Anatomy	3
	<b>Semester Total</b>	<b>19</b>
<b>Second Semester</b>		
BIOL 230	Principles of Microbiology*	3
BIOL 231	Principles of Microbiology Lab*	1
ENGL 101	English Composition I*	3
DENT 126	Head & Neck Anatomy	2
DENT 144	Periodontics I	1
DENT 151	Nutrition	2
DENT 156	Pharmacology	2
DENT 153	Advanced Dental Hygiene Procedures	1
DENT 134	Dental Hygiene II Clinic	3
	<b>Semester Total</b>	<b>18</b>
<b>Summer Semester</b>		
ENGL 202	Business & Professional Writing*	
PSYC 101	Psychology*	3
	<b>Semester Total</b>	<b>3</b>
<b>Third Semester</b>		
DENT 256	Dental Hygiene Care Planning	2
DENT 251	Local Anesthesia/Pain Control	2
DENT 235	Periodontics II	1
DENT 225	Pathology	2
DENT 246	Dental Materials	2
DENT 260	Dental Health Education	2
DENT 237	Dental Hygiene III Clinic	4
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
SOCI 101	Sociology*	3
DENT 258	Ethics & Practice Management	2
DENT 240	Applied Concepts in Clinical Dental Hygiene	1
DENT 262	Community Health	3
DENT 239	Dental Hygiene IV Clinic	5
	<b>Semester Total</b>	<b>14</b>

\*Students are STRONGLY encouraged to complete these requirements before admission to the program.

\*\*If the student so chooses, summer courses may be scheduled during regular semesters when available.

## Associate in Applied Science

### DIAGNOSTIC MEDICAL SONOGRAPHY

#### PROGRAM DESCRIPTION

The Associate in Applied Science degree for Diagnostic Medical Sonography supports student success through the provision of quality-driven comprehensive didactic and clinical instruction in sonography. A diagnostic medical sonographer serves as a highly-skilled professional who utilizes specialized equipment to produce images of structures inside the human body that aid physicians in medical diagnoses. Sonographic specialties currently offered include:

- General Sonography: Abdomen, Obstetrics and Gynecology, Superficial Structures, and Small Parts
- Vascular Technology: Arterial and Venous Systems

#### PROGRAM GOALS AND OBJECTIVES

- To provide an educational culture where everyone feels they can work and learn in a safe and caring environment that respects and treats all individuals with dignity and civility.
- To graduate competent, employable, entry-level sonographers in accordance with the criteria established by the Joint Review Committee on Education under the auspices of the Commission for Accreditation of Allied Health Educational Programs.
- To foster student's communication and critical thinking skills so they will realize their potential as key role players in the realm of health care, diagnostic medical imaging, and direct patient care.
- To develop student's technical skills to include empathy and respect for the provision of quality care to all individuals regardless of race, gender, sexuality, physical or mental ability, socioeconomic status, educational backgrounds, and/or cultural beliefs.
- To graduate health care professionals who act responsibly, practice principles of ethics, exercise integrity in decision-making, and who are law abiding citizens.
- To support the student's awareness and commitment toward understanding and implementing the Code of Conduct and the Code of Ethics as described by the Society of Diagnostic Medical Sonography.
- To reinforce to student's the importance of striving for continual improvement through education and active participation in the profession

**PROGRAM ASSESSMENT**

The program will periodically assess its effectiveness in achieving its stated goals and learning domains. The results of this evaluation will be reflected in the review and timely revision of the program as needed. Outcomes assessments include, but are not limited to: national credentialing examination performance, programmatic retention/attrition, graduate satisfaction, employer satisfaction, job placement and/or continuing education in a related field.

**CAREERS**

Sonography growth is projected to continue in the future with employment opportunities for qualified sonographers in both urban and rural areas. Sonographers can choose to work in clinics, hospitals, private practice physician offices, public health facilities, laboratories, and other medical settings performing examinations in their areas of specialization. Career advancement opportunities exist in education, administration, research, and in commercial companies as education/application specialists, sales representatives, and technical advisors.

Pre-requisites		
ENGL 101	English Composition I	3
MATH 130	College Algebra	3
BIOL 220	Human Anatomy with Lab	4
BIOL 221	Human Physiology with Lab	4
PHYS 101	General Physics or Introduction to Physics (PHYS 100)	3
PSYC	General Psychology or Lifespan Devel (PSYC 201)**	3
DMSU 100	Introduction to Sonography	2

\*Note: PSYC 101/PSYC 201 may be taken after admission into the sonography program.

\*\*Note: Successful completion of DMSU 100-Introduction to Sonography does not guarantee acceptance into the Sonography Program.

*References*

1) Commission on Accreditation of Allied Health Programs for Diagnostic Medical Sonography accessed @<http://www.jrcdms.org/pdf/DMSStandards.pdf>

2) Society of Diagnostic Medical Sonographers accessed @ [www.sdms.org](http://www.sdms.org)

\*Note: Program accreditation will be applied for before the first group of DMS students graduate

**DIAGNOSTIC MEDICAL SONOGRAPHY****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
DMSU 230	Acoustical Physics and Instrumentation I	3
DMSU 220	Abdominal/Pelvic Sonography	5
DMSU 200	Sonographic Sectional Anatomy	3
DMSU 221	Superficial/Small Parts Sonography	1
	<b>Semester Total</b>	<b>12</b>
<b>Second Semester</b>		
DMSU 222	Sonography of Obstetrics and Gynecology	5
DMSU 231	Acoustical Physics and Instrumentation II	1
DMSU 250	Sonography Practicum I (Clinical)	6
	<b>Semester Total</b>	<b>12</b>
<b>Summer Semester</b>		
DMSU 240	Introduction to Vascular Technology	2
	<b>Semester Total</b>	<b>2</b>
<b>Third Semester</b>		
DMSU 210	Sonographic Pathophysiology	2
DMSU 241	Vascular Technology	4
DMSU 251	Sonography Practicum II (Clinical)	6
	<b>Semester Total</b>	<b>12</b>
<b>Fourth Semester</b>		
DMSU 260	Advanced Diagnostic Studies	4
DMSU 261	Advanced Ultrasound Review (Capstone)	2
DMSU 252	Sonography Practicum III (Clinical)	6
	<b>Semester Total</b>	<b>12</b>

Note: All pre-requisite classes (except DMSU 100) are required for CAAHEP-JRC-DMS accreditation with the exception of PSYC 101/201-which is included to meet GEC 3 requirement

# Associate in Applied Science

## Certificate in Applied Science

### DIESEL TECHNOLOGY

#### PROGRAM DESCRIPTION

This program is designed to prepare graduates for positions as diesel technicians for both on and off highway equipment. The program has been developed in response to industry demand in conjunction with various consortium members. This program offers individuals the opportunity to complete the full outline of courses listed below on site at BridgeValley Community and Technical College or transfer diesel technology credit from various Career Technical Centers which offer similar programs. Credit may also be transferred from individuals completing industry training from Caterpillar, Komatsu, Cummins or Detroit. Individuals completing industry based training must confer with the program advisor for credit equivalency. Students may also be interested in the Entrepreneurship skill sets offered by the Business & Health Management department.

#### PROGRAM GOALS AND OBJECTIVES

In addition to the learning outcomes set forth in the general education core curriculum for the associate degree, specific outcomes for this program have been established.

Upon completion of this program, the student should be able to:

1. Apply industry-based safety standards in the work environment.
2. Understand two-and four-stroke engine operation, electrical and hydraulic system principles and mechanical operations.
3. Apply principles of suspension and steering, brakes, drive train, and computer analysis.
4. Perform general maintenance and troubleshooting.
5. Practice approved safety procedures in various work situations.
6. Read and interpret vehicle and component service manuals and write clear, accurate, and complete service reports.
7. Diagnose and repair mechanical and electronic fuel injection malfunctions.
8. Demonstrate the correct use of basic hand tools, special tools, and testing equipment.
9. Perform vehicle safety inspections as required by state and federal laws.
10. Overhaul and tune diesel engines.
11. Test, adjust, and align truck suspension systems.
12. Diagnose and repair common malfunctions to brakes, air conditioning, and refrigeration systems.
13. Interpret schematics and wiring diagrams, test starting, charging, lighting, and accessory systems.
14. Understand the potential health and safety hazards in the work place and how to properly document and perform corrective action.



15. Apply basic electronic principles to engine control and data storage.

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the WorkKeys Applied Technology exit exam, which measures the skills people use when they solve problems with machines and equipment found in the workplace. The primary areas of assessment are electricity, mechanics, fluid dynamics, and thermodynamics. General education outcomes are assessed by the ACT WorkKeys exit examination.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level diesel technology coursework is not necessary for entrance into the program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience. Please contact the department chair.

**CAREERS IN DIESEL**

Diesel service technicians and mechanics have opportunities in a wide range of industries such as truck transportation, government, repair and maintenance, mining, timber, construction, railroad, marine, and manufacturing. Typical job titles include: bus mechanic, diesel mechanic, diesel technician, fleet mechanic, general repair mechanic, mechanic, service technician, trailer mechanic, transit mechanic, truck mechanic, shop foreman, and service manager.

The median national wage for Diesel service technician is \$42,320 per year or \$20.35 per hour as reported by the U.S. Department of Labor Bureau of Labor Statistics (BLS) May 2012.

**DIESEL TECHNOLOGY**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
DESL 112	Diesel Engine Theory & Operation	2
DESL 114	Diesel Engine Valvetrain & Operation	2
DESL 121	Fundamentals of Electricity	1
DESL 122	Electrical Production, Storage & Usage	1
DESL 123	Chassis Electrical Systems	1
GNST 102	First Year Experience	1
MATH 115	Applied Math for Technicians (GEC-2)	3
WLDT 101	Introduction to Welding Processes	3
<b>Semester Total</b>		<b>14</b>
<b>Second Semester</b>		
DESL 113	Diesel Engine Inspection & Reassembly	2
DESL 115	Diesel Engine Accessories	2
DESL 120	Suspension & Steering	3
ENGL 101	English Composition I (GEC-1)	3
GNST 107	Introduction to Computer Applications for Technicians	3
GNST 122	Industrial Safety / OSHA 30	3
<b>Semester Total</b>		<b>16</b>
<b>Third Semester</b>		
DESL 231	Manual Transmissions	1
DESL 232	Automatic Transmissions	1
DESL 233	Differentials of Drive Axles	1
DESL 240	Air Brakes	2
DESL 241	Hydraulic Brakes	2
ENGL 202	Business and Professional Writing (GEC-1)	3
PHSC 100	Physical Science (GEC-2)	3
PHSC 101	Physical Science Lab (GEC-2)	1
	Technical Elective**	3
<b>Semester Total</b>		<b>17</b>
<b>Fourth Semester</b>		
BUSN 120	IPR: Interviewing Strategies	1
DESL 130	Hydraulics (GEC-4)	4
DESL 250	System Preventative Maintenance	1
DESL 260	Mobile Air Conditioning Systems	1
DESL 270	Advanced Electronic Engine Controls	1
DESL 280	Internship	1
DESL 298	Senior Seminar	1
Elective	GEC-3 Elective	3
<b>Semester Total</b>		<b>13</b>
<b>Technical Elective</b>		
ECET	Any ECET course	
INFT	Any INFT course	
MEET	Any MEET course	
WLDT	Any WLDT course	
CHEM 110	Fundamentals of Chemistry	
GREN 101	Introduction to Sustainability	
MGMT-151	Supervisory Management	

**DIESEL TECHNOLOGY**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
DESL 112	Diesel Engine Theory & Operation	2
DESL 114	Diesel Engine Valvetrain & Operation	2
DESL 121	Fundamentals of Electricity	1
DESL 122	Electrical Production, Storage & Usage	1
DESL 123	Chassis Electrical Systems	1
DESL 231	Manual Transmissions	1
DESL 232	Automatic Transmissions	1
DESL 233	Differentials of Drive Axles	1
DESL 240	Air Brakes	1
MATH 115	Applied Math for Technicians (GEC-2)	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
DESL 113	Diesel Engine Inspection & Reassembly	2
DESL 115	Diesel Engine Accessories	2
DESL 120	Suspension & Steering	3
DESL 130	Hydraulics (GEC-4)	4
ENGL 101	English Composition I (GEC-1)	3
BUSN 120	IPR: Interviewing Strategies	1
	<b>Semester Total</b>	<b>15</b>

## Associate in Science

# DRAFTING & DESIGN ENGINEERING TECHNOLOGY

### PROGRAM DESCRIPTION

The Associate in Science degree in Drafting and Design Engineering Technology (ASDDET) is a two-year program that combines computer-aided drafting (CAD) with technical knowledge that allows the graduate to be employed in nearly any drafting and/or design position. Because of the diverse nature of the program, graduates have opportunities to work in mechanical, civil, construction, architectural, mining, and electrical related industries. This program also makes it possible for graduates to more easily advance into a supervisory position in the drafting and design field. The program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. <http://www.abet.org>

Job titles of recent graduates have included: CAD Operator, Designer, Drafting Technician, Estimator/Detailer.

### PROGRAM OUTCOMES

Graduates of the ASDDET program will be able to achieve the following career and professional accomplishments:

1. Use computers, peripherals, and software applications commonly found in the drafting and design field to successfully complete tasks within their chosen field of employment.
2. Apply appropriate theory, knowledge, and design standards of conventional practice to the preparation of documentation drawings.
3. Work independently or as a member of a design team to develop design solutions to a problem; refine those solutions; analyze those design solutions; and, be able to communicate the appropriate implementation of the final solution.
4. To be an employee who manifests qualities of ethical, professional, and social responsibility; who will also exhibit a desire for life-long learning and service to the community.
5. To be prepared to pursue and complete studies at the baccalaureate level if they so choose.

### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the NOCTI CAD exit exam, which measures the skills needed by CAD found in the workplace. The primary areas of assessment are identifying and using hardware, interpreting blueprints, creating and manipulating mechanical drawings, drawing and designing assemblies, and using 3-D modeling. General education outcomes are assessed by the ACT WorkKeys exit examination.

**ADVANCED PLACEMENT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level drafting or design coursework is not necessary for entrance into the ASDDET program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience. Please contact the department chair.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY**  
**ASSOCIATE IN SCIENCE**

<b>First Semester</b>		
DRFT 120	Drafting I	2
ENGL 101	English Composition I (GEC-1)	3
GNET 108	Basic Computer App. (GEC-4)	3
GNST 102	First Year Experience	1
MATH 135	Technical Algebra	3
MEET 121	Manufacturing Processes I	3
Elective	GEC-3 Elective	1
<b>Semester Total</b>		<b>16</b>
<b>Second Semester</b>		
CIET 114	Statics	3
DRFT 121	Drafting II	2
DRFT 214	Computer Graphics	3
ENGL 102	English Composition II (GEC-1)	3
MATH 140	Trigonometry (GEC-2)	3
PHYS 101	General Physics I (GEC-2)	4
<b>Semester Total</b>		<b>18</b>
<b>Third Semester</b>		
DRFT 202	Architectural Drafting	3
CIET 115	Strength of Materials	3
MEET 225	Mechanical Design I	3
DRFT 286	Parametric Modeling	3
	Technical CAD Elective DRFT 287 PDMS	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
DRFT 204	Structural Drafting	3
DRFT 216	Engineering Design Graphics	3
PHYS 102	Introductory Physics II	4
	Technical Elective**	3
MATH 117	Technical Calculus	3
<b>Semester Total</b>		<b>16</b>

**Technical CAD Electives**

DRFT 201	Electrical & Electronic Drafting	3
DRFT 212	Piping and Sheet Metal Drafting	3
DRFT 284	Microstations	3
DRFT 285	Land & Topographic Design	3
DRFT 287	Illustrations for Presentation	3
DRFT 288	SurvCAD	3
DRFT 290	Internship in CAD	1 to 3
DRFT 289	GPS/GIS Systems	3

**Technical Elective**

CIET	Any CIET course not listed above
ELET	Any ELET course
GREN	Any GREN course
INFT	Any INFT course
MEET	Any MEET course
WLDT	Any WLDT course

## Associate in Applied Science Certificate in Applied Science EARLY CHILDHOOD EDUCATION

### PROGRAM DESCRIPTION

The A.A.S. in Early Childhood Education degree is a 60 credit hour program designed to prepare students for a career in the early childhood field as teachers in early childhood programs, or aids in Pre-K and Head Start Programs. Students will study child growth and development as well as learn to observe young children in order to plan, prepare and implement appropriate curriculum and environments for early childhood programs. Students will have opportunities to gain practical experience working with children in a variety of settings.

NOTE: Students in this program must pass a background check during the first semester of their program.

### PROGRAM GOALS AND OBJECTIVES

The A.A.S. in Early Childhood Education will educate and prepare students interesting in working with young children and families in diverse learning environments, or to further their own education as early childhood professionals.

### PROGRAM LEARNING OUTCOMES

Upon successful completion of all program requirements, graduates will be able to:

- Identify and integrate theory and practice in early childhood programs serving diverse populations of children and their families.
- Articulate a personal philosophy of Early Childhood Education.
- Plan, prepare and implement appropriate curriculum for a high quality early childhood program based on a knowledge of child development and best practices.
- Plan, create and evaluate a learning environment that supports the whole child.
- Demonstrate appropriate communication skills, teaching methods and professional conduct while working with young children
- Identify sources and participate in opportunities available for professional growth.
- Demonstrate an understanding of all West Virginia Child Care Licensing regulations for center employees.
- Demonstrate ability to implement West Virginia Early Learning Standards while working with young children.

**EARLY CHILDHOOD EDUCATION**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MATH 130	College Algebra OR	3
MATH 113	Mathematical Reasoning	3
GNST 102	First Year Experience	1
PSYC 201	Life Span Development	3
EDUC 120	Foundations of Early Childhood	3
ATEC 115	Fundamentals of Business Computer Applications	3
<b>Semester Total</b>		<b>19</b>
<b>Second Semester</b>		
ENGL 102	English Composition II	3
SCI	Any lab science	4
COMM 100	Oral Communications	3
EDUC 101	Healthy Environments for Young Children	3
EDUC 225	Early Childhood Development	3
PHED 104	First Aid	1
<b>Semester Total</b>		<b>17</b>
<b>Third Semester</b>		
EDUC 110	Family Relationships	3
EDUC 115	Infant and Toddler Development	3
EDUC 220	Integrating Technology in the Classroom	3
EDUC 291	Pre-K Curriculum and Methods	3
<b>Semester Total</b>		<b>12</b>
<b>Fourth Semester</b>		
EDUC 260	Special Needs in Early Childhood	3
EDUC 290	Language and Literacy	3
EDUC 292	Assessing Young Children	3
EDUC 295	Early Childhood Education Capstone	4
<b>Semester Total</b>		<b>13</b>



**EARLY CHILDHOOD EDUCATION**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MATH 113	Mathematical Reasoning OR	
MATH 130	College Algebra	3
PSYC 201	Life Span Development	3
EDUC 110	Family Relationships	3
EDUC 120	Foundations of Early Childhood	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
EDUC 225	Early Childhood Education	3
EDUC 260	Special Needs in Early Childhood Development	3
EDUC 290	Language and Literacy for Young Children	3
EDUC 291	Early Childhood Curriculum/Methods	3
EDUC 292	Assessment for Young Children	3
	<b>Semester Total</b>	<b>15</b>

## Associate in Science

# ELECTRICAL ENGINEERING TECHNOLOGY

### PROGRAM DESCRIPTION

The Associate of Science in Electrical Engineering Technology (AS-EET) degree is a two-year program that provides engineering technicians skilled in electronics, power generation and distribution, communications, instrumentation, and other fields to meet the demands of local industry. The program provides a broad background in electricity, electronics, communications, industrial control and electrical machinery. Technical electives, certificate, and skill set programs enable students to tailor their education program for careers in specific industries. The program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. <http://abet.org>

### PROGRAM GOALS AND OBJECTIVES

In addition to the learning outcomes outlined in the BCTC general education policy graduates of the program will be able to:

1. Apply principles of mathematics and science to perform calculations and solve problems typically encountered in the electrical engineering technology field. (TAC/ABET: Criterion 3 Outcomes a, b, e; Program Criteria Outcome a, b)
2. Demonstrate the ability to identify, formulate, and present creative solutions to technical problems in the electrical engineering technology field. (TAC/ABET: Criterion 3 Outcome a, b, e; Program Criteria Outcome a, b)
3. Function competently in a laboratory or field setting by taking measurements, operating technical equipment, critically examining experimental results, and documenting them in a suitable manner. (TAC/ABET: Criterion 3 Outcomes a, b, c, f; Program Criteria Outcome a, b)
4. Use modern computational tools to solve problems, including scientific calculators, general purpose computer programs, and discipline specific software applications. (TAC/ABET: Criterion 3 Outcomes a, b, e; Program Criteria Outcome a, b)
5. Function effectively in multidisciplinary teams and demonstrate an ability to communicate effectively in written, oral, and graphical formats. (TAC/ABET: Criterion 3 Outcomes d, f)
6. Appreciate the need for life-long learning to maintain and develop their technical skills.
  - a. (TAC/ABET: Criterion 3 Outcome g)
7. Exhibit a broad education and knowledge of contemporary issues in a global and societal context and demonstrate a general knowledge of professional behavior and ethical responsibility toward employers, customers, and society. (TAC/ABET: Criterion 3 Outcomes h, i)

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Manufacturing Engineers EET Outcomes Assessment exit exam, which assesses student knowledge in a variety of areas of the electrical engineering technology field. General education outcomes are assessed by the General Education Portfolio.

**TRANSFER BACCALAUREATE OPTION**

Graduates of this program can seamlessly continue their studies in +2 Bachelor of Science programs at various other institutions in Electronic or Electrical Engineering Technology, Engineering Technology, Industrial Technology or Technology Management.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level electronic, electrical or computer-oriented coursework is not necessary for entrance into the Electrical Engineering Technology program. Introductory subjects are incorporated as part of the program. Students that have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocational-technical centers. Advanced placement is also available for students with prior college experience. Please contact the department chair.

**CAREERS IN ELECTRICAL ENGINEERING TECHNOLOGY**

The program prepares graduates with the technical skills necessary to enter careers in the design, application, installation, manufacture, testing, operation and maintenance of electrical and electronic systems. Job titles of recent graduates have included: Electronic Technician, Management Associate, Electrical Technician, Engineering Technician, and Engineering Test Technician.

## ELECTRICAL ENGINEERING TECHNOLOGY

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
ECET 110	DC Circuit Analysis	4
GNST 102	First Year Experience	1
GNET 111	Public Speaking for Technology	1
DRFT 120	Drafting I	2
ENGL 101	English Composition I (GEC 1)	3
MATH 135	Technical Algebra	3
MATH 140	Trigonometry (GEC 4)	3
	<b>Semester Total</b>	<b>17</b>
<b>Second Semester</b>		
ECET 115	AC Circuit Analysis	4
ECET 120	Analog Devices I	4
ENGL 102	English Composition II (GEC 1)	3
MATH 155	Technical Calculus (GEC 2)	3
PHYS 101	General Physics I (GEC 2)	4
	<b>Semester Total</b>	<b>18</b>
<b>Third Semester</b>		
ECET 220	Analog Devices II	4
ECET 230	Digital Devices	4
ECET 260	Telecommunications	4
ECET 280	Programmable Logic Controllers	3
	GEC 3 Elective	3
	<b>Semester Total</b>	<b>18</b>
<b>Fourth Semester</b>		
ECET 235	Microcontrollers	3
ECET 270	Power Systems & Industrial Devices	4
ECET 290	Seminar	1
PHYS 102	General Physics II (GEC-2)	4
	Technical Elective(s)	2
	<b>Semester Total</b>	<b>14</b>

# Associate in Applied Science

## ELECTRICAL MECHANICAL INSTRUMENTATION TECHNOLOGY

### PROGRAM DESCRIPTION

Electrical Mechanical Instrumentation Technology will provide students with an accelerated path to enter careers in technical fields such as electrical, mechanical, electrical & instrumentation, process and maintenance technician in the Chemical, Energy, Oil & Gas, and Water/Wastewater industries. This program will be offered in accelerated, block schedules to help dislocated and unemployed students return to work more quickly. The Mechatronics Certificate will prepare Gestamp's maintenance team to enter into the Gestamp Mechatronics Apprenticeship Program.

### PROGRAM GOALS AND OBJECTIVES

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

- Work safely in an automated manufacturing and process environment, including the proper use of personal protective equipment (PPE)
- Install, maintain, calibrate and effectively troubleshoot electrical, mechanical, and instrumentation devices
- Read and understand Piping and Instrumentation Diagrams, associated drawings and documentation
- Identify, maintain and troubleshoot electrical and mechanical systems used in a process control loop, such as valves, pumps, sensors, variable frequency drives, motor circuits, and controllers
- Install, repair and replace tubing in a process environment
- Gain hands-on experience installing, configuring, programming and troubleshooting programmable logic controllers (PLCs) and Human Machine Interface (HMI) Display
- Understand fundamental principles and methods of measuring flow, level, pressure and temperature

### CAREERS

This is accelerated program will prepare completers for entry-level positions in manufacturing such as maintenance technicians, electrical technicians, field technicians, preventive maintenance technicians and mechatronics technicians.

**ELECTRICAL MECHANICAL INSTRUMENTATION TECHNOLOGY**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
MATH 115	Applied Technical Math	3
GNST 102	First Year Experience	1
MECH 105	Technical Calculations	2
GNET 122	Industrial Safety Fundamentals	3
MECH 120	Electrical Components	3
MECH 130	Mechanical Components and Electrical Drives	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
PWPT 107	Electrical Controls	3
MECH 210	(Electro) Pneumatics and Hydraulics Controls Circuits	3
MECH 220	Digital Fundamentals and PLC	3
ENGL 101	English Composition I	3
MECH 240	Mechatronics Troubleshooting	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
PTEC 103	Process Technology I: Equipment	4
GNET 108	Computer Applications for Technicians (GEC-4)	3
PWPT 202	Instrumentation and Control	3
AMTE 245	Advanced PLC (GEC-4)	3
AMTE 133	Industrial Wiring and NEC	2
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
AMTE 134	Industrial Power and Devices	3
AMTM 113	Industrial Mechanics	3
INST 112	Instrumentation Devices and Calibration	3
INST 211	Advanced Instrumentation	3
	GEC-3 Elective	3
	<b>Semester Total</b>	<b>15</b>

## Certificate in Applied Science MECHATRONICS

The Mechatronics Certificate will prepare Gestamp's Maintenance Jr Tech team to enter into the Gestamp Mechatronics Apprenticeship Program. For more information on how to apply to this program, visit <http://www.bridgevalley.edu/gestamp>

### MECHATRONICS CERTIFICATE IN SCIENCE

<b>First Semester</b>		
MATH 115	Applied Technical Math	3
GNST 102	First Year Experience	1
MECH 105	Technical Calculations	2
GNET 122	Industrial Safety Fundamentals	3
MECH 120	Electrical Components	3
MECH 130	Mechanical Components and Electrical Drives	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
PWPT 107	Electrical Controls	3
MECH 210	(Electro) Pneumatics and Hydraulics Controls Circuits	3
MECH 220	Digital Fundamentals and PLC	3
ENGL 101	English Composition I	3
MECH 240	Mechatronics Troubleshooting	3
	<b>Semester Total</b>	<b>15</b>

# Associate in Science

## Certificate in Science

### EMERGENCY MEDICAL SERVICES TECHNOLOGY

#### PROGRAM DESCRIPTION

A graduate of this program will be able to function in the world of pre-hospital medicine as an entry level paramedic. The subjects in this course range from report writing to advanced emergency vehicle operations and all points in between. Students are taught all aspects of pre-hospital care including: advanced airway adjuncts and management, emergency cardiology, traumatic life support, newborn and pediatric advanced life support, and many other skills.

#### PROGRAM GOALS AND OBJECTIVES

1. Recognize, assess, reassess, modify, and safely manage the scene of a medical emergency incident as a certified paramedic team leader.
2. Provide clinically competent pre-hospital care to the ill or injured to patients across the lifespan by utilizing critical thinking and problem-solving abilities according to established regional or state guidelines.
3. Master skills and concepts essential to the operation of EMS systems and other agencies.
4. Document and communicate effectively the appropriate relevant information to the receiving facility.
5. Demonstrate empathy for values and perspectives of diverse cultures and the desire to serve as a patient advocate.
6. Demonstrate personal behavior consistent with professional and employer expectations for the EMS Technician.

#### PROGRAM ASSESSMENT

Program evaluation demonstrates that students and graduates have achieved the student learning outcomes, program outcomes, and role-specific competencies. To ensure accreditation standards are met, the program has a Plan of Program Evaluation in place that is shared with communities of interest. Specifically, the PPE evaluates performance on the exam, program completion, graduate program satisfaction, employer program satisfaction, and job placement rates.

#### OTHER INFORMATION:

A separate application is required for admission to the EMST program. Information regarding the application process can be found on [www.bridgevalley.edu/programs-study](http://www.bridgevalley.edu/programs-study). Students must meet eligibility requirements including drug screening, background check, and technical standards.

The science course (BIOL 210) must be taken within five years of admission. Once admitted into the EMST program, students have one academic year for completion. A valid WV E.M.T. must be possessed prior to entry into the program.



**CAREERS:**

Paramedics are best defined as medical professionals who provide medical care at an advanced life support level in the pre-hospital environment, usually in an emergency, at the point of illness or injury. This includes an initial assessment, a diagnosis and a treatment plan to manage the patient's particular health crisis. Treatment can also be continued en route to a hospital if more definitive care for the patient is required. Paramedics provide advanced levels of care for medical emergencies and trauma. The majority of paramedics are based in the field in ambulances, emergency response vehicles, or in specialist mobile units such as cycle response. Paramedics provide out-of-hospital treatment and some diagnostic services, although some may undertake hospital-based roles, such as in the treatment of injuries.

**EMERGENCY MEDICAL SERVICES TECHNOLOGY****ASSOCIATE IN SCIENCE**

<b>First Semester</b>		
EMST 111	Intro to Paramedic 1	3
EMST 112	Intro to Paramedic 2	3
EMST 113	Advanced Airway Management	6
BIOL 210	Human Anatomy & Physiology	4
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
EMST 221	Medical Emergencies I	4
EMST 222	Medical Emergencies II	4
EMST 223	Special Consideration Patients	8
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
EMST 231	Paramedic Operations	4
EMST 232	Clinical Practicum 1	4
EMST 233	Clinical Practicum 2	4
	<b>Semester Total</b>	<b>12</b>
<b>Fourth Semester</b>		
ENGL 101	English Composition 1	3
PSYC 101	General Psychology	3
MATH 111	Math for Healthcare	3
COMM 100	Oral Communication	3
GNST 104	Professional Development	1
GERO 206	Death and Dying	3
	<b>Semester Total</b>	<b>16</b>

**EMERGENCY MEDICAL SERVICES TECHNOLOGY  
CERTIFICATE**

<b>First Semester</b>		
EMST 101	Emergency Medical Technician	10
BIOL 210	Human Anatomy & Development	4
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
ENGL 101	English Composition I	3
PSYC 101	General Psychology	3
MATH 111	Math for Health Care	3
COMM 100	Oral Communication	3
GNST 104	Professional Development	1
GERO 206	Death and Dying	3
	<b>Semester Total</b>	<b>16</b>

## Associate in Applied Science

### FINANCE – BANKING CONCENTRATION

#### PROGRAM DESCRIPTION

The Finance program prepares students for entry-level positions in the field of corporate money management as well as enhancing the skills of individuals currently employed in corporate finance, banking, lending, and investment. The program provides specialized knowledge in the various financial markets, financial decision making, and financial operations as they are practiced in American business.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program graduates will:

- Demonstrate an understanding and proficiency with accounting terminology, Generally Accepted Accounting Principles, financial statement preparation and the accounting cycle.
- Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles.
- Apply the concepts of time value of money.
- Apply principles of budgeting.
- Demonstrate the ability to perform financial analysis.
- Understand the importance of personal and corporate financial management.
- Demonstrate an understanding of interest, consumer loans, banking and the Federal Reserve System.

#### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. The Finance 2+2 option is assessed according to the above in addition to the successful transition and/or completion of a Baccalaureate degree. General education outcomes are assessed by a general education portfolio.

#### CAREERS

The Finance program prepares graduates for employment as:

##### \*FINANCIAL CLERKS

- |                        |                               |                                   |
|------------------------|-------------------------------|-----------------------------------|
| • Loan Officer         | • Business Banking Officer    | • Customer Service Representative |
| • Relationship Manager | • Personal Banker             | • Teller Coordinator              |
| • Branch Manager       | • New Accounts Representative | • Finance Clerk                   |
| • Portfolio Manager    | • Loan Processor              |                                   |
| • Commercial Banker    |                               |                                   |

*If Students go on to further their education:*

**\*FINANCIAL ANALYSTS, FINANCIAL MANAGERS, AND FINANCIAL ADVISORS**

- Financial Analyst
- Risk Analyst
- Equity Research Analyst
- Financial Advisor
- Portfolio Advisor
- Finance Supervisor
- Branch Manager
- Securities Analyst
- Finance Manager
- Investment Analyst
- FBI Investigator
- Budget Analyst
- Financial Examiners
- Purchasing Officer

\*[www.onetonline.org](http://www.onetonline.org)

**SALARY INFORMATION**

<http://www.bls.gov/ooh/business-and-financial/home.htm>

**FINANCE**  
**BANKING CONCENTRATION**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BIOL 101	General Biology	3
ENGL 101	English Composition I	3
BUSN 106	Introduction to Business	3
FINC 223	Principles of Banking**	3
BUSN 112	Business Mathematics	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
ATEC 115	Fundamentals of Business Computer Apps	3
ECON 202	Principles of Macroeconomics	3
ENGL 102	English Composition II	3
MRKT 175	Professional Selling*	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
ACCT 216	Managerial Accounting	3
BUSN 201	Business Law	3
FINC 241	Consumer Lending**	3
ECON 201	Principles of Microeconomics	3
BUSN 120	IPR: Interviewing Strategies	1
FINC 201	Personal Finance	3
	<b>Semester Total</b>	<b>16</b>
<b>Fourth Semester</b>		
FINC 280	Financial Management	3
BUSN 266	Business Internship	2
Elective	Restricted Elective	2
FINC 296	Analyzing Financial Statements**	3
FINC 295	Money, Banking and Financial Markets**	3
BUSN 298	Business Studies Seminar	1
	<b>Semester Total</b>	<b>14</b>

\*Denotes course only offered on the South Charleston campus.

\*\*Denotes courses taken online through the American Institute of Banking

# Certificate in Applied Science

## BANKING & FINANCE

### PROGRAM DESCRIPTION

The Banking and Finance Certificate is designed for the individual who desires to acquire skills and receive credentials in the banking field.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Demonstrate an understanding and proficiency with accounting terminology, Generally Accepted Accounting Principles, financial statement preparation and the accounting cycle.
- Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles.
- Apply the concepts of time value of money.
- Apply principles of budgeting.
- Demonstrate the ability to perform financial analysis.
- Understand the importance of personal and corporate financial management.
- Demonstrate an understanding of interest, consumer loans, banking and the Federal Reserve System.

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. General education outcomes are assessed by a general education portfolio.

### CAREERS

The Finance program prepares graduates for employment as:

#### \*FINANCIAL CLERKS

Loan Officer	Business Banking Officer	Customer Service
Relationship Manager	Personal Banker	Representative
Branch Manager	New Accounts	Teller Coordinator
Portfolio Manager	Representative	Finance Clerk
Commercial Banker	Loan Processor	

*If Students go on to further their education:*

**\*FINANCIAL ANALYSTS, FINANCIAL MANAGERS, AND FINANCIAL ADVISORS**

Financial Analyst	Finance Supervisor	FBI Investigator
Risk Analyst	Branch Manager	Budget Analyst
Equity Research Analyst	Securities Analyst	Financial Examiners
Financial Advisor	Finance Manager	Purchasing Officer
Portfolio Advisor	Investment Analyst	

\*[www.onetonline.org](http://www.onetonline.org)

**GAINFUL EMPLOYMENT INFORMATION**

[www.onetonline.org](http://www.onetonline.org) states Financial Clerks making a median salary of \$36,850 (2012). The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for Financial Analysts is \$76,950 and a 16% job outlook growth rate (average rate), 2012-20 Experience, education and certification all increase earning potential. If students go on to further their education, Financial Managers have a reported median salary of \$109,740 as of May 2012 and a 9% growth rate, 2012-2020. Additional salary information can be found at <http://www.bls.gov/ooh/business-and-financial/home.htm>

- Tuition and Fees\*: \$4520 In-State Resident
- \$11420 Non-Resident
- Books\*: \$1300
- CB Certification Exam: \$395
- Graduation Rate: N/A
- Job Placement Rate: 72% (college average)
- Median Loan Debt: N/A

\*Actual costs may vary.

**BANKING & FINANCE**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>Curriculum</b>		
ENGL 101	English Composition I	3
BUSN 112	Business Math	3
ATEC 115	Fundamentals of Business Computer Apps	3
ACCT 215	Financial Accounting	3
ACCT 216	Managerial Accounting	3
ECON 202	Principles of Macroeconomics	3
FINC 121	Consumer Lending**	3
FINC 180	Principles of Banking**	3
FINC 280	Financial Management	3
FINC 295	Money, Banking & Financial Markets*	3
	<b>Total</b>	<b>30</b>

*\*\*Denotes courses taken online through the American Institute of Banking*



# Associate in Applied Science

## FINANCE

### With 2+2 Transfer track

#### PROGRAM DESCRIPTION

The Finance program prepares students for entry-level positions in the field of corporate money management as well as enhancing the skills of individuals currently employed in corporate finance, banking, lending, and investment. The program provides specialized knowledge in the various financial markets, financial decision making, and financial operations as they are practiced in American business.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program the graduate will:

- Demonstrate an understanding and proficiency with accounting/law terminology, Generally Accepted Accounting Principles, financial statement preparation, maintaining financial data and the accounting cycle.
- Prepare and analyze financial statements in accordance with Generally Accepted Accounting Principles.
- Apply the concepts of time value of money.
- Apply principles of budgeting.
- Demonstrate the ability to perform financial analysis.
- Understand and demonstrate an understanding of the importance of personal and corporate financial management.
- Possess the necessary knowledge and skills to move into a baccalaureate degree program

#### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. General education outcomes are assessed by a general education portfolio.

#### TRANSFER BACCALAUREATE OPTIONS

- Marshall University
- West Virginia State University
- University of Charleston

**CAREERS**

The Finance program prepares graduates for employment as:

**\*FINANCIAL CLERKS**

- Loan Officer
- Relationship Manager
- Branch Manager
- Portfolio Manager
- Commercial Banker
- Business Banking Officer
- Personal Banker
- New Accounts Representative
- Loan Processor
- Customer Service Representative
- Teller Coordinator
- Finance Clerk

*If Students go on to further their education:*

**\*FINANCIAL ANALYSTS, FINANCIAL MANAGERS, AND FINANCIAL ADVISORS**

- Financial Analyst
- Risk Analyst
- Equity Research Analyst
- Financial Advisor
- Portfolio Advisor
- Finance Supervisor
- Branch Manager
- Securities Analyst
- Finance Manager
- Investment Analyst
- FBI Investigator
- Budget Analyst
- Financial Examiners
- Purchasing Officer

\*www.onetonline.org

**SALARY INFORMATION**

<http://www.bls.gov/ooh/business-and-financial/home.htm>

## FINANCE

## ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
ACCT 185	Survey of Accounting	3
BUSN 106	Introduction to Business	3
ENGL 101	English Composition I	3
FINC 201	Personal Finance	3
MATH 130	College Algebra	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
A TEC 115	Fundamentals of Business Computer Apps	3
ECON 202	Principles of Macroeconomics	3
ENGL 102	English Composition II	3
HUMN 101	Introduction to Humanities	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
ACCT 216	Managerial Accounting	3
ECON 201	Principles of Microeconomics	3
FINC 280	Financial Management	3
MGMT 202	Principles of Management	3
MRKT 205	Fundamentals of Marketing	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
BIOL 101	General Biology	3
BIOL 102	General Biology Lab	1
BUSN 201	Business Law	3
BUSN 296	Business Statistics	3
BUSN 298	Business Studies Seminar	1
	Restricted Elective	1
FINC 296	Analyzing Financial Statements*	3
	<b>Semester Total</b>	<b>15</b>

\*Denotes courses taken online through the American Institute of Banking.

# Associate in Arts

## GENERAL EDUCATION

### PROGRAM DESCRIPTION

The Associate of Arts degree is a program that serves a dual purpose:

- It provides the first two years of general study to students who plan to transfer to a baccalaureate program and work toward a Bachelor of Arts or a Bachelor of Science.
- It provides two years of general studies to individuals who desire a structured, non-technical degree program to gain employment or to secure a promotion in employment.

### GENERAL EDUCATION

#### ASSOCIATE IN ARTS

First Semester		
ENGL 101	English Composition I	3
MATH 130 OR MATH 113	College Algebra OR Mathematical Reasoning	3
GNST 110	Personal Leadership (OR GNST 102, 103, 104)	3
COMM 100	Oral Communication	3
ATEC 115	Fundamentals of Business Computer Applications	3
	<b>Semester Total</b>	<b>15</b>
Second Semester		
ENGL 102	English Composition II	3
HUMN 101	Introduction to Humanities	3
PSYC 101	General Psychology	3
HIST	History Elective 101, 102 OR 205	3
NAT SCI	Natural Science Elective (BIOL or CHEM)	4
	<b>Semester Total</b>	<b>16</b>
Third Semester		
SOCI 101	Introduction to Sociology	3
POSCI 101	American Federal Government OR History Elective	3
	Fine Arts Elective (ARTS 110, 120 OR HUMN 103)	3
	Foreign Language Elective (SPAN 101 OR ASLI 111, 112)	3
	Literature Elective (ENGL 203, 204, 215, 218)	3
	<b>Semester Total</b>	<b>15</b>
Fourth Semester		
	Health Elective ( PHED 101)	2
	Natural Science Elective (BIOL or CHEM)	3
	Social Science Elective	3
	Free Electives	6
	<b>Semester Total</b>	<b>14</b>

*\*Most BA/BS degrees require College Algebra*

# Associate in Science Certificate in Applied Science GENERAL EDUCATION

## PROGRAM DESCRIPTION

The Associate in Science degree is a program that serves a dual purpose:

- It provides the first two years of general study to students who plan to transfer to a baccalaureate program and work toward a Bachelor of Arts or a Bachelor of Science.
- It provides two years of general studies to individuals who desire a structured, non-technical degree program to gain employment or to secure a promotion in employment.

## GENERAL EDUCATION

### ASSOCIATE IN SCIENCE

First Semester		
ENGL 101	English Composition I	3
MATH 125 or 130	College Algebra	3
GNST 110	Freshman Experience (OR 102, 103, 104)	3
ATEC 115	Fundamentals of Business Computer Applications	3
PHED	Health and Wellness	2
<b>Semester Total</b>		<b>14</b>
Second Semester		
ENGL 102	English Composition II	3
MATH 140 or 155	Trigonometry or Technical Calculus	3
PSYC 101	General Psychology	3
ARTS	Any ARTS or HUMN 103	3
NAT SCI	Any Lab Science/BIOL/CHEM/PHSC	4
<b>Semester Total</b>		<b>16</b>
Third Semester		
ENGL OR COMM	Any English/Communications	3
NAT SCI	Any Lab Science/BIOL/CHEM/PHSC	4
SOC SCI	Any HIST, SOCI, ECON, or PYSC	3
	Free Elective	6
<b>Semester Total</b>		<b>16</b>
Fourth Semester		
SOC SCI	Any HIST, SOCI, ECON, or PYSC	6
NAT SCI	Any Nat Sci	4
PHED	First Aid	1
	Free Elective	3
<b>Semester Total</b>		<b>14</b>

**GENERAL EDUCATION**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MATH	113, 125 OR 130	3
GNST	110 OR 102, 103, 104	3
HUMN	101, 103 OR ARTS 110, 120	3
ATEC 115	Fundamentals of Business Computer Applications	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
ENGL 102	English Composition II	3
COMM 100	Oral Communications	3
SOC SCI	SOCI, PSYC, ECON or HIST	6
NAT SCI	BIOL, CHEM, PHYS, PHSC, MTGY	3-4
PHED 101	Health and Wellness	2
<b>Semester Total</b>		<b>14-15</b>

*\*4CR LAB SCIENCE Strongly recommended*

# Associate in Applied Science Certificate in Applied Science GERONTOLOGY

## PROGRAM DESCRIPTION

Gerontology, the study of aging, is a relatively new discipline that has emerged during the last 20-30 years. It is a multi-disciplinary field that integrates adult education, sociology, health, biology, psychology and social work. The program includes both theoretical and practical components. It is designed for students wishing to pursue a career serving the aging population as well as those already in the field wishing to increase their knowledge and skills.

Employment opportunities for individuals in the field of gerontology include the following job titles: adult protective services representative, community organizer, lobbyist, agency administrator, assisted living director, consultant on consumer needs for older adults, adult day-care provider, environmental designer, health/wellness educator, elder hostel coordinator, bereavement counselor, elder abuse investigator, senior citizens center director, home health care manager, hospice provider, home-bound outreach coordinator, policy planner, volunteer coordinator, senior transportation coordinator, and many more.

## PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will have:

- A well-defined inclusive understanding of the field of gerontology, including demographics, tasks facing gerontologists and entrepreneurship.
- Knowledge of the health and biological aspects of aging, theories of aging, wellness strategies and chronic illnesses common to the elderly.
- Knowledge regarding mental health as related to aging, later life transitions and mental illness and treatment.
- Knowledge regarding death and dying, bereavement and advance directives.
- Knowledge regarding long-term care settings, licensure and accreditation.
- Knowledge of basic organizational and managerial theories and principles applicable to social service agencies.
- Basic knowledge of grant writing.
- Knowledge and skills for appropriate interpersonal skills and intervention techniques to work with people.
- Completed a 240-hour practicum in an approved agency that provides services to the elderly.

**GERONTOLOGY****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
GNST 102	First Year Experience	1
BUSN 112	Business Math OR any Math 100 level or higher	3
ENGL 101	English Composition I	3
ALHL 102	Intro to Health Care	3
GERO 103	Intro to Gerontology	3
GERO 206	Death and Dying	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
PSYC 201, 101	Life Span Psychology <b>OR</b> General Psychology	3
BUSN 106	Intro to Business	3
ATEC 115	Fund of Business Computer Tech	3
GERO 102	Health Aspects of Aging	3
GERO 208	Long Term Care	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
BIOL 245	Nutrition and Diet Therapy	3
MGMT 151, HMGT 105	Supervisory Management <b>OR</b> Foundations to Health Care Management	3
HMGT 101	Intro to Humanities	3
GERO 205	Human Relationship Skills	3
GERO 209	Psychosocial Aspects of Aging	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
BIOL 210	Human Anatomy & Physiology <b>OR</b> Any Anatomy or Physiology + Lab	4
GERO 298/BUSN 298	Business Seminar (capstone)	1
MGMT 155	Entrepreneurship <b>OR</b> HMGT 205* Ethical/ Legal Asp of HC Management (*pre-requisite is HMGT 105)	3
GERO 204	Administration and Program Planning in Gerontology	3
GERO 202	Practicum in Gerontology	3
	<b>Semester Total</b>	<b>14</b>



**GERONTOLOGY**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
GERO 102	Health Aspects of Aging	3
GERO 103	Intro to Gerontology	3
GERO 206	Death and Dying	3
GERO 209	Psychosocial Aspects of Aging	3
<b>Semester Total</b>		<b>16</b>
<b>Second Semester</b>		
MATH 112	Business Math	
GERO 202	Practicum in Gerontology	3
GERO 204	Administration and Program Planning in Gerontology	3
GERO 205	Human Relationship Skills	3
GERO 208	Long Term Care	3
<b>Semester Total</b>		<b>15</b>

# Associate in Science

## GRAPHIC DESIGN AND PRINT COMMUNICATIONS

### PROGRAM DESCRIPTION

The associate of science degree in Digital Design and Print Communications is designed to provide quality technical education to prepare technicians for the rapidly changing graphic arts and digital design industries. The student will receive training in all of the basic skills required of these industries, and upon completion of the two-year program, should be qualified to enter the industry in a junior supervisory capacity directly responsible to the plant manager or supervisor. For the student wishing to pursue the plus-two baccalaureate Printing Management degree or the plus-two baccalaureate Graphic Design degree programs offered by WVU Tech, the associate program offers a well-rounded basis for advanced study.

### PROGRAM OBJECTIVES

In addition to the learning outcomes set forth in the general education core curriculum for the associate degree, specific outcomes for this program have been established. Upon completion of the Associate of Science degree in Graphic Design and Print Communications, the student will be able to:

- Design and prepare electronic text, images, and/or documents for publication
- Utilize desktop publishing software common to the graphic arts industry
- Apply appropriate color theory to design and copy
- Produce or publish materials for print and digital distribution
- Have experience in the operation of printing presses
- Appropriately bind and finish a printed document
- Apply appropriate management skills for technical workers

Program outcomes are assessed by exit course examinations, performance on laboratory projects, and a capstone course. General education objectives are assessed with the WorkKeys examination.

### TYPICAL JOB TITLES

Graphic Design and Print Communication graduates have opportunities for employment in publishing, design services, advertising, public relations and related industries. Typical job titles include: Graphic Designer, Graphic Arts Computer/Software Specialist, Digital Pre-Press Operator, Desktop Publisher, Sheetfed Press Operator, Webfed Press Operator, Screen Press Operator, Flexographic Press Operator, Bindery and finishing operator, First line supervisor, and Customer service representative.

Median annual salaries for typical occupations in the field range from \$34,000 to \$44,000 per year according to the data from the U.S. Department of Labor Bureau of Labor Statistics (BLS) May 2012

### TRANSFER BACCALAUREATE OPTIONS

\*Management, BS \*Printing Management, BS \*Graphic Design, BA \*Journalism, BS

## GRAPHIC DESIGN AND PRINT COMMUNICATIONS

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
DSGN 111	Introduction to Graphic Communications	3
DSGN 112	Ink and Substrates	3
DSGN 113	Introduction to Graphic Design	1
DSGN 114	Text and Type	1
DSGN 118	Adobe Photoshop	3
ENGL 101	English Composition I (GEC-1)	3
GNST 102	Freshman Seminar	1
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
MATH 110	Applied Technical Math (GEC-2)	3
DSGN 135	Flexography 1	3
DSGN 134	Adobe Illustrator	3
DSGN 120	Adobe InDesign	3
DSGN 125	Digital Photography	1
DSGN 128	Adobe Dreamweaver	1
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
DSGN 218	Adobe Creative Suite Projects	3
DSGN 235	Flexography II	3
ENGL102	English Composition II (GEC-1)	3
	Lab Science Elective (GEC-2)	4
	GEC-3 Elective	3
	<b>Semester Total</b>	<b>16</b>
<b>Fourth Semester</b>		
DSGN 232	Packaging Design	3
MGMT 202	Principles of Management	3
	Restricted Electives*	6
	GEC-4 Elective	3
	<b>Semester Total</b>	<b>15</b>

\*Restricted electives can be DSGN 299, any GAME or any CSCT or program coordinator approved course(s)

# Certificate in Applied Science

## GRAPHIC DESIGN AND PRINT COMMUNICATIONS- DIGITAL IMAGING TECHNOLOGY

### PROGRAM DESCRIPTION

The Digital Imaging Technology Certificate in Digital Design & Print Communications is designed to provide quality technical education to prepare digital graphic technicians for the rapidly changing graphic arts industry. The student will receive training in all of the basic skills required in the industry and be able to continue into the two-year Digital Design & Print Communications program.

### PROGRAM OBJECTIVES

Upon completion of the one-year certificate program, the student will be able to:

- Create, design, and prepare copy for publication
- Utilize graphic design and desktop publishing software
- Apply appropriate color theory to design and copy

Program outcomes are assessed by exit course examinations and performance on laboratory

### TYPICAL JOB TITLES

Typical job titles include Digital Imaging Technician; Desktop Publisher

### ONE-PLUS-ONE ASSOCIATE OPTION

Digital Design and Print Communications, AS

### PLUS-TWO BACCALAUREATE OPTIONS (upon completion of AS degree)

Printing Management (WVU Tech)

Interdisciplinary Studies in Graphic Design (WVU Tech)

## DIGITAL IMAGING TECHNOLOGY

## CERTIFICATE

<b>First Semester</b>		
DSGN 111	Intro to Graphic Communications	3
DSGN 113	Intro to Graphic Design	1
DSGN 115	Text and Type	1
DSGN 125	Digital Photography	1
DSGN 126	Electronic Image Capture	1
DSGN 128	Adobe Dreamweaver	1
DSGN 136	Acrobat/PDF Basics	1
ENGL 101	English Composition I	3
Math Elective	(100 or above) <small>(GEC 2)</small>	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
DSGN 116	InDesign I	1
DSGN 132	Social Media Basics	1
DSGN 134	Adobe Illustrator	1
DSGN 135	InDesign II	1
DSGN 141	Color Models and Usage	1
DSGN 142	Intro to PhotoShop	1
DSGN 143	Color Workflow & Management	1
DSGN 218	Adobe Creative Suite Projects	3
DSGN 242	Intro to Printing Management	2
DSGN 251	Printing Specialization (Color)	3
<b>Semester Total</b>		<b>15</b>

# Certificate in Applied Science

## GRAPHIC DESIGN AND PRINT COMMUNICATIONS- PRESS TECHNOLOGY

### PROGRAM DESCRIPTION

The Press Certificate in Digital Design and Print Communications is designed to provide quality technical education to prepare press technicians for the rapidly changing graphic communications industry. The student will receive training in all of the basic skills required of the industry and, upon completion of the one-year certificate, should be able to continue into the two-year Digital Design and Print Communications program.

### PROGRAM OBJECTIVES

Upon completion of the one-year certificate program, the student will be able to—

- operate press equipment for print production of both sheet fed and web offset
- apply safety/environmental standards and guidelines for press operation
- utilize appropriate paper and ink for the best print product

Program outcomes are assessed by exit course examinations and performance on laboratory projects.

### JOB TITLES

Typical job titles include sheet fed press operator and web fed press operator.

### ONE-PLUS-ONE ASSOCIATE OPTION

Printing Technology, AS

### TRANSFER BACCALAUREATE OPTION

Printing Management (upon completion of AS degree)

**PRESS TECHNOLOGY  
CERTIFICATE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
DSGN 111	Introduction to Graphic Communications	3
DSGN 112	Paper & Ink	3
DSGN 215	Webfed Press	3
DSGN 299	Internships	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
DSGN 130	Sheetfed Press	3
DSGN 145	Safety & Environmental Issues	2
DSGN 231	Flexography	3
DSGN 299	Special Projects (Press)	1
DSGN 255	WebPress Specialization	3
Math Elective	(100 or above) <small>(GEC 2)</small>	3
	<b>Semester Total</b>	<b>15</b>

# Associate in Applied Science

## HEALTH SCIENCES

### PROGRAM DESCRIPTION

The Health Science curriculum is designed to initially prepare students for application and admission into the Health Division's selective admission program areas. All prerequisite courses for the selective admission programs are outlined in the first year. Upon completion of the prerequisite courses, if a student does not enter into one of the selective admission program areas, that student may opt to continue in the Health Sciences AAS program choosing one of four areas of emphasis: Gerontology, Human Services and Rehabilitation Studies, Medical Coding, or HealthCare Management. This provides the student an opportunity to complete the Health Sciences AAS degree and receive a certificate in the area of emphasis chosen.

### PROGRAM GOALS AND OBJECTIVES

- Complete all prerequisite course requirements, in the first two semesters, for application/admission into one of the selective admission program areas in the medical field: Dental Hygiene, Diagnostic Medical Sonography, Medical Lab Tech, Nuclear Medicine Tech, Nursing, Respiratory Therapy or Veterinary Tech
- Complete AAS in Health Sciences with a track of emphasis leading to a certificate: Gerontology; Human Services and Rehabilitation Studies; Medical Coding; HealthCare Management.
- Demonstrate an understanding of health care and medical terminology, as well as the biological and physiological basis of health care.
- Gerontology Track: Demonstrate an understanding of the biological, cognitive, social and emotional aspects of the aging process; apply all ethical practices in direct care delivery to aging individuals in a variety of health care settings.
- Human Services and Rehabilitation Studies Track: Demonstrate an understanding of psychiatric development and substance abuse disorders; demonstrate person-centered principles, values and attitudes needed to facilitate the recovery/rehabilitation of people with disabilities. (This track leads to an AAS in HSRS which prepares students to sit for CPRP examination.)
- Medical Coding Track: Develop expertise in ICD-10-CM, ICD-10-CS, and CPT/HCPCS medical coding and medical office billing procedures. (AHIMA approved; may sit for AHIMA Certified Coding Specialist Certification.)
- HealthCare Management Track: Demonstrate knowledge of principles, terminology, structure and products of health care management; apply business practices to the health care setting.



**PROGRAM ASSESSMENT**

Program outcomes are assessed by capstone courses, exit interviews, employer surveys and program specific exit exams. General education outcomes are assessed by a general education portfolio.

**CAREERS AND SALARY INFORMATION****HUMAN SERVICES AND REHABILITATION STUDIES:**

<http://www.onetonline.org/link/summary/21-1094.00>

**HEALTHCARE MANAGEMENT:**

<http://www.bls.gov/ooh/management/medical-and-health-services-managers.htm>

**GERONTOLOGY:**

<http://www.onetonline.org/link/summary/39-9021.00>

**MEDICAL CODING:**

<http://www.onetonline.org/link/summary/29-2071.00>

**HEALTH SCIENCES- PRE-DENTAL HYGIENE**

<b>First Semester</b>		
ENGL 101	English Composition	3
BIOL 210	Human/Anatomy Physiology	4
CHEM 110	Fundamentals of Chemistry	3
CHEM 111	Fundamentals of Chemistry Lab	1
PSYC 101	General Psychology	3
MATH 100	Any Math 100 or higher	3
<b>Semester Total</b>		<b>17</b>
<b>Second Semester</b>		
ENGL 202	Business and Professional Writing	3
BIOL 230	Principles of Microbiology	3
BIOL 231	Principles of Microbiology Lab	1
SOCA 101	Introduction to Sociology	3
	Select from chosen emphasis	3
<b>Semester Total</b>		<b>13</b>

**HEALTH SCIENCES- PRE-DIAGONOSTIC MEDICAL SONOGRAPHY**

<b>First Semester</b>		
ENGL 101	English Composition	3
BIOL 220	Human Anatomy and Lab	4
PHYS 101	General Physics I OR Intro to Physics	3
MATH 130	College Algebra OR MATH 125-4 Hours	3
DMSU 100	Introduction to Sonography	2
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
PSYC 101	General Psychology OR PSYC 201 Life Span Development	3
BIOL 221	Human Physiology and Lab	4
	Select from Emphasis	8-9
<b>Semester Total</b>		<b>15-16</b>

*During completion of the first two semesters of coursework, the student will either 1) apply to and be accepted into the program of choice; 2) continue in current degree, until accepted into the program of choice (taking additional courses in the program emphasis of choice, attaining skill sets and/or certificate); or 3) graduate with this full degree: AAS in Health Science in Concentration and Emphasis.*

## HEALTH SCIENCES- PRE-MEDICAL LABORATORY TECHNOLOGY

First Semester		
ENGL 101	English Composition	3
BIOL 220	Human Anatomy and Lab	4
CHEM 101	General Chemistry	3
CHEM 102	Chemistry Lab	1
MATH 130	College Algebra OR MATH 125-4 Hours	3
<b>Semester Total</b>		<b>14</b>
Second Semester		
ATEC115	Fundamentals of Business Computers	3
BIOL 221	Human Physiology and Lab	4
BIOL 230	Microbiology	3
BIOL 231	Microbiology Lab	1
	Social Science Elective	3
<b>Semester Total</b>		<b>14</b>

## HEALTH SCIENCES- PRE-NUCLEAR MEDICINE

First Semester		
ENGL 101	English Composition	3
BIOL 220	Human Anatomy and Lab	4
CHEM 101	General Chemistry	3
CHEM 102	Chemistry Lab	1
PSYC 201	Life Span Development	3
ALHL 102	Introduction to Health Care	3
<b>Semester Total</b>		<b>14</b>
Second Semester		
ENGL 102	English Composition II	3
BIOL 221	Human Physiology and Lab	4
MATH 130	College Algebra OR MATH 125- 4 Hours	3
HUMN 101	Introduction to Humanities	3
PHYS 100	Introduction to Physics	3
<b>Semester Total</b>		<b>16</b>

*During completion of the first two semesters of coursework, the student will either 1) apply to and be accepted into the program of choice; 2) continue in current degree, until accepted into the program of choice (taking additional courses in the program emphasis of choice, attaining skill sets and/or certificate); or 3) graduate with this full degree: AAS in Health Science in Concentration and Emphasis.*

**HEALTH SCIENCES- PRE-NURSING**

<b>First Semester</b>		
ENGL 101	English Composition	3
PSYC 101	General Psychology	3
BIOL 220	Human Anatomy and Lab	4
MATH 111	Math for Healthcare OR any MATH 100 or above (optional, but recommended)	3
BIOL 245	Nutrition (highly recommended)	3
<b>Semester Total</b>		<b>14</b>
<b>Second Semester</b>		
ENGL 102	English Composition II (optional, but recommended)	3
BIOL 221	Human Physiology and Lab	4
PSYC 201	Life Span Development (optional, but recommended)	3
BIOL 230	Microbiology (highly recommended)	3
	Courses from Emphasis	1-3
<b>Semester Total</b>		<b>14-16</b>

**HEALTH SCIENCES- PRE-RESPIRATORY THERAPY**

<b>First Semester</b>		
ENGL 101	English Composition	3
BIOL 210	Human Anatomy/Physiology	4
CHEM	Chemistry 100, 101 or 110 (no lab required)	3
A TEC 115	Computer Applications	3
MATH 111	Math for Health Care	3
<b>Semester Total</b>		<b>16</b>
<b>Second Semester</b>		
ENGL 202	Business and Professional Writing	3
BIOL 230	Principles of Microbiology	3
BIOL 231	Principles of Microbiology Lab	1
BUSN 120	IPR: Interviewing Strategies	1
SOCI 130	Diversity in the Workplace	1
PSYC 201	Life Span Development	3
	Select from chosen emphasis	3-6
<b>Semester Total</b>		<b>15-18</b>

*During completion of the first two semesters of coursework, the student will either 1) apply to and be accepted into the program of choice; 2) continue in current degree, until accepted into the program of choice (taking additional courses in the program emphasis of choice, attaining skill sets and/or certificate); or 3) graduate with this full degree: AAS in Health Science in Concentration and Emphasis.*

**HEALTH SCIENCES- PRE-VETERINARY TECHNOLOGY**

<b>First Semester</b>		
ENGL 101	English Composition	3
CHEM	Chemistry 100, 101 or 110 (no lab required)	3
SOCI 101	Introduction to Sociology	3
ATEC 115	Computer Applications	3
MATH 111	Math for Health Care	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ENGL 202	Business and Professional Writing	3
BIOL 230	Principles of Microbiology	3
BIOL 231	Principles of Microbiology Lab	1
	Select from chosen emphasis	3-9
	<b>Semester Total</b>	<b>10-16</b>

*During completion of the first two semesters of coursework, the student will either 1) apply to and be accepted into the program of choice; 2) continue in current degree, until accepted into the program of choice (taking additional courses in the program emphasis of choice, attaining skill sets and/or certificate); or 3) graduate with this full degree: AAS in Health Science in Concentration and Emphasis.*

<b>Human Services and Rehabilitation Studies</b>		
HSRS 120	Introduction to CBHT	3
HSRS 106	Peer Support I	4
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 127	Youth Development Wellness	3
HSRS 130	Introduction to Autism	3
HSRS 232	Substance Abuse Disorders	3
HSRS 295	Human Services Seminar	1
HSRS 296	Co-Occuring Disorders	3
Elective	HSRS Elective	1
<b>Semester Total</b>		<b>30</b>
<b>Gerontology</b>		
GERO 103	Intro to Gerontology	3
GERO 206	Death and Dying	3
GERO 102	Health Aspects of Aging	3
GERO 208	Long Term Care	3
GERO 205	Human Relationship Skills	3
GERO 209	Psychosocial Aspects of Aging	3
GERO 204	Administration and Program Planning in Gerontology	3
GERO 202	Practicum in Gerontology	3
HMG 105	Foundations to Health Care Mgmt	3
HMG 205	Ethical/Legal Aspects of HC Mgmt	3
BUSN 298	Business Seminar	1
<b>Semester Total</b>		<b>31</b>
<b>HealthCare Management</b>		
HMG 105	Foundations of Healthcare Management	3
MGMT 151	Supervisory Management	3
BUSN 201	Business Law	3
MRKT 205	Fundamentals of Marketing	3
HMG 120	Computer Apps in Healthcare Organizations	3
HMG 205	Ethical/Legal Aspects of HC Mgmt	3
MGMT 202	Principles of Management	3
HMG 215	Management of HC Delivery Systems	3
HMG 210	Quality & Patient Safety in HC	3
ACCT 215	Financial Accounting	3
BUSN 298	Business Studies Seminar	1
<b>Semester Total</b>		<b>29</b>
<b>Medical Coding</b>		
MEDC 201	ICD 10 – CM Diagnostic	3
MEDC 150	Medical Insurance & Billing	3
MEDC 203	CD 10 – CM	3
MEDC 205	CPT/HCPCS Medical Coding	3
ALHL 120	Basic Pharmacology	3
MEDC 250	Directed Practicum	1
MEDC 260	Preparation for CCS Exam	1
MEDC 110	Medical Law and Ethics	1
MEDC 215	Human Pathophysiology	2
MEDC 240	Advanced Coding Concepts	3
HMG 105	Foundations in Healthcare Mgmt.	3
A TEC 220	Records & Database Mgmt	3
<b>Semester Total</b>		<b>29</b>

# Associate in Applied Science

## HEALTHCARE MANAGEMENT

### PROGRAM DESCRIPTION

The Healthcare Management curriculum prepares students for management roles in a health care environment that is rapidly changing from one focused on episodes of treatment for acute disease to lifelong health maintenance and wellness promotion. The program is intended for health care workers who need new knowledge and skills to compete in the changing health care marketplace. It will also be useful for those individuals with no previous health care experience who seek non-clinical entry-level positions in health care, or who plan to continue their education in the field of health care administration.

Medical and health services managers also called healthcare executives or healthcare administrators, plan, direct, and coordinate medical and health services. They might manage an entire facility or specialize in managing a specific clinical area or department, or manage a medical practice for a group of physicians. Medical and health services managers must be able to adapt to changes in healthcare laws, regulations, and technology.

### PROGRAM GOALS AND OBJECTIVES

- Demonstrate knowledge of principles, terminology, structure and products of health care management.
- Define emerging health care delivery systems and their impact on delivery, financing, practice patterns and the utilization of personnel and services.
- Function within an ethical and legal framework appropriate for a managed care environment.
- Demonstrate proficiency in computer applications used in a health care environment.
- Apply business practices to the health care setting.
- Demonstrate an understanding of the issues and practices applicable to health information.

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. General education outcomes are assessed by a general education portfolio.

### TRANSFER BACCALAUREATE OPTIONS

Currently under development.

**CAREERS**

The Healthcare Management program prepares graduates for employment as **\*General and Operations Manager or Healthcare Services Managers** with typical job titles such as:

office manager, nursing home administrator, medical/health manager, assisted living administrator, nursing home administrator, administrative services manager, and medical office manager. Students who further their education can become **\*Medical and Health Services Managers/Administrators** with typical job titles such as: health and social service manager, program manager, clinical director, practice administrator, office manager, director of healthcare facility, and health facility manager.

\*[www.onetonline.org](http://www.onetonline.org)

**SALARY INFORMATION**

<http://www.bls.gov/ooh/management/medical-and-health-services-managers.htm>



## HEALTHCARE MANAGEMENT

## ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
ENGL 101	English Composition I	3
ALHL 102	Introduction to Healthcare <b>OR</b>	
BUSN 106	Introduction to Business	3
MGMT 151	Supervisory Management	3
HMGMT 105	Foundations of Health Care Management	3
MATH 130	College Algebra	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
PSYC 101	General Psychology	3
ATEC 115	Fundamentals of Business Computers Apps	3
ENGL 102	English Composition II	3
ECON 202	Principles of Macroeconomics	3
HMGMT 205	Ethical/Legal Aspects of HC Management	3
HMGMT 120	Computer Apps in Healthcare Organizations	1
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
MRKT 205	Fundamentals of Marketing	3
ACCT 215	Financial Accounting	3
HMGMT 210	Quality and Patient Safety in HC	3
BIOL 210	Human Anatomy and Physiology	4
MGMT 202	Principles of Management	3
	<b>Semester Total</b>	<b>16</b>
<b>Fourth Semester</b>		
MGMT 255	Small Business Management	3
ACCT 216	Managerial Accounting	3
BUSN 201	Business Law	3
HMGMT 215	Management of Healthcare Delivery Systems	3
BUSN 298	Business Studies Seminar	1
	<b>Semester Total</b>	<b>13</b>

## Associate in Applied Science

# HIGHWAY ENGINEERING TECHNOLOGY-Bridge Inspection Concentration

### PROGRAM DESCRIPTION

This degree initiated as a collaborative effort between the West Virginia Division of Highways (WVDOH) and BridgeValley Community and Technical College. It serves technicians working in the public sector of the civil / highways fields and also those working in private industry. The aim of the program is to develop skilled technicians and technologists to service the highway and bridge inspection industry. The program provides a career path by offering academic courses for advancement in the Highway Engineering Technology technician certification program in West Virginia. The Bridge Inspection emphasis under the Highway Engineering Technology A.A.S. degree is intended for technicians working in the field of bridge inspection. Technicians in this program may advance through a series of levels based on their years of work experience and technical competency in the various technical aspects of the bridge inspection field.

### PROGRAM OBJECTIVES

In addition to the learning outcomes set forth in the general education core curriculum for the associate of applied science degree, specific outcomes for this program have been established. Upon completion of this program should be able to:

- Demonstrate an appropriate mastery of topics encountered by the bridge safety inspector including inspection techniques, evaluation, scour and erosion, and of topics related to the structural elements encountered in the field during the bridge safety inspection process.
- Perform routine calculations common to bridge safety inspection and construction technician work.
- Demonstrate the ability to communicate effectively by written and oral means.
- Demonstrate an awareness of safety issues related bridge construction and safety inspection and to use this knowledge to maintain a safe working environment.
- Exhibit appropriate workplace behavior and display a commitment to quality, dependability, and ethical conduct.
- Understand and use standard documents encountered in bridge safety inspection.
- Demonstrate knowledge of federal and state manuals and standards applicable to bridge safety inspection.

### TYPES OF JOBS AVAILABLE:

- West Virginia Division of Highways
- Construction Industry

### JOB TITLES:

- Bridge Safety Inspector
- Field Technician

**HIGHWAY ENGINEERING TECHNOLOGY****Bridge Inspection Concentration****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
HWAY 101	Technician Orientation	1
HWAY 115	Bridge Inspection I	3
HWAY 104	Plans and Specifications	3
MATH 115	Applied Technical Math (GEC 2)	3
ENGL 101	English Composition I (GEC 1)	3
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
HWAY 140	Highway Calculations (GEC-2)	3
HWAY 105	Work Zone Traffic Control	3
HWAY 106	Ethics and Professionalism (GEC-3)	3
HWAY 150	Structures I	3
GNET 107	Program Specific Elective (GEC-4)	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
HWAY 151	Structures II	3
HWAY 207	Erosion and Sediment Control	3
HWAY 215	Bridge Inspection II	3
	Technical Elective3	6
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
HWAY 255	Bridge Inspection Capstone Certification/Review	3
	Technical Elective 3	13
	<b>Semester Total</b>	<b>16</b>

- GEC-4: Computer Application course required and other technical courses – science related may qualify, may be approved by advisor. GNET 107, HWAY 120, and CIET 132. May substitute GNET 108, or other computer applications course containing MS Office applications.
- GNST-102 First Year Experience, or an equivalent, may be substituted for this course.
- Technical Elective, must be approved by a advisor. Specializations available, courses recommended include HWAY 102, HWAY 103, HWAY 120, HWAY 202, HWAY 203, HWAY 221, HWAY 240, HWAY 299 and any WVDH coded materials certification. . Additional technical electives from accredited institutions may be substituted pending approval of advisor.
- GEC-2 - May substitute a college level Algebra or Trigonometry course to meet the requirements for a future A.S. or B.S. program. A 100 level math course is a minimum requirement for this GEC-2.
- GEC-3 HU/SS elective must meet the Cultural Diversity requirement as part of Core Curriculum Requirements.

## Associate in Applied Science HIGHWAY ENGINEERING TECHNOLOGY

### PROGRAM DESCRIPTION

This degree initiated as a collaborative effort between the West Virginia Division of Highways (WVDOH) and BridgeValley Community and Technical College. It serves technicians working in the public sector of the civil / highways fields and also those working in private industry. The aim of the program is to develop skilled technicians and technologists to service the highway engineering and construction industries. The program provides a career path by offering academic courses for advancement in the Highway Engineering Technology technician certification program in West Virginia. Technicians in this program may advance through a series of five levels based on their years of work experience and technical competency in the various technical aspects of the construction and highway fields. A Bridge Safety Inspection Concentration of the Highway Engineering Technology degree program is also available. Both programs are available to those currently working or desire to work in the related fields mentioned.

### PROGRAM OBJECTIVES

In addition to the learning outcomes set forth in the general education core curriculum for the associate of applied science degree, specific outcomes for this program have been established. Upon completion of this program, the graduate should be able to:

- Demonstrate an appropriate mastery of topics encountered by the highway technician including surveying, construction inspection and field and lab testing.
- Perform routine calculations common to highway technician work.
- Demonstrate the ability to communicate effectively by written and oral means.
- Demonstrate an awareness of safety issues related to highway construction and to use this knowledge to maintain a safe working environment.
- Exhibit appropriate workplace behavior and display a commitment to quality and dependability.
- Understand and use standard documents encountered in highway construction.

### TYPES OF JOBS AVAILABLE:

- West Virginia Division of Highways
- Construction Industry
- Construction Materials Manufacturing Industry

### JOB TITLES:

- Bridge Construction Inspector
- Highway Construction Inspector
- Materials Inspector
- Field Technician
- Laboratory Technician
- Assistant Project Manager

**HIGHWAY ENGINEERING TECHNOLOGY  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
HWAY 101	Technical Orientation4	1
HWAY 103	Construction Inspection I	3
HWAY 104	Plans and Specifications	3
MATH 115	Applied Technical Math (GEC 2)	3
ENGL 101	English Composition I (GEC 1)	3
CIET 132	Higway Materials (GEC 2)	2
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
HWAY 102	Heavy Construction Methods I	3
HWAY 105	Work Zone Traffic Control	3
HWAY 106	Ethics and Professionalism ( GEC 3)	3
HWAY 120	Geology for Technicians (GEC 2)	2
GNET 107	Program Specific Elective (GEC-4)	3
	HU/SS Elective (GEC-3)	1
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
HWAY 203	Construction Inspection II	3
HWAY 207	Erosion and Sediment Control	3
HWAY 121	Highway Surveying	3
	Technical Elective3	2
	Technical Elective3	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
	Technical Elective 3	3
	Technical Elective 3	3
	Technical Elective 3	3
	Technical Elective 3	3
	Technical Elective 3	3
<b>Semester Total</b>		<b>15</b>

1. GEC-4: Computer Application course required and other technical courses – science related may qualify, may be approved by advisor. GNET 107, HWAY 120, and CIET 132. May substitute GNET 108, or BAHM 260, BAHM 261, BAHM 267 (3 – 1 hr. credits),
2. WVDOH / Industry administered courses held at Cedar Lakes Conference Center, spring only. Compulsory courses, substitutions are not allowed.
3. Technical Elective, must be approved by advisor. Specializations available, courses recommended include HWAY 201, HWAY 202, HWAY 204, HWAY 205, DOH 201, DOH 202, DOH 203, DOH 204. Additional technical electives from accredited institutions may be substituted pending approval of advisor.
4. GNET 101, Technology Orientation, may be substituted for this course
5. GEC-2 - May substitute MATH 113, Elementary Algebra, and MATH 041, Intro to Trigonometry, for this course to meet the requirements for a future A.S. or B.S. program. 100 level math course is a minimum requirement for this GEC-2
6. GEC-4 HU/SS elective must meet the Cultural Diversity requirement as part of Core Curriculum Requirements. Consult your academic advisor.
7. ENGL 102, English Composition II, can substitute for this course.

**HIGHWAY ENGINEERING TECHNOLOGY****ASSOCIATE OF APPLIED SCIENCE DEGREE (A.A.S.)**

WVDOH Certification Track

<b>Component I – General Education Core</b>		
ENGL 101 (GEC 1)	English Composition I (GEC-1)	3
MATH 115	Applied Math for Technicians (GEC-2)	3
CIET 132	Highway Materials (GEC 2)	2
	HU/SS Elective (GEC-3)	1
	Program Specific Elective (GEC-4)	3
<b>Component Total</b>		<b>12</b>
<b>Component II - Technical Core</b>		
HWAY 101	Technician Orientation	1
HWAY 102	Heavy Construction Methods I	3
HWAY 103	Construction Inspection I	3
HWAY 104	Plans & Specifications	3
HWAY 105	Work Zone Traffic Controls	3
HWAY 106	Ethics & Professionalism	3
HWAY 207	Erosion & Sediment Control	3
HWAY 120	Geology for Technicians	2
HWAY 221	Highway Surveying	3
HWAY 203	Construction Inspection II	3
<b>Component Total</b>		<b>27</b>
<i>*Note: DOH Certification is required as documentation for all DOH-coded.</i>		
<b>Component III - Technical Electives Construction Specialization</b>		
HWAY 115	Bridge Inspection I	3
HWAY 215	Bridge Inspection II	3
HWAY 202	Heavy Construction Methods II	3
HWAY 140	Highway Bridge Calculations	3
HWAY 150	Structures I	3
HWAY 240	Construction Calculations	3
HWAY 250	Structures II	3
HWAY 252	Structures III	3
HWAY 255	Bridge Inspection Cert. / Review	3
HWAY 299	Special Topics: HET	varies
WVDH	Any WVDH coded course	varies
<b>Component Total</b>		<b>24</b>

*\*\*Other subjects may be approved by the academic advisor as Technical Electives*

## Associate in Applied Science

# HUMAN SERVICES AND REHABILITATION STUDIES

### PROGRAM DESCRIPTION

Human service and rehabilitation practitioners are helping agents that assist individuals, groups, families, and communities in developing skills and supports that increase satisfaction and success in living, learning, working, social and/or spiritual environments of choice. To help others better cope with stress, change, and crisis, the HSRS program prepares students to blend together an array of community resources and natural supports, and to offer specialized assistance promoting well-being and self-determination. Coursework and field experiences ready students with interdisciplinary knowledge, skills, attitudes, and values for direct and indirect service to at-risk populations, including those with disabilities. Accessibility, accountability, and coordination of services and supports system-wide is emphasized, including prevention, remediation, rehabilitation, and recovery. The HSRS program is aligned with competencies found in human services and rehabilitation studies, such as participant empowerment, community networking, and advocacy. Students have opportunity to specialize in various program concentrations: Human Services and Rehabilitation; Addictions Counseling; Autism Intervention and Education; Peer Support Specialist; Psychiatric Rehabilitation; and/or Youth Development. Relevant professional disciplines include psychiatry, psychology, nursing, social work, counseling, rehabilitation, human resource development, and adult education.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, students will:

- Gain knowledge in psychiatric, developmental, and substance abuse disorders.
- Acquire person-centered principles, values, attitudes to facilitate recovery and rehabilitation of people with disabilities
- Use skills to promote choice, change, resource access, and optimal community living
- Be skilled in crisis prevention and intervention (CPI)
- Be prepared, after work requirement to sit for CPRP exam
- Participate in multi-disciplinary networks, professional and community organizations
- Complete career plan and prepare for baccalaureate program and lifelong learning
- Be aware of WV human service systems and allied health roles and functions
- Have mastery in the General Education Core Learning outcomes

### PROGRAM ASSESSMENT

Students are assessed on their knowledge, understanding, and ability to apply their skills and techniques through: tests, presentations, person-centered supportive counseling demonstrations, portfolio, practicum and evaluations from site supervisors.

**TRANSFER BACCALAUREATE OPTIONS**

- University of Charleston
- West Virginia University

**OTHER INFORMATION**

The HSRS program prepares the student to sit for the Certified Psychiatric Rehabilitation Practitioner (CPRP) exam administered by the Psychiatric Rehabilitation Association (PRA).

**CAREERS**

Psychiatric Rehabilitation Practitioner

Residential Supervisor

Job Coach

Transitional Residence Manager

Recovery Educator

Wellness Coach

Human Service Worker

Rehabilitation Counselor

Addiction Counselor

Program Director



## HUMAN SERVICES AND REHABILITATION STUDIES

## ASSOCIATE IN APPLIED SCIENCE DEGREE

<b>First Semester</b>		
ENGL 101	English Composition I	3
ATEC 105, 115	Computer Literacy OR Fundamentals of Business Computer Applications	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 125	Crisis Prevention	3
HSRS 232	Substance Abuse Disorders	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
COMM 100	Oral Communication	3
PSYC 101 or PSYC 201	General Psychology OR Lifespan Development	3
MATH	Any College Level Math	3
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 126	Impairments, Disabilities and Handicaps	3
HSRS Elective	Restricted Elective (Any HSRS course outside of major)	3
	<b>Semester Total</b>	<b>18</b>
<b>Third Semester</b>		
BIOL	Any college level Biology Course	3
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 223	Leadership and Accountability in Behavioral Systems	3
HSRS 230	Developmental Disabilities	3
HSRS 231	Psychiatric Disabilities	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
HSRS 295	Human Services Seminar	1
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 225	Psychiatric Rehabilitation IV: Practicum (240 hours)	3
HSRS	Any HSRS elective outside of major	2
HUMN 101	Introduction to Humanities	3
	<b>Semester Total</b>	<b>12</b>

*\*Must Pass All Core Courses With A C Or Better*

# Certificate in Applied Science

## HUMAN SERVICES AND REHABILITATION STUDIES

### PROGRAM DESCRIPTION

This program meets the expanding need for community-based human service generalist practitioners to respond to the issues of psychiatric disabilities, addiction, and developmental disabilities. Advances in behavioral and social sciences have led to the emergence of a body of scientific research and its applications in technology for today's services. Human service technology affords practitioners the capacity for significant contributions to the effective delivery of behavioral health care in communities. Human Services and Rehabilitation Studies many professional disciplines, including psychiatry, psychology, nursing, social work, counseling, adult education, and rehabilitation.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, students will:

- Gain knowledge in psychiatric, developmental, and substance abuse disorders.
- Acquire person-centered principles, values, and attitudes to facilitate recovery and rehabilitation of people with disabilities
- Use skills to promote choice, change, resource access, and optimal community living
- Be skilled in crisis prevention and intervention (CPI)
- Be prepared, after work requirement to sit, for CPRP exam
- Participate in multi-disciplinary networks, professional, and community organizations
- Complete career plan and prepare for baccalaureate program and lifelong learning
- Be aware of WV human service systems and allied health roles and functions
- Have mastery in the General Education Core Learning outcomes

### PROGRAM ASSESSMENT

Students are assessed on their knowledge, understanding, and ability to apply their skills and techniques through: tests, presentations, person-centered supportive counseling demonstrations, portfolio, practicum and evaluations from site supervisors.

### TRANSFER OPTIONS

- This Certificate of Applied Science degree leads to an Associate in Applied Science Degree in Human Services and Rehabilitation Studies

### OTHER INFORMATION

The HSRS program prepares the student to sit for the Certified Psychiatric Rehabilitation Practitioner (CPRP) exam administered by the Psychiatric Rehabilitation Association (PRA).

**CAREERS**

- Psychiatric Rehabilitation Practitioner
- Day Treatment Coordinator
- Residential Supervisor
- Job Coach
- Vocational Aide
- Transitional Residence Manager
- Recovery Educator
- Wellness Coach
- Human Service Worker
- Developmental Disabilities Case Worker
- Substance Abuse Program Assistant
- Rehabilitation Counselor
- Addiction Counselor
- Program Director
- Mental Health Aide
- Group Facilitator

**HUMAN SERVICES AND REHABILITATION STUDIES**

**CERTIFICATE IN APPLIED SCIENCE DEGREE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 125	Crisis Prevention	3
HSRS 221	Psychiatric Rehabilitation II	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
MATH	Any College Level Math	3
HSRS 230	Developmental Disabilities	3
HSRS 231	Psychiatric Disabilities	3
HSRS 232	Substance Abuse Disorders	3
HSRS 222	Psychiatric Rehabilitation III	3
<b>Semester Total</b>		<b>15</b>

*\*Must Pass All Core Courses With A C Or Better*

# Associate in Applied Science Certificate in Applied Science HUMAN SERVICES AND REHABILITATION STUDIES CONCENTRATION: ADDICTIONS COUNSELING

## PROGRAM DESCRIPTION

Addiction is the number one public health issue in the United States today. According to the U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA), approximately 22.1 million people aged 12 or older needed treatment for a substance use disorder in 2010. This program is designed to prepare students for careers in addiction counseling and to enhance the knowledge and skills of those already working in the field. Skills include individual, family and group counseling techniques, as well as assessment, treatment planning, prevention and other topics related to addiction. This program was designed to prepare students to become an alcohol and drug counselor (ADC) in compliance with the standards set by the West Virginia Certification Board for Addiction and Prevention Professionals (WVCBAPP).

## PROGRAM GOALS AND OBJECTIVES

- Prepare data, utilize assessments, and create treatment plans
- Demonstrate person-centered teaching/counseling/support strategies
- Recognize stages of change and implement intervention strategies
- Apply motivational interviewing skills in the counseling relationship
- Demonstrate 12 Core Functions of an addictions counselor
- Apply various assessment tools in regard to identifying chemical dependency
- Complete a career plan and be academically prepared for lifelong learning and professional growth.
- Practice addictions recovery by promoting choice, societal change, access to resources, and holistic approaches, and optimal community-based living
- Acquire proficiency in non-violent crisis prevention intervention and

## PROGRAM ASSESSMENT

Program outcomes are assessed systematically and comprehensively by didactic course reviews, clinical performance evaluations, externally assessed by clinical supervisor evaluations, employer feedback, student/graduate surveys, and faculty evaluation. General education outcomes are assessed through General Education Portfolio

**TRANSFER BACCALAUREATE OPTIONS**

- WVSU – AH and Rehab Leadership
- Program serves as minor at WVSU
- WVU – BA Pathway

**OTHER INFORMATION**

[www.bridgevalley.edu](http://www.bridgevalley.edu)

**CAREERS**

The U.S. Department of Labor's Bureau of Labor Statistics reports that employment of substance abuse and behavioral disorder counselors is projected to grow 31 percent from 2012 to 2022, much faster than the average for all occupations. Growth is expected as addiction and mental health counseling services are increasingly covered by insurance policies. The demand for rehabilitation, substance abuse, and behavioral disorder counselors is particularly strong due to the increasingly high rate of recidivism. Additionally, individuals with substance abuse related charges are being court ordered into residential treatment facilities rather than into the correctional system. Graduates can expect to find employment in:

- Private and Non-profit Treatment Facilities
- Correctional Institutions
- Hospitals
- Local and State governments
- Outpatient care centers
- Family services organizations
- Residential facilities

**SALARY**

\$25,410 - \$60,000

Median annual wage: \$38, 520

HUMAN SERVICES AND REHABILITATION STUDIES  
CONCENTRATION: ADDICTION COUNSELING  
ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
ENGL 101	English Composition I	3
A TEC 105, 115	Computer Literacy OR Fundamentals of Business Computer Applications	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 125	Crisis Prevention	3
HSRS 232	Substance Abuse Disorders	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
HSRS Elective	Restricted Elective (Any HSRS Course outside of major)	1
PSYC 101 or PSYC 201	General Psychology OR Lifespan Psychology	3
MATH	Any College Level Math	3
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 290	Intake, Assessments, and Diagnosis in Addictions	3
HSRS 293	Family and Addictions	3
<b>Semester Total</b>		<b>16</b>
<b>Third Semester</b>		
BIOL	Any College Level Biology Course	3
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 297	Motivational Interviewing in Addictions	3
HUMN 101	Introduction to Humanities	3
HSRS 296	Co-Occuring Disorders in Addiction	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
HSRS 295	Human Services Seminar	1
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 292	Rehabilitation Case Management	3
HSRS 294	Treatments and Supports in Addiction	3
HSRS 298	Clinical Practice in Addiction (300 Hrs)	4
<b>Semester Total</b>		<b>14</b>

*\*Must Pass All Core Courses With A C Or Better*

**HUMAN SERVICES AND REHABILITATION STUDIES****CONCENTRATION: ADDICTION COUNSELING****CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 232	Substance Abuse Disorders	3
ENGL 101	English Composition I	3
HSRS 123	Psychiatric Rehabilitation I	3
MATH	Any college level Math	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
HSRS 290	Intake, Assessment and Diagnosis in Addiction	3
HSRS 296	Co-occurring Disorders in Addictions	3
HSRS 294	Treatments and Supports in Addictions	3
HSRS 297	Motivational Interviewing in Addictions	3
Elective	Restricted Elective (Program Director approved clinical)	3
<b>Semester Total</b>		<b>15</b>

*\*Must Pass All Core Courses With A C Or Better*

## Associate in Applied Science Certificate in Applied Science HUMAN SERVICES AND REHABILITATION STUDIES CONCENTRATION: AUTISM INTERVENTION AND EDUCATION

### PROGRAM DESCRIPTION

The Autism Intervention and Education concentration is designed as a first step to meet the training and educational requirements for the role of Applied Behavioral Analyst/interventionist. The ABA therapist works with children and families of children with autism in the home and school environments improving the person's quality of life and social, behavioral, and academic skills to support a level of independence.

### PROGRAM GOALS AND OBJECTIVES

The program will address the effects of this developmental disorder including, but not limited to:

- Gain knowledge of Autism symptomology, signs, and potential causes
- Acquire understanding of the antecedents, behaviors, and consequences of Autism
- Be skilled in intervention and treatment techniques
- Gain knowledge of the legal aspects of autism and education
- Be skilled in research-based applied behavioral analysis and discrete trail teaching interventions
- Demonstrate proficiency in applying approaches of B.F. Skinner and Ivar Lovaas

### PROGRAM ASSESSMENT

Students will be assessed on their knowledge, understanding, and ability to apply their skills and techniques through: testing, research projects, oral presentations, practicum experience portfolios, and evaluations from site supervisors

### TRANSFER BACCALAUREATE OPTIONS:

- Articulation Agreement with WVSU
- Program serves as a minor at WVSU
- WVU Pathway Program
- University of Charleston

### OTHER INFORMATION

[www.bridgevalley.edu](http://www.bridgevalley.edu)



**CAREERS**

This specialization provides coursework and experience aimed at providing students with the knowledge, skills and attitudes needed to work and interact with people who have an Autism Spectrum Disorder diagnosis. Graduates of this degree may expect to find employment in areas such as school systems, Waiver programs, developmental disabilities agencies (both private and State/Federal level) in positions such as therapeutic consultants, early intervention specialist, autism mentors, and adult services specialists. According to the US Dept. of Labor Occupational Outlook Handbook Statistics, students can expect to earn the following wages:

**SALARY**

\$25,410 - \$60,000

Median annual wage: \$38, 520

**HUMAN SERVICES AND REHABILITATION STUDIES**  
**CONCENTRATION: AUTISM INTERVENTION AND EDUCATION**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
HUMN 101	Introduction to Humanities	3
ATEC 105,115	Computer OR Fundamentals of Business Computer Applications	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 130	Introduction to Autism	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
COMM 100	Oral Communication	3
HSRS 123	Psychiatric Rehabilitation I	3
MATH	Any college level Math	3
HSRS 140	Introduction to ASD Research	3
HSRS 210	Introduction to Applied Behavioral Analysis	3
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
BIOL	Any College Level Biology	3
HSRS 233	Assessments in ASD	3
HSRS 283	Practicum I: Home-Based (120 hours)	3
HSRS	Restricted Elective in HSRS	2
HSRS 220	Legal Aspects of Autism	3
HSRS 271	Childhood Psychiatric Disorders	3
<b>Semester Total</b>		<b>17</b>
<b>Fourth Semester</b>		
HSRS 295	Human Services Seminar	1
HSRS 285	Practicum II: School-Based (120 hours)	3
HSRS	Restricted Elective in HSRS	3
PSYC 101/201	General Psychology OR PSYC 201 Lifespan Development	3
HSRS 234	Treatments in ASD	3
<b>Semester Total</b>		<b>13</b>

*\*Must Pass All Core Courses With A C Or Better*

**HUMAN SERVICES AND REHABILITATION STUDIES**  
**CONCENTRATION: AUTISM INTERVENTION AND EDUCATION**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MATH	Any college level Math	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 130	Introduction to Autism	3
HSRS 140	Introduction to ASD Research	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 233	Assessments in ASD	3
HSRS 210	Introduction to Applied Behavioral Analysis	3
HSRS 220	Legal Aspects of Autism Intervention and Education	3
HSRS 234	Treatments in ASD	3
<b>Semester Total</b>		<b>15</b>

*\*Must Pass All Core Courses With A C Or Better*

## Associate in Applied Science Certificate in Applied Science HUMAN SERVICES AND REHABILITATION STUDIES CONCENTRATION: PEER SUPPORT SPECIALIST

### PROGRAM DESCRIPTION

This concentration is for students who wish to further develop knowledge, skills, and attitudes necessary to mutually support and educate peers in the recovery process, including those with mental health, trauma experiences, and/or substance abuse challenges. Students learn to inspire hope, share relevant narratives, and promote rehabilitation and recovery through role-modeling self-help values, self-care, and person-centered strategies. This program is designed to meet certification training and educational requirements for the growing role of peers-as-providers. Students serve as role models and change-agents for persons who are in recovery by encouraging health and wellness, empowerment, and development of natural supports.

### PROGRAM GOALS AND OBJECTIVES

Upon completion, students are expected to:

- Demonstrate understanding of peer support roles and responsibilities
- Differentiate between recovery goals and treatment goals
- Facilitate creation of wellness and recovery plans
- Utilize self-advocacy and systems advocacy
- Identify stages of change and person centered recovery paths
- Role-model peer support values and ethics
- Discern applicable use of recovery narratives
- Demonstrate culturally appropriate connecting skills
- Exhibit awareness of family and group dynamics
- Display interpersonal skills and coaching techniques

### PROGRAM ASSESSMENT

Students are assessed on their knowledge, understanding, and ability to apply their skills and techniques through: tests, presentations, peer counseling demonstrations, field experiences, practicum and evaluations from site supervisors.

### TRANSFER BACCALAUREATE OPTIONS

- Articulation agreement with WVSU

**OTHER INFORMATION**

Students successfully completing this training are eligible to:

- apply for WV State Certification and testing for (PR) Peer recovery; wvcbapp.org
- become a Certified WRAP Facilitator
- opportunity for earning experiential learning credits based on an individual's lived experiences and background in the field of peer support

**CAREERS**

Veteran Peer Support Specialist

Veteran Peer Support Apprentice

Recovery Coach, Wellness Coach

Peer Recovery Support Liaison

Mental Health Recovery Educator

Peer Mentor, Counselor, Navigator

Certified Peer Specialist

Advocate, Human Service Worker

Peer-Run Program Director

Self-Help Group Facilitator

**HUMAN SERVICES AND REHABILITATION STUDIES**  
**CONCENTRATION: PEER SUPPORT SPECIALIST**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
PHED 101	Health and Wellness	2
MATH	Any college level Math	3
HSRS 106	Peer Support Specialist I	4
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
<b>Semester Total</b>		<b>14</b>
<b>Second Semester</b>		
COMM 100	Oral Communication	3
ATEC 105, 115	Computer Literacy OR Fundamentals of Business Computer Applications	3
HSRS 107	Peer Support Specialist II	4
HSRS 121	WRAP Seminar I	1
HSRS 221	Psychiatric Rehabilitation II	3
<b>Semester Total</b>		<b>15</b>
<b>Summer Semester</b>		
HSRS 291	WRAP Seminar II	3
<b>Semester Total</b>		<b>3</b>
<b>Third Semester</b>		
BIOL	Any College Level Biology	3
HSRS 200	Community Reconnection & Navigating	3
HSRS 201	Advocacy Skills for Peer Support	3
HSRS 217	Peer Support Specialist III	4
SOC SCI	HUMN 101/SOCI 101/ PSYC 101	3
<b>Semester Total</b>		<b>16</b>
<b>Fourth Semester</b>		
HSRS 295	Human Services Seminar	1
HSRS 272	Trauma-Informed Support and Compassion Fatigue	3
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 280	Practicum: Peer Recovery Support Services	3
HSRS 293	Family and Addictions	3
<b>Semester Total</b>		<b>13</b>

*\*Must Pass All Core Courses With A C Or Better*

**HUMAN SERVICES AND REHABILITATION STUDIES**  
**CONCENTRATION: PEER SUPPORT SPECIALIST**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ATEC 105, 115	Computer Literacy OR Fundamentals of Business Computer Applications	3
ENGL 101	English Composition I	3
HSRS 106	Peer Support Specialist I	4
HSRS 107	Peer Support Specialist II	4
HSRS 120	Intro to HSRS	3
HSRS 121	WRAP Seminar I	1
	<b>Semester Total</b>	<b>18</b>
<b>Second Semester</b>		
MATH	Any college level Math	3
PHED 101	Health and Wellness	2
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 217	Peer Support Specialist III	4
	<b>Semester Total</b>	<b>12</b>

*\*Must Pass All Core Courses With A C Or Better*

# Associate in Applied Science Certificate in Applied Science HUMAN SERVICES AND REHABILITATION STUDIES CONCENTRATION: YOUTH DEVELOPMENT

## PROGRAM DESCRIPTION

The Youth Development concentration offers students the opportunity to further their knowledge and skills in modern techniques geared toward the prevention, recovery, and rehabilitation of at-risk and incarcerated youth. The program prepares students to implement person-centered life skill plans, design and monitor daily activities, provide support services to youth, based on their individual service needs and provide crisis prevention/intervention when needed.

## PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, students will:

- Gain knowledge and skills in: child/adolescent and behaviors/disorders.
- Students will acquire the person-centered principles, values, and attitudes
- Acquire proficiency in non-violent crisis prevention and intervention in accordance with the national standard.
- Complete a career plan and be academically prepared to enter a baccalaureate program to enhance lifelong learning and professional growth.
- Be conversant with and skilled in youth development specific ethical practice and West Virginia Law for incarcerated youth and be accountable to the individuals and programs they serve.

## PROGRAM ASSESSMENT

Students will be assessed on their knowledge, understanding, and ability to apply their skills and techniques through: testing, research projects, oral presentations, Practicum experience portfolios, and evaluations from site supervisors.

## TRANSFER BACCALAUREATE OPTIONS

- Articulation Agreement with WVSU
- Program serves as a minor at WVSU
- WVU Pathway Program

## OTHER INFORMATION

[www.bridgevalley.edu](http://www.bridgevalley.edu)

## CAREERS

Graduates of this degree program may expect to find employment in juvenile detention centers, residential youth programs, programs affiliated with the judicial system, special education programs including after school programs and adolescent behavioral health care centers.



**HUMAN SERVICES AND REHABILITATION STUDIES****CONCENTRATION: YOUTH DEVELOPMENT****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
HUMN 101	Introduction to Humanities	3
A TEC 105, 115	Computer Literacy OR Business Computer Applications	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 125	Crisis Prevention	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
COMM 100	Oral Communication	3
HSRS 123	Psychiatric Rehabilitation I	3
MATH	Any 100 College Level Math	3
HSRS 127	Youth Development Wellness	3
HSRS 232	Substance Abuse Disorders	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
PSYC 101/201	General Psychology OR PSYC 201 Lifespan Development	3
BIOL	Any 100 Level Biology	3
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 271	Childhood Psychiatric Disorders	3
HSRS 270	Adjudicated Youth	3
HSRS 230	Developmental Disabilities	3
	<b>Semester Total</b>	<b>18</b>
<b>Fourth Semester</b>		
HSRS 295	Human Services Seminar	1
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 225	Psychiatric Rehabilitation IV: Practicum	3
HSRS	HSRS Restricted Elective	3
HSRS	HSRS Restricted Elective	2
	<b>Semester Total</b>	<b>12</b>

*\*Must Pass All Core Courses With A C Or Better*

**HUMAN SERVICES AND REHABILITATION STUDIES**  
**CONCENTRATION: YOUTH DEVELOPMENT**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MATH	Any college level Math	3
HSRS 120	Introduction to Human Services and Rehabilitation Studies	3
HSRS 123	Psychiatric Rehabilitation I	3
HSRS 125	Crisis Prevention	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
HSRS 221	Psychiatric Rehabilitation II	3
HSRS 271	Childhood Psychiatric Disorders	3
HSRS 222	Psychiatric Rehabilitation III	3
HSRS 232	Substance Abuse Disorders	3
HSRS 270	Adjudicated Youth	3
<b>Semester Total</b>		<b>15</b>

*\*Must Pass All Core Courses With A C Or Better*

# Associate in Applied Science

## Certificate in Applied Science

### INDUSTRIAL PIPING DESIGN TECHNOLOGY

#### PROGRAM DESCRIPTION

A piping system transports various gases and liquids from one place to another. Piping systems are used in buildings to move air throughout the premises and in petroleum distillation, chemical processes and paper pulping among other industrial areas. A piping designer creates the drawings for the operation, construction and layout of the system of pipes.

For those wishing to become a piping designer, it is necessary to learn computer-aided drafting (CAD) at a 2-year postsecondary school. To prepare for entry into one of these schools, high school courses in mathematics, science, computer technology, design, computer graphics and, if possible, drafting should be taken.

#### PROGRAM GOALS AND OBJECTIVES

The Candidate will demonstrate by test or by degree or certificate awarded the following skills:

1. Use generally accepted practices to route, support and assure pipe stays within an existing layout of process equipment arrangement.
2. Identify basic process equipment, pipe, valves, and fittings from either photographs, drawings or generally accepted 2D and 3D symbols and identifies their nozzles and other points of connection and attachment.
3. Trace out, sketch and correctly identify process lines on the Process Engineer's P&ID and on a corresponding 2D or 3D representation (Piping Isometrics, Plans, Sections, Renderings) and verify their correctness.
4. Identify and list the proper materials for a given piping specification.
5. Identify situations requiring the application of publicly available piping design standards, including ASME B31.3, B31.1 and API 1104.
6. Design piping systems appropriately to commonly available fabrication and erection methods.
7. Design pipe systems to accommodate reasonably foreseeable inspection and maintenance practices.
8. Use a Computer Aided Design (CAD) system to correctly represent a schematic and dimensioned piping drawings and backup electronic client appropriately.

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Piping Engineers and Designers. General education outcomes are assessed by the ACT WorkKeys exit examination.

**TRANSFER BACCALAUREATE OPTION**

The Industrial Piping Design Technology is an Associate in Applied Science program designed to provide skills for immediate entry to the workforce. Students wishing to continue their studies with a Baccalaureate program discuss program options with their academic advisor.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level design and drafting coursework is not necessary for entrance into Industrial Piping Design Technology program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience or certifications. Please contact the department chair.

**CAREERS IN INDUSTRIAL PIPING DESIGN TECHNOLOGY**

Career information.

All wage information is based on the data from the U.S. Department of Labor Bureau of Labor Statistics (BLS) May 2013. All apprenticeship information is from U.S. Department of Labor Office of Apprenticeship.

**INDUSTRIAL PIPING DESIGN TECHNOLOGY****CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
AMTM 120	Introduction to Piping	2
DRFT 120	Drafting I	2
ENGL 101	English Composition I	3
GNST 102	First Year Experience	1
MATH 130	College Algebra	3
	GEC-3 Elective	3
<b>Semester Total</b>		<b>14</b>
<b>Second Semester</b>		
AMTM 121	Advanced Piping – Process Plant Layout & Design	2
CIET 114	Statics	3
DRFT 121	Drafting II	2
DRFT 287	PDMS	3
GNET 107	Introduction to Computer Applications for Technicians	3
MATH 140	Trigonometry	3
<b>Semester Total</b>		<b>16</b>

**CONTINUED STUDIES FOR AN****ASSOCIATE IN APPLIED SCIENCE**

<b>Summer Semester</b>		
DRFT 290	Internship in CAD	2
<b>Semester Total</b>		<b>2</b>
<b>Third Semester</b>		
CIET 115	Strengths of Materials	3
CIET 131	Surveying I	3
DRFT 291	Advanced PDMS	3
MEET 241	Principles of Fluid Power	1
MEET 242	Components of Fluid Power	1
MEET 245	Fluid Power Lab	1
	Technical Elective	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
BUSN 122	Interpersonal Relations: Customer	3
GNET 111	Public Speaking for Technology	1
GNET 212	Project Management	3
PHYS 101	General Physics I	3
	Technical Elective	3
<b>Semester Total</b>		<b>13</b>

# Associate in Science

## INFORMATION TECHNOLOGY

### PROGRAM DESCRIPTION

The Technical Studies in Information Technology program is offered as part of a statewide Information Technology (IT) certification program. This program offers students a solid background in computer technology complemented by a full array of vendor certification training choices. The program is available in a web delivery format by community colleges throughout the state. Students may take courses at the local institution, where provided, and take those offered by other colleges via the web, if not available at the local institution (coded below with the prefix "IT").

Students must complete a series of courses in four components:

- Component 1: General Studies;
- Component 2: Technical Core;
- Component 3: Certifications; and
- Component 4; On-the -job Training.

Component 3: Offers the student a choice from a variety of vendor certifications.

### PROGRAM GOALS AND OBJECTIVES

In addition to the learning outcomes set forth in the general of education policy of the BridgeValley Community and Technical College for the Associate in Science degree, the learning outcomes of the Associate in Science in Computer and Information Technology program prepare students to:

1. Maintain, repair, and support computer hardware and personal PC and network operating systems in an effective and efficient manner.
2. Design, install, maintain and operate small office and branch level network infrastructure.
3. Install or update and configure computer application software, network security software, and document computer systems and networks.
4. Applying skills in basic computer programming and web-based application to operate networks and host basic web-sites.
5. Function effectively in multidisciplinary teams and demonstrate an ability to communicate effectively in written and oral formats.
6. Appreciate the need for life-long learning and continue to maintain and develop their technical skills.
7. Exhibit a broad education and knowledge of contemporary issues in a global, societal contest, and demonstrate a general knowledge of professional behavior and ethical responsibility toward employers, customers, and society.

**PROGRAM ASSESSMENT**

Course outcomes are assessed by exit examinations in each course. Program outcomes are assessed in a designated “capstone” course. The student will also be required to submit a portfolio to fulfill general education requirements. Graduating students are eligible to sit for the CompTIA A+, CompTIA NET+, Cisco Certified Entry Networking Technician (CCENT) and Cisco Certified Network Associate (CCNA) Certification Exams.

**TRANSFER BACCALAUREATE OPTIONS****OTHER INFORMATION**

(LINKS TO ADMISSION REQUIREMENTS, SPECIFIED VACCINATIONS, SAFETY REQUIREMENTS, ETC.)

**CAREERS**

Graduates of the program typically have strengths in the building, testing, operation, and maintenance of existing hardware and software systems.

## INFORMATION TECHNOLOGY

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
ENGL 101	English Composition I (GEC 1)	3
GNST 102	First Year Experience	1
INFT 110	Computer Architecture & Troubleshooting	4
	Lab Science Elective (GEC 2)	4
MATH 130	College Algebra	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ENGL 102	English Composition II (GEC 1)	3
INFT 121	Network Operating Systems	3
INFT 131	Networking I (GEC 4)	4
INFT 132	Networking II	4
	Elective (GEC 3)	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
CSCT 218	Scripting (PowerShell)	3
INFT 231	Networking III	4
INFT 232	Networking IV	4
INFT 280	Intro to Database Systems (GEC 4)	3
ISST 250	Security Fundamentals	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
INFT 260	Diaster Recovery	3
INFT 290	Project Management	3
INFT 295	Seminar	1
INFT 228	Web Server Administration	3
	Technical Elective(s)	4
	<b>Semester Total</b>	<b>14</b>



# Associate in Applied Science

## Certificate in Applied Science

### MACHINE TOOL TECHNOLOGY

#### PROGRAM DESCRIPTION

Machinists set up and operate a variety of computer-controlled and mechanically-controlled machine tools to produce precision metal parts, instruments, and tools. Machinists use machine tools, such as lathes, milling machines, and machining centers, to produce precision metal parts. Production machinists may produce large quantities of a specific part, but machinists frequently produce small batches or one-of-a-kind items. Machinists use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications.

The Machine Tool Technology (AAS-MTT, CAS-MTT) degree program provides a highly interactive hands-on course of study that prepares graduates for careers in modern industry. The first year of the program (CAS) focuses on manual machine tools and processes. The second year of the program (AAS) focuses on Computer Numerically Controlled (CNC) equipment, processes and programming.

The MMT program uses an innovative block-scheduled cohort model to deliver classes, so students have the opportunity to participate in long-term in-depth internships with participating industrial partners. Program courses are offered two days a week in approximately 8-hour blocks for five semesters. Qualifying students may intern with industry partners on non-class days to obtain a valuable background of real world applications throughout the program. Graduates who have participated in the internship program enter the work force with not just a degree, but also the equivalent of a year of professional industrial experience.

#### PROGRAM GOALS AND OBJECTIVES

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

1. Effectively and safely operate manual machine equipment, such as hand tools, lathes, mills, grinders, and drills (AAS).
2. Configure and operate CNC equipment. (AAS)
3. Read and interpret blueprints per industry standards. (CAS, AAS)
4. Plan and execute part fabrication from initial specifications. (CAS, AAS)
5. Communicate effectively in written, oral and graphical forms. (CAS, AAS)
6. Work effectively in teams with other machinists, engineers, technicians, and production personnel. (CAS, AAS)
7. Apply industry-based safety standards in the work environment. (CAS, AAS)
8. Understand professional and ethical responsibility to their field and to society. (AAS)
9. Appreciate cultural and ethnic diversity in the workplace. (AAS)

10. Understand the need to maintain their technical skills and develop new ones through personal development and continued learning. (AAS)

**PROGRAM ASSESSMENT**

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Manufacturing Engineers EET Outcomes Assessment exit exam, which assesses student knowledge in a variety of areas of the electrical engineering technology field. General education outcomes are assessed by the ACT WorkKeys exit examination.

**TRANSFER BACCALAUREATE OPTION**

The Machine Tool Technology is an Associate in Applied Science program designed to provide skills for immediate entry to the workforce. Students wishing to continue their studies with a Baccalaureate program discuss program options with their academic advisor.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS**

High school level machining and drafting coursework is not necessary for entrance into Machine Tool Technology program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement.

Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience or certifications. Please contact the department chair.

**CAREERS IN ADVANCED MACHINE TOOL TECHNOLOGY**

Machinists work in environments from large industries to small shops. Typical positions include: Gear Machinist, Journeyman Machinist, Machine Operator, Machine Repair Person, Machinist, Maintenance Machinist, Maintenance Specialist, Production Machinist, Set-Up Machinist, and Tool Room Machinist.

Based on data from the Bureau of Labor Statistics the national median wage for machinists was \$18.99 per hour or \$39,500 annually. A common career path to is enter an apprenticeship for specialization. There are currently 11 recognized appreciable specialties: fixture maker; instrument maker; instrument-maker and repairer; machinist, automotive; machinist, experimental; machinist; machinist; machinist, outside (ship-boat manufacturing); maintenance machinist; rocket-motor mechanic; test technician.

Many machinists continue their training, primarily through apprenticeships, to become tool and die makers. Based on data from the Bureau of Labor Statistics the national median wage for tool and die makers had a national median of \$22.60 per hour or \$58,500 annually. There are currently 20 recognized apprentice able specialties in the field of tool and die making: die finisher; die maker; mold maker, die-casting and plastic molding; die maker, stamping; die maker, trim; die making; die sinker; plastic tool maker; saw maker; tap-and-die-maker technician; tool maker; tool making; tool maker,

## Academic Programs

Major	3712
Code	1706

bench; tool-and-die maker; hardener - tool & die; tool & die making (inspector set up & layout); die maker; die maker, bench, stamping; plastic-fixture builder; die maker, wire drawing.

All wage information is based on the data from the U.S. Department of Labor Bureau of Labor Statistics (BLS) May 2012. All apprenticeship information is from U.S. Department of Labor Office of Apprenticeship.

**MACHINE TOOL TECHNOLOGY**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
GNST 102	First Year Experience	1
GNET 107	Basic Computer Applications for Technicians	3
GNET 121	Fundamentals of Industrial Safety OSHA 10	1
MATH 115	Applied Technical Math (GEC 2)	3
MACH 121	Blueprint Reading	2
MACH 123	Precision Measurement and Quality Assurance	2
MACH 131	Introduction to Machining	4
<b>Semester Total</b>		<b>16</b>
<b>Second Semester</b>		
ENGL 101	English Composition I (GEC 1)	3
MACH 125	Advanced Measurement	1
MACH 141	Metallurgy and machining Theory	2
MACH 151	Manual Machine Tool - Grinding and Polishing	2
MACH 153	Manual Machine Tool - Milling	2
MACH 155	Manual Machine Tool - Turning	2
MACH 191	NIMS Credentialing - Manual Machine Tools	3
<b>Semester Total</b>		<b>15</b>

*Continued Studies for an*  
**ASSOCIATE IN APPLIED SCIENCE**

<b>Summer Semester</b>		
WLDT 101	Introduction to Welding Processes Part I	3
WLDT 102	Introduction to Welding Processes Part II	3
<b>Semester Total</b>		<b>6</b>
<b>Third Semester</b>		
MACH 261	CNG Machine Tool - Intor to Programming	4
MACH 263	CNC Machine Tool - Setup and Operation	4
MACH 271	Introduction to CAD and 3D Modeling	4
<b>Semester Total</b>		<b>12</b>
<b>Fourth Semester</b>		
MACH 275	Computer Aided Manufacturing	3
MACH 281	Theory, Maintenance and Troubleshooting	3
MACH 292	NIMS Credentialing - CNC Machine Tool	3
	Program Elective	3
<b>Semester Total</b>		<b>12</b>

# Associate in Applied Science

## MANAGEMENT

### ENTREPRENEURSHIP CONCENTRATION

#### PROGRAM DESCRIPTION

Entrepreneurship is the process of identifying a need in the marketplace and starting a business to fulfill that need. Today, entrepreneurship is seen as a vital way to grow the economy. While the emphasis of the program is the transformation of an idea into a new business venture, this program can also serve the needs of those who want to work within an existing business. Entrepreneurial abilities are needed within corporations today to assist with new product development, product innovation, new market opportunities and other needs of a growing business.

#### PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, graduates will:

- Have an appropriate mastery of general business terminology, principles, practices and skills.
- Understand the roles of manager, management theory, organizational structure and culture, and develop key managerial skills to be used at any level of management.
- Demonstrate an understanding of leadership fundamentals, effective team building, motivation theories and the strategic decision making process.
- Demonstrate an understanding of the terminology and concepts associated with managing a small business.
- Demonstrate an understanding of the business plan and gain experience in preparing one.
- Understand the entrepreneurship process from innovation to implementation

#### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. General education outcomes are assessed by a general education portfolio.

**CAREERS**

The Management program prepares graduates for employment as:

\*FIRST-LINE SUPERVISORS OR \*GENERAL AND OPERATIONS MANAGERS

- Team Leader
- Office Supervisor
- Director
- Coordinator
- Service Manager
- Business Administrator
- Business Manager
- Services Manager
- Business Owner
- General Manager
- Store Manager
- Plant Manager
- Manager Trainee
- Department Manager
- Account Executive
- Project Manager
- Foreman
- Business Owner
- First-Line Supervisor
- Property Manager
- Office Manager

\*[www.onetonline.org](http://www.onetonline.org)

**SALARY INFORMATION**

<http://www.bls.gov/ooh/management/home.htm>

**MANAGEMENT**  
**ASSOCIATE IN APPLIED SCIENCE**

**ENTREPRENEURSHIP CONCENTRATION**

<b>First Semester</b>		
ENGL 101	English Composition I	3
A TEC 115	Fundamentals of Business Computer Apps	3
BUSN 106	Introduction to Business	3
BUSN 112	Business Mathematics	3
ACCT 185	Survey of Accounting	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
MGMT 155	Fundamentals of Entrepreneurship	3
BUSN 230	Business Communications and Ethics	3
MGMT 151	Supervisory Management	3
MRKT 173	Professional Selling*	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
MGMT 170	Opportunities Analysis	2
MGMT 202	Principles of Management	3
BUSN 201	Business Law	3
MRKT 205	Fundamentals of Marketing	3
MGMT 160	Funding Your Venture	1
Elective	Restricted Elective**	2
	<b>Semester Total</b>	<b>14</b>
<b>Fourth Semester</b>		
MGMT 266	Entrepreneurship Mentorship	3
MGMT 255	Small Business Management	3
MGMT 238	Retail Management	3
ACCT 235	Integrated Computer Accounting	3
ECON 202	Principles of Macroeconomics <b>OR</b>	
ECON 201	Principles of Microeconomics	3
BUSN 298	Business Studies Seminar	1
	<b>Semester Total</b>	<b>16</b>

*\*\*Restricted Elective BUSN 201, MKRT 175 Or Permission Of Program Director.*

*\*Denotes courses that are offered only on the South Charleston campus.*

# Certificate in Applied Science

## ENTREPRENEURSHIP

### PROGRAM DESCRIPTION

Entrepreneurship is the process of identifying a need in the marketplace and starting a business to fulfill that need. Today, entrepreneurship is seen as a vital way to grow the economy. This certificate transitions fully into the A.A.S. Degree in Management Entrepreneurship Concentration.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Have an appropriate mastery of general business terminology, principles, practices and skills.
- Understand the roles of manager, management theory, organizational structure and culture, and develop key managerial skills to be used at any level of management.
- Demonstrate an understanding of leadership fundamentals, effective team building, motivation theories and the strategic decision making process.
- Demonstrate an understanding of the terminology and concepts associated with managing a small business.
- Demonstrate an understanding of the business plan and gain experience in preparing one.
- Understand the entrepreneurship process from innovation to implementation.

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams. General education outcomes are assessed by a general education portfolio.

### CAREERS

The Entrepreneurship program prepares graduates for employment as: General and Operations Manager. [www.onetonline.org](http://www.onetonline.org)

### GAINFUL EMPLOYMENT INFORMATION

The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for General/Administrative Services Manager is \$46,810 per year and only a 1% job outlook growth rate (average rate), 2012-20. Experience, education and certification all increase earning potential.

Tuition and Fees\*: \$4520 In-State Resident  
\$11420 Non-Resident  
Books\*: \$1300  
CB Certification Exam: \$395  
Graduation Rate: N/A

Job Placement Rate: 72% (college average)  
Median Loan Debt: N/A

\*Actual costs may vary.



**ENTREPRENEURSHIP**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>Curriculum</b>		
MGMT 170	Opportunities Analysis	2
MGMT 160	Funding Your Venture	1
BUSN 112	Business Mathematics	3
MGMT 151	Supervisory Management	3
BUSN 106	Introduction to Business	3
MGMT 155	Fundamentals of Entrepreneurship	3
ACCT 215	Financial Accounting	3
MRKT 205	Fundamentals of Marketing	3
ENGL 101	English Composition I	3
MGMT 202	Principles of Management	3
MGMT 255	Small Business Management	3
	<b>Total</b>	<b>30</b>

# Associate in Applied Science MANAGEMENT OCCUPATIONAL SPECIALTY CONCENTRATION

## PROGRAM DESCRIPTION

Students who select the Occupational Specialty Concentration are those who have a particular field of interest and want an associate degree in management to prepare them for a management role in that field. The student would meet with the management advisor to determine the occupational specialty courses needed.

## PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, graduates will:

- Have an appropriate mastery of general business terminology, principles, practices and skills.
- Understand the roles of manager, management theory, organizational structure and culture, and develop key managerial skills to be used at any level of management.
- Demonstrate an understanding of leadership fundamentals, effective team building, motivation theories and the strategic decision making process.
- Understand the roles and principles of the occupational specialty.

## PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. General education outcomes are assessed by general education portfolio.

## CAREERS

The Management program prepares graduates for employment as:

\*FIRST-LINE SUPERVISORS OR \*GENERAL AND OPERATIONS MANAGERS

- |                     |                          |                   |
|---------------------|--------------------------|-------------------|
| • Office Manager    | • Service Manager        | • Business Owner  |
| • Team Leader       | • Business Administrator | • General Manager |
| • Office Supervisor | • Business Manager       | • Store Manager   |
| • Director          | • Services Manager       | • Plant Manager   |
| • Coordinator       |                          |                   |

\*[www.onetonline.org](http://www.onetonline.org)

## SALARY INFORMATION

<http://www.bls.gov/ooh/management/home.htm>

**MANAGEMENT**  
**ASSOCIATE IN APPLIED SCIENCE**  
**OCCUPATIONAL SPECIALTY CONCENTRATION**

<b>First Semester</b>		
ENGI 101	English Composition I	3
MGMT 151	Supervisory Management	3
BUSN 106	Introduction to Business	3
BUSN 112	Business Mathematics	3
	Occupational Specialty Course	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
ACCT 215	Financial Accounting	3
ATEC 115	Fundamentals of Business Computer Apps	3
BUSN 230	Business Comm. & Ethics	3
BUSN 201	Business Law	3
	Occupational Specialty Course	3
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
MRKT 205	Fundamentals of Marketing	3
MGMT 202	Principles of Management	3
ECON 202	Principles of Macroeconomics <b>OR</b>	
ECON 201	Principles of Microeconomics	3
ACCT 216	Managerial Accounting	3
	Occupational Specialty Course	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
ELEC	Occupational Specialty Course <b>OR</b> Restricted Elective**	2
MGMT 255	Small Business Management	3
MGMT 238	Retail Management	3
BUSN 298	Business Studies Seminar	1
	Occupational Specialty Course	3
MGMT 253	Human Resource Management	3
<b>Semester Total</b>		<b>15</b>

\*\*Restricted Elective Busn 201, Mkrt 175 Or Permission Of Program Director.

# Associate in Applied Science MANAGEMENT WITH 2+2 TRANSFER TRACK

## PROGRAM DESCRIPTION

The Management Associate in Applied Science degree program offers students a two-year general management degree with optional concentrations in Entrepreneurship or Occupational Specialty. The 2+2 transfer track in Management provides the student with an associate in applied science degree and enables the graduate to continue in the management field to earn a baccalaureate degree.

Supervisors and managers at all levels are a vital component of all organizations-public, private, profit or not-for-profit. Management is the most fundamental function of business. Modern firms need competent managers who can address emerging issues in a global economy while dealing with global competition, ethical issues, and diverse work groups.

The types of businesses that employ graduates include state government, restaurants, supermarkets, warehouses, utility companies, insurance companies and many more.

## PROGRAM GOALS AND OBJECTIVES

Upon completion of this program, graduates will:

- Have an appropriate mastery of general business terminology, principles, practices and skills.
- Understand the roles of manager, management theory, organizational structure and culture, and develop key managerial skills to be used at any level of management.
- Demonstrate an understanding of leadership fundamentals, effective team building, motivation theories and the strategic decision making process.
- Demonstrate an understanding of the terminology and concepts associated with managing a small business.
- Demonstrate an understanding of the business plan and gain experience in preparing one.
- Have the necessary skills and competencies to continue with their education on the baccalaureate level.

## PROGRAM ASSESSMENT

Program outcomes are assessed by Capstone courses, exit interview, employer surveys and program specific exit exams, which may include ETS. The 2+2 Management outcomes are assessed according to the above in addition to the successful completion of a Baccalaureate degree. General education outcomes are assessed by general education by a general education portfolio.

**TRANSFER BACCALAUREATE OPTIONS**

- Marshall University 2+2
- West Virginia State University
- University of Charleston

**CAREERS**

The Management program prepares graduates for employment as:

**\*FIRST-LINE SUPERVISORS OR \*GENERAL AND OPERATIONS MANAGERS**

- Team Leader
- Office Supervisor
- Director
- Coordinator
- Service Manager
- Business Manager
- Services Manager
- Business Owner
- General Manager
- Manager Trainee
- Department Manager
- Project Manager
- Foreman
- Business Owner
- First-Line Supervisor
- Office Manager

\*[www.onetonline.org](http://www.onetonline.org)

**SALARY INFORMATION**

<http://www.bls.gov/ooh/management/home.htm>

**MANAGEMENT**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
BUSN 106	Introduction to Business	3
MGMT 151	Supervisory Management	3
BIOL 101	General Biology	3
BIOL 102	General Biology Lab**	1
MATH 130	College Algebra** <b>OR</b>	
BUSN 112	Business Mathematics	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ACCT 185, HUMN 101	Survey of Accounting <b>OR</b> Introduction to Humanities**	3
A TEC 115	Fundamentals of Business Computer Apps	3
ENGL 102	English Composition II	3
BUSN 296	Business Statistics** <b>OR</b>	
MGMT 155	Fundamentals of Entrepreneurship	3
MGMT 202	Principles of Management	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
BUSN 201	Business Law	3
MRKT 205	Fundamentals of Marketing	3
ACCT 215	Financial Accounting	3
BUSN 230	Business Communications and Ethics	3
ECON 202	Principles of Macroeconomics	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
ACCT 216	Managerial Accounting	3
MGMT 255	Small Business Management	3
MGMT 253	Human Resource Management	3
FINC 280, 201	Financial Management** <b>OR</b> Personal Finance	3
BUSN 266	Business Internship <b>OR</b> Restricted Elective**	1*-2
BUSN 298	Business Studies Seminar	1
	<b>Semester Total</b>	<b>14*-15</b>

\*\* Students will take designated course to complete 2+2 transfer requirements.

# Associate in Applied Science MARKETING WITH 2+2 TRANSFER TRACK

## PROGRAM DESCRIPTION

Marketing has become an important component of business. As part of marketing, advertising and sales perform valuable functions for both society and the individual firm. Individuals who choose a career in this field must possess knowledge, motivation, dedication and integrity. Employment opportunities exist in industrial, wholesale and retail areas. Marketing applies to almost every facet of the business industry.

## PROGRAM GOALS AND OBJECTIVES

- Demonstrate an understanding and proficiency with the marketing mix (four Ps) and its importance to the organization.
- Make a sales presentation using the ten-step sales process.
- Develop an integrated advertising campaign using sound advertising principles.
- Develop a social media strategy for a brand or company that is integrated with overall marketing strategy (i.e. segmentation, targeting, positioning, marketing mix).
- Demonstrate an understanding and ability to create a complete integrated marketing campaign.

## PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams, which may include ETS Associate Business Exam. The Marketing 2+2 option is assessed according to the above in addition to the successful transition/completion of a Baccalaureate degree. General education outcomes are assessed by a general education portfolio.

## TRANSFER BACCALAUREATE OPTIONS

- Marshall University
- University of Charleston
- West Virginia State University
- West Virginia University Institute of Technology

**CAREERS**

The Marketing program prepares graduates for employment as:

\*Advertising Sales agent and \*Advertising/promotion manager

- Advertising Agent
- Marketing Director
- Retail Sales Manager
- Account Executive
- Advertising Representative
- Sales Director
- Ad Buyer
- Promotions Manager
- Advertising Director

Students who go on to further their education:

\*Advertising, promotions, and marketing managers or market research analysts

- Marketing Manager
- Advertising Manager
- Marketing Executive
- Marketing Analyst
- Sales Manager
- VP of Sales/Marketing
- Market Analyst
- Research Analyst
- Business Development Specialist
- Promotions Manager
- Advertising Director

\*[www.onetonline.org](http://www.onetonline.org)

**SALARY INFORMATION**

<http://www.bls.gov/ooh/business-and-financial/market-research-analysts.htm>

<http://www.bls.gov/ooh/management/advertising-promotions-and-marketing-managers.htm>



## MARKETING

## ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
ENGI 101	English Composition I	3
MRKT 173	Professional Selling*	3
MRKT 175	Marketing Communications*	3
BUSN 106	Introduction to Business	3
MATH 130	College Algebra* <b>OR</b>	
BUSN 112	Business Mathematics	3
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
ENGL 102	English Composition II	3
ATEC 115	Fundamentals of Business Computer Apps	3
MRKT 205	Fundamentals of Marketing	3
ACCT 215	Financial Accounting* <b>OR</b>	
ACCT 185	Survey of Accounting	3
MGMT 202	Principles of Management	3
	<b>Semester Total</b>	<b>15</b>
<b>Third Semester</b>		
MRKT 220	Social Media Marketing <sup>§</sup>	3
ECON 202	Principles of Macroeconomics	3
BUSN 230	Business Communications and Ethics*	3
BUSN 201	Business Law	3
ECON 201	Principles of Microeconomics* <b>OR</b>	
BUSN 266	Business Internship AND Restricted Elective	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
MGMT 238	Retail Management <b>OR</b>	
BUSN 296	Business Statistics*	3
MRKT 250	Marketing Management <sup>§</sup>	3
ACCT 216	Managerial Accounting* <b>OR</b>	
ATEC 200	Desktop Publishing	3
BIOL 101	General Biology	3
BIOL 102	General Biology Lab*	1
BUSN 298	Business Studies Seminar	1
	Restricted Elective*	1
	<b>Semester Total</b>	<b>15</b>

\*Students will take designated course to complete 2+2 transfer requirements.

<sup>§</sup> Denotes courses that are offered only on the South Charleston campus.

# Associate in Science

## MECHANICAL ENGINEERING TECHNOLOGY

### PROGRAM DESCRIPTION

The associate in science degree Mechanical Engineering Technology (ASMET) is a two year program that applies established scientific and engineering knowledge and methods to the field of machines and manufacturing. This program is ideally suited to the person who is capable of understanding theoretical principles, but prefers to get involved with mechanical systems and processes.

The program prepares graduates with knowledge, problem solving ability, and hands-on skills to enter careers in the design, installation, manufacturing, testing, evaluation, technical sales, and/or maintenance of mechanical systems. A graduate mechanical engineering technician can select employment from many areas, such as manufacturing, maintenance, modification of design, power generation, technical laboratory operation, technical sales, testing and analysis, and field engineering services.

The AS Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. <http://www.abet.org>

### PROGRAM OBJECTIVES

In addition to the learning outcomes set forth in the general education core curriculum for the associate degree, specific outcomes for this program have been established.

Graduates of the A.S. Mechanical Engineering Technology program will, in their first several years of employment, have the ability to:

1. Work competently in technical and professional careers related to their field.
2. Communicate effectively and work in teams.
3. Continue growth in professional knowledge and competencies.
4. Achieve compensation consistent with their degree.

Course outcomes are assessed by exit examinations in each course. Program outcomes are assessed in designated courses.

### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Manufacturing Engineers EET Outcomes Assessment exit exam, which assesses student knowledge in a variety of areas of the electrical engineering technology field. General education outcomes are assessed by the ACT WorkKeys exit examination.

**TRANSFER BACCALAUREATE TRANSFER OPTIONS**

High school level mechanical, manufacturing, fluid power, welding, industrial maintenance, CAD, or drafting subjects are not necessary for entrance into the Mechanical Engineering Technology program. Beginning subjects are part of the program. The student who has completed vocational or EDGE courses, however, may receive advanced placement. Articulation Edge agreements are in place with various career-technical centers. Advanced placement is also available to the student with prior college experience. Please check with the department head or the Dean of Engineering Technology for more information.

**ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS:**

High school level mechanical, manufacturing, fluid power, welding, industrial maintenance, CAD, or drafting subjects are not necessary for entrance into the Mechanical Engineering Technology program. Beginning subjects are part of the program. The student who has completed vocational or EDGE courses, however, may receive advanced placement. Articulation Edge agreements are in place with various career-technical centers. Advanced placement is also available to the student with prior college experience. Please check with the department head or dean for more information.

**CAREERS IN MECHANICAL ENGINEERING TECHNOLOGY**

Graduates of associate degree programs typically have strengths in specifying, installing, fabricating, testing, documenting, operating, selling, and/or maintaining basic mechanical systems. Job titles of recent graduates have included: Engineering Draftsman, Engineering Technician, and Technical Supervisor.

## MECHANICAL ENGINEERING TECHNOLOGY

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
DRFT 120	Drafting I	2
ENGL 101	English Composition I (GEC 1)	3
GNST 108	Computer Applications for Technicians	3
GNST 102	First Year Experience	1
MATH 135	Technical Alegbra	3
MEET 121	Manufacturing Processes I	3
	Technical Elective(s)	3
<b>Semester Total</b>		<b>18</b>
<b>Second Semester</b>		
CIET 114	Statics	3
DRFT 121	Drafting II	2
ENGL 102	English Composition II (GEC 1)	3
MATH 140	Trigonometry (GEC 4)	3
MEET 122	Manufacturing Processes II	3
PHYS 101	General Physics I (GEC 2)	4
<b>Semester Total</b>		<b>18</b>
<b>Third Semester</b>		
CIET 115	Strength of Materials	3
ECET 110	DC Circuit Analysis	4
GNET 111	Public Speaking for Tech (GEC-3)	1
MEET 225	Mechanical Design I	3
MEET 241	Principles of Fluid Power	1
MEET 242	Components of Fluid Power	1
MEET 243	Hydraulic Circuit Design	1
MEET 245	Fluid Power Laboratory	1
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
MATH 155	Technical Calculus (GEC-4)	3
MEET 226	Mechanical Design II	3
MEET 250	Climate Control	4
PHYS 102	General Physics II (GEC-2)	4
	Technical Elective(s)	1
<b>Semester Total</b>		<b>15</b>

# Associate in Applied Science

## MEDICAL ASSISTING

### PROGRAM DESCRIPTION

This two-year program is designed for the individual who is interested in the following administrative and clinical duties:

- Receiving patients and their family members and managing public relations
- Acting as an informational and educational resource for the patient
- Handling telephone, written communications, and appointment scheduling
- Managing patient records
- Bookkeeping and insurance processing
- Management and maintenance of the office and treatment areas
- Preparing the patient for treatment
- Preparing and sterilizing instruments and obtaining specimens for diagnostic evaluation
- Performing EKGs and administering medications under the direction of the physician

The program includes an internship at an area health care setting and provides the foundation needed for certification examinations.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Demonstrate effective workplace communications;
- Identify and maintain legal standards appropriate for the field
- Function as a health care advocate and patient educator as appropriate
- Perform appropriate operational functions of medical assisting
- Perform clinical skills and follow diagnostic procedures effectively
- Perform appropriate administrative and finance tasks effectively
- Possess the knowledge and skill to pass programmatic exit assessments and in-field nationally normed professional certifications

### PROGRAM ASSESSMENT

Course outcomes are assessed by exit exams in each course. Program outcomes are assessed in capstone courses (Clinical Skills II and Seminar and Leadership). Learner outcomes are assessed by the national certification examination for medical assisting. General education outcomes are assessed by general education portfolios.

### TRANSFER BACCALAUREATE OPTIONS

- Health Services Administration at WVU Tech
- Business Management at WVU Tech
- BA Pathway at WVU

**OTHER INFORMATION**

Students in this program will be required to submit background checks, drug screenings, and show record of specific vaccinations prior to participating in clinic requirements.

**CAREERS**

This program is designed for the individual who desires to provide allied health services in ambulatory out-patient facilities, including medical offices, clinics and hospitals. This program is designed to prepare competent individuals to participate in Diagnostic, Clinical and Administrative functions.

**MEDICAL ASSISTING**  
**ASSOCIATE APPLIED IN SCIENCE**

<b>First Semester</b>		
GNST 102	First Year Experience	1
ALHL 105	Medical Terminology	2
ALHL 115	First-Year Clinic	1
ATEC 115	Fund of Business Computer Apps	3
ATEC 120	Beginning Document Processing	3
ENGL 101	English Composition I (GEC 1)	3
MEDC 150	Medical Insurance & Billing Prac.	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ALHL 120	OSHA for Allied Health	1
ALHL 101	Phlebotomy & Lab	3
BUSN 122	Customer Service	1
MATH 111	Math for Health Care	3
MEDC 110	Medical Law and Ethics	1
BIOL 210	Human Anatomy and Physiology with Lab	4
	<b>Semester Total</b>	<b>13</b>
<b>Third Semester</b>		
ALHL 205	Clinical Skills Lab I	2
MEDC 200	Medical Coding	3
ATEC 210	Machine Transcription (Med)	3
ATEC 220	Records & Database Mgmt	3
ALHL 110	Pharmacology	3
MEDC 215	Human Pathophysiology	2
	<b>Semester Total</b>	<b>16</b>
<b>Fourth Semester</b>		
ALHL 210	Clinical Skills Lab II	2
ATEC 230	Office Procedures	3
ALHL 203	EKG/ECG Technician	4
ALHL 215	Seminar II	1
ALHL 225	Internship (160 hours)	1
BUSN 120	Interviewing	1
PSYC 201	Life-Span Development	3
	<b>Semester Total</b>	<b>15</b>

# Certificate in Applied Science

## MEDICAL CODING

### PROGRAM DESCRIPTION

This two-semester certificate program is designed to prepare students for employment as medical insurance specialists and/or medical coders in physician offices, hospital billing offices, outpatient departments, and insurance companies. This program will enable the student to develop expertise in diagnostic and procedure coding and medical office billing procedures. The program will be applying for AHIMA accreditation and will prepare the student to sit for the AHIMA Certified Coding Specialist (CCS®) Certification.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Apply diagnostic and procedure principles and guidelines
- Use medical office billing guidelines and procedures
- Utilize medical terminology as well as knowledge of human anatomy and physiology, basic pharmacology, and pathophysiology of the human body to assign medical codes
- Interpret medical records for completeness, accuracy, and compliance with regulations

### PROGRAM ASSESSMENT

The success of the Medical Coding program will be measured by the following criteria:

Course outcomes are assessed by exit exams in each course. Program outcomes are assessed in the directed practicum. Learner outcomes are assessed by the national certification examination. General education outcomes are assessed by a portfolio.

### CAREERS

Medical coding specialists are in demand. The US Bureau of Labor Statistics estimates a shortage of more than 50,000 qualified HIM and HIT workers by 2015. According to the US Department of Labor, job growth for medical records and health information technicians is expected to increase by 21% between 2010 and 2020, which is considered faster than average for all occupations. This increase is partly due to the aging of our population—Americans will be using more and more healthcare services in coming decades. New regulations that demand more accountability from healthcare providers are also creating jobs for qualified medical coding specialists.



**GAINFUL EMPLOYMENT INFORMATION**

The Medical Coding program prepares graduates for employment as:

29-2071.00\* - Medical Records and Health Information Technician, Coder, Health Information Specialist, Health Information Technician, Medical Records Analyst, Medical Records Clerk, Medical Records Coordinator, Medical Records Director, Medical Records Technician, Registered Health Information Technician

11-9111.00\* - Medical and Health Services Manager, Office Manager, Medical Records Manager, Practice Administrator

\*www.onetonline.org

**MEDICAL CODING****CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BIOL 220 or 210	Human Anatomy/ Human Anatomy Physiology	4
ENGL 101	English Composition I	3
MEDC 101	Medical Terminology	1
MEDC 150	Medical Insurance and Billing Practices	3
MEDC 201	Diagnostic Medical Coding*	3
MEDC 203	Procedural Medical Coding	3
	<b>Semester Total</b>	<b>17</b>
<b>Second Semester</b>		
ALHL 110	Pharmacology	3
BUSN 112	Business Mathematics	3
MEDC 205	CPT/HCPCS Medical Coding*	3
MEDC 240	Advanced Medical Coding*	3
MEDC 250	Directed Practicum (160 hrs)	1
	<b>Semester Total</b>	<b>13</b>

*\*Denotes courses that are offered only on the South Charleston campus.*

# ASSOCIATE IN APPLIED SCIENCE MEDICAL LABORATORY TECHNOLOGY

## PROGRAM DESCRIPTION

Medical laboratory Technicians (MLT's) performs a variety of complex biological and chemical analyses on patient specimens both manually and with sophisticated laboratory equipment. These analyses assist the physician in the prevention, diagnosis, treatment, and monitoring of disease.

## PROGRAM GOALS AND OBJECTIVES

Upon successful completion of this program, graduates will demonstrate competency in performing test methodologies and clinical laboratory tasks expected of an entry level MLT/CLT. Students will complete a 16-week rotation in all areas of the laboratory in a hospital setting, applying cognitive learning to hands-on situations.

## PROGRAM ASSESSMENT

This MLT program prepares the student to sit for a national certification exam, and upon successful completion of this exam, enables the MLT graduates to be licensed in the state of WV.

**TRANSFER BACCALAUREATE OPTIONS:** MLT's can go on to baccalaureate institutions to earn their bachelor's degree in medical technology and continue on to work as a medical technologist, usually as a laboratory supervisor.

## OTHER INFORMATION:

Refer to the Admission section for further information on program admission requirements.

## CAREERS:

Employment opportunities would include (but are not limited to) the following: hospitals, clinics, reference laboratories, public health laboratories, infection control, pharmaceutical companies, industry, businesses (particularly lab equipment companies).

**MEDICAL LABORATORY TECHNOLOGY****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BIOL 220	Human Anatomy	4
ENGL 101	English Composition I (GEC 1)	3
MATH 125	College Algebra Expanded (GEC 2) <b>OR</b>	
MATH 130	College Algebra (GEC 2)	3
CHEM 101	General Chemistry	3
CHEM 102	General Chemistry Lab	1
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
Elective	Social Science Elective (GEC3)	3
A TEC 115	Fundamentals of Business Computers	3
BIOL 221	Human Physiology	4
BIOL 230	Microbiology	3
BIOL 231	Microbiology Lab	1
	<b>Semester Total</b>	<b>14</b>
<b>Summer Semester</b>		
MLAB 100	Introduction to Laboratory Science and Phlebotomy (GEC4)	2
MLAB 204	Clinical Urinalysis and Body Fluids Lab	1
	<b>Semester Total</b>	<b>3</b>
<b>Third Semester</b>		
MLAB 200	Clinical Hematology (GEC4)	4
MLAB 201	Clinical Biochemistry (GEC4)	4
MLAB 202	Clinical Immunohematology (GEC4)	4
MLAB 203	Clinical Microbiology (GEC4)	4
	<b>Semester Total</b>	<b>16</b>
<b>Fourth Semester</b>		
MLAB 205	MLT Seminar	1
MLAB 206	MLT Clinical Practicum (GEC4)	12
	<b>Semester Total</b>	<b>13</b>

# ASSOCIATE IN APPLIED SCIENCE NUCLEAR MEDICINE TECHNOLOGY

## PROGRAM DESCRIPTION

The Nuclear Medicine Technology Program prepares the students for an entry-level position as a Nuclear Medicine Technologist as well as understanding the daily operations of a hospital, clinic, and Nuclear Pharmacy. This program is designed to provide specialized clinical and didactic training in Nuclear Medicine theory and practice with emphasis on Radiobiology and Radiation Protection, Nuclear Medicine Instrumentation, Radiation Physics for Medical Imaging, Radiopharmacy/Radiochemistry, and Nuclear Medicine Procedures.

## PROGRAM GOALS AND OBJECTIVES

Upon completion of the program, graduates will:

- Be prepared to obtain appropriate entry level employment in the field of Nuclear Medicine Technology.
- Have the necessary skills and knowledge for successful passage of the Nuclear Medicine Technology Certification Board Exam or the American Registry of Radiologic Technologists, Nuclear Medicine Exam.
- Be prepared to perform patient-care tasks, prepare and administer radiopharmaceuticals, conduct quality control procedures, perform imaging and non-imaging procedures, apply radiation physics and safety regulations to limit radiation exposure and be familiar with PET and PET/CT imaging.
- Effectively use human relationship skills to work in a diverse society.
- Effectively use their skills and knowledge learned in the clinical and didactic portion of the program to positively impact the patient, employer, and community.

## PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, employee surveys, employer surveys and program specific exit exams, which may include the Nuclear Medicine Technology Certified Board (NMTCB) and/or The American Registry of Radiologic Technologists in Nuclear Medicine (ARRT-N). The general education outcomes are assessed by a general education portfolio.

**CAREERS**

The Nuclear Medicine Program prepares graduates for employment in a wide range of clinical settings, such as community hospitals, university hospitals, outpatient diagnostic imaging centers, and research centers as an entry-level Nuclear Medicine Technologist working in a:

- PET/CT Department
- Radiopharmacy

**CAREER PATHS**

- Staff Technologists
- Departmental Supervisors
- Sales representatives
- Technical/Development Specialists
- Program Educators.

The Nuclear Medicine Technology program is a limited enrollment, selective admission program. Students must complete the first two semesters of general education requirements to be considered for acceptance into the program.

**NUCLEAR MEDICINE TECHNOLOGY  
ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I (GEC 1)	3
MATH 130	College Algebra (GEC 2)	3
BIOL 220	Human Anatomy and Lab	4
PHYS 100	Introductory Physics	3
HUMN 101	Intro to Humanities	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ENGL 202	Business and Professional Writing	3
CHEM 101	General Chemistry	3
CHEM 102	General Chemistry Lab	1
BIOL 221	Human Physiology	4
PSYC 201	Life Span Development	3
NUCM 200	Intro to Nuclear Medicine	3
	<b>Semester Total</b>	<b>17</b>
<b>Third Semester</b>		
NUCM 202	Nuclear Medicine Practicum	6
NUCM 203	Nuclear Medicine Procedures I	3
NUCM 204	Radiation Physics for Medical Imaging	3
NUCM 205	Radiobiology/Radiation Protection	2
	<b>Semester Total</b>	<b>14</b>
<b>Fourth Semester</b>		
NUCM 206	Nuclear Medicine Practicum	6
NUCM 207	Nuclear Medicine Procedures II	3
NUCM 208	Nuclear Medicine Instrumentation	3
NUCM 209	Radiopharmacy/Radiochemistry	2
	<b>Semester Total</b>	<b>14</b>
<b>Fifth Semester</b>		
NUCM 201	Nuclear Medicine Practicum	3
	<b>Semester Total</b>	<b>3</b>

Contact Information:  
Alicia Tucker, RBA, CNMT  
Program Director  
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# ASSOCIATE IN APPLIED SCIENCE NURSING

ACCREDITED BY THE WEST VIRGINIA BOARD OF EXAMINERS FOR REGISTERED PROFESSIONAL NURSES AND THE ACCREDITATION COMMISSION FOR EDUCATION IN NURSING, INC.

## PROGRAM DESCRIPTION

The Associate Degree Nursing program is a two-year program whose graduates meet the academic requirement to apply to take the NCLEX-RN licensing examination upon graduation. Other requirements for licensure are specified by the West Virginia Board of Examiners for Registered Professional Nurses. A combination of general education, related cognates and courses from the professional major provide students with the opportunity to acquire the knowledge and skills needed to practice in a variety of direct client care settings as well as providing the educational foundation for further study in nursing.

## PROGRAM GOALS AND OBJECTIVES

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient's individual needs and values.
2. Generate safe and effective patient-centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the healthcare environment.
4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and Code of Ethics.
5. Evaluate the utilization of healthcare system resources to efficiently and effectively manage care.
6. Integrate current best practices to plan and implement safe and effective patient care.

## PROGRAM ASSESMENT

Program evaluation demonstrates that students and graduates have achieved the student learning outcomes, program outcomes, and role-specific competencies. To ensure accreditation standards are met, the program has a Systematic Plan of Program Evaluation in place that is shared with communities of interest. Specifically, the SPPE evaluates performance on the licensure (NCLEX) exam, program completion, graduate program satisfaction, employer program satisfaction, and job placement rates.

## TRANSFER BACCALAUREATE OPTIONS

- Marshall University RN-BSN
- Fairmont State University RN-BSN
- Bluefield State
- West Virginia University
- West Virginia University of Parkersburg
- University of Charleston

**OTHER INFORMATION**

A separate application is required for admission to the program. Information regarding the application process can be found on BVCTC's website at [www.bridgevalley.edu](http://www.bridgevalley.edu). Students must meet eligibility requirements including drug screening, background check, and technical standards.

All science courses (BIOL 220, BIOL 221, BIOL 230 or BIOL 245) must be taken within five years of admission. Once admitted into the nursing program, students have three academic years for completion.

**CAREERS**

Demand for Registered Nurses continues to dramatically increase both locally and nationally. Nurses are one of the most important components of the American health care system, playing an essential role in health care delivery in diverse settings in hospitals, out-patient and long-term care facilities, homes and workplaces, pharmaceutical and insurance companies.



**NURSING****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
PSYC 101	Introduction to Psychology	3
BIOL 220	Human Anatomy and Lab	4
NURS 132	Drug and Dosage Calculations I	1
NURS 133	Health Assessment and Diagnostics I	2
NURS 134	Introduction to Nursing Concepts	8
<b>Semester Total</b>		<b>18</b>
<b>Second Semester</b>		
BIOL 221	Human Physiology and Lab	4
NURS 142	Drug and Dosage Calculations II	1
NURS 143	Health Assessment and Diagnostics II	1
NURS 144	Nursing Concepts of Health and Illness I	9
<b>Semester Total</b>		<b>15</b>
<b>Third Semester</b>		
ENGL 101	English Composition I (GEC 1)	3
NURS 234	Nursing Concepts of Health and Illness II	9
BIOL 230, 245	Microbiology OR Nutrition & Diet Therapy	3
<b>Semester Total</b>		<b>15</b>
<b>Fourth Semester</b>		
NURS 244	Synthesis of Nursing Concepts	9
NURS 245	Professional Nursing and Health Systems Concepts	3
<b>Semester Total</b>		<b>12</b>

**CONTACT INFORMATION:**

Mr. B. Kent Wilson, MSN, RN, CLNC, Program Chair  
[Kent.Wilson@bridgevalley.edu](mailto:Kent.Wilson@bridgevalley.edu) –Office 110H- 304.205.6689

# ASSOCIATE IN APPLIED SCIENCE

## Occupational Development: Child Development Specialist

### PROGRAM DESCRIPTION

The A.A.S. in Occupational Development degree results from a partnership involving BridgeValley Community and Technical College, the U.S. Department of Labor Bureau of Apprenticeship and Training, companies, and labor unions.

Apprentices who seek the A.A.S. in Occupational Development earn college credits from annual classroom training and on-the-job training that are required in their apprenticeship program. The remainder of credit hours is obtained through enrollment at BVCTC.

### PROGRAM LEARNING OUTCOMES

- Prepare graduates to obtain suitable employment in their area of specialization
- Prepare graduates to adapt to emerging and rapid changes in science and technology and to be able to engage in lifelong learning

\*See BVCTC's general education requirements.

### OCCUPATIONAL DEVELOPMENT RESIDENCY REQUIREMENT

A BVCTC student enrolled in the A.A.S. in Occupational Development must complete a minimum of three credit hours at BVCTC. The remaining 12 credit hours of the 15 credit hour residency requirement may be completed at BVCTC or any public higher education institution in the West Virginia System.

### CURRICULUM

60 Credit Hours required for graduation.

### COMPONENT I

Component I consists of general education courses. Students must take six credits of communication skills courses, at least three credits of college-level math, six credits of specific general education electives and eighteen credits of Early Childhood Education coursework, for a total of 34 credit hours.

Based on placement test scores, it is possible that some apprentices might have to take developmental courses in English and Mathematics.

**COMPONENT II**

Component II consist of Classroom Training, more than 1,000 clock hours of instruction, typically during a 3-5 year period. The college awards up to 14 credit hours for ACDS Classroom Training in the apprenticeship program.

**COMPONENT III**

Component III consists of several years of on-the-job training. Typically, apprentices receive more than 4,000 clock hours of on-the-job training, for which the college wards up to 10 credit hours.

## Contact Information:

Tonia Padrick, Education Studies Chair

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Office: 032B- South Charleston Campus

## OCCUPATIONAL DEVELOPMENT: CHILD DEVELOPMENT SPECIALIST

## ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
ENG 101	English Composition I	3
MATH 113	Mathematical Reasoning	3
PYSC 201	Lifespan Development	3
A TEC 115	Fundamentals of Business Computer Technologies	3
COMM 100	Oral Communication	3
EDUC 290	Language & Literacy for Young Children	3
	<b>Semester Total</b>	<b>18</b>
<b>Second Semester</b>		
EDUC 115	Infant Toddler Development	3
EDUC 225	Early Childhood Development	3
EDUC 260	Special Needs in Early Childhood	3
EDUC 291	Early Childhood Curriculum & Methods	3
EDUC 292	Observing and Assessing Young Children	3
	<b>Semester Total</b>	<b>15</b>

# Associate in Applied Science

## PARALEGAL STUDIES

### PROGRAM DESCRIPTION

The expanding role of the paralegal in the delivery of legal services has created increased opportunities with private law firms, corporate legal departments, insurance companies, real estate and title firms, banks, and government agencies. Graduates are prepared for careers in business, industry or non-profit corporations that interface with the legal system.

Paralegals organize and manage work flow in law office settings, draft legal documents, research and draft legal memoranda, and file documents with the appropriate court. They conduct background checks, interview clients, and pursue factual investigations for employers. Paralegals may prepare witnesses for depositions, develop materials for trial, organize client files, and assist with title searches. Paralegals may serve as employer liaisons to business, the police, other attorneys, government officials and the courts. Paralegals cannot accept a case, set fees, give legal advice or represent a client in court.

### PROGRAM GOALS AND OBJECTIVES

Through participating in this program, students will learn:

- 1) How to conduct legal research
- 2) How to prepare legal documents
- 3) How to apply critical thinking skills to legal issues
- 4) How to communicate clearly and effectively
- 5) Information about various substantive areas of the law

### PROGRAM ASSESSMENT

Students take the Paralegal Core Competency Exam (PCCE) prior to graduating. The PCCE serves as one assessment tool for the Paralegal Studies program and also allows students, upon successful passage, to become Registered Paralegals through the National Federation of Paralegal Associations. Other methods of assessment include exams, homework assignments, surveys, class presentations, and various assigned projects.

### TRANSFER BACCALAUREATE OPTIONS

Once a student completes all of the requirements for a Paralegal Studies degree, he/she may transfer into the University of Charleston's Bachelor's Degree in Political Science program through a 2+2 agreement that the Paralegal Studies program has with the University of Charleston's Political Science department.

**OTHER INFORMATION**

The Paralegal Studies program

- has a challenging curriculum
- requires that students possess or develop excellent written and oral communication skills, analytical ability, and a high level of motivation
- utilizes Westlaw
- utilizes PACER
- incorporates the expectations of employers into a curriculum that teaches practical job-related paralegal skills in conjunction with underlying theory
- provides an internship opportunity
- allows students to become Registered Paralegals upon their successful completion of the PCCE Exam
- features faculty who are professionals in the field

The program does not have admission requirements that differ from BridgeValley's admission requirements.

**CAREERS**

- Paralegal for Private Sector Attorneys
- Paralegal for Public Sector Attorneys
- Paralegal for a Court system
- Arbitrator
- Bar Association Administrative Assistant
- Billing Professional
- Conflicts Analyst or Specialist
- Contracts Administrator
- Court Clerk
- Court Interpreter (with additional training in the applicable language)
- Designer Designer / Developer of Trial Visual Aids
- Editor for a legal or business publisher
- Equal Employment Opportunity Specialist
- Evidence technician
- Grant Writer
- Insurance Claims Adjuster and Investigator
- Investigator
- Judicial Assistant
- Jury Consultant
- Law Librarian
- Legal analyst
- Legal Compliance and Enforcement Inspector
- Legal computer software representative
- Legislative Analyst
- Loan Closing Coordinator
- Loan Interviewer and Clerk
- Mediator
- Mortgage Processor
- Municipal Clerk
- Occupational Health and Safety Specialist and Technician
- Parole Officer
- Patent Database Administrator
- Probation Officer
- Property Manager
- Technical Writer
- Title Examiner, abstractor, and researcher
- Title Insurance Administrative Assistant
- Trial Court coordinator
- Victim or Witness Advocate for Domestic Violence office, County Prosecuting Attorney's Office, or US Attorney's Office

**PARALEGAL STUDIES**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BUSN 201	Business Law	3
PRLS 100	Introduction to the Paralegal Profession	2
PRLS 101	Civil Litigation 1	3
A TEC 115	Fundamentals of Business Computer Apps	3
ENGL 101	English Composition I	3
GNST 102	First Year Experience	1
	<b>Semester Total</b>	<b>15</b>
<b>Second Semester</b>		
PRLS 200	Civil Law I	3
PRLS 201	Evidence and Litigation	3
PRLS 202	Property Law	3
PRLS 203	Criminal Litigation	4
ENGL 102	English Composition II	3
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
PRLS 204	Civil Litigation II	3
PRLS 205	Legal Research and Writing I	3
MATH 113	Mathematical Reasoning	3
COMM 100	Oral Communications	3
BIOL 101	General Biology <b>OR</b>	
MTGY 100	Weather and Climate <b>OR</b>	
CHEM 100	Consumer Chemistry	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
PRLS 206	Legal Research and Writing II	3
PRLS 296	PCCE Review Course	1
PRLS 297	Paralegal Studies Internship	2
PRLS 298	Paralegal Studies Seminar	1
ACCT 185	Survey of Accounting	3
ECON 202	Principles of Macroeconomics	3
ENGL 107	English Grammar Review	1
	<b>Semester Total</b>	<b>14</b>

*\* Denotes courses offered only on the South Charleston campus.*

## Certificate in Applied Science

### PARAPROFESSIONAL EDUCATOR CERTIFICATE

The Paraprofessional Education Certificate of Applied Science fulfills all of the requirements for a Paraprofessional Certificate as outlined but the West Virginia State Board of Education.

The Paraprofessional Certificate entitles the holder to serve in a support capacity including, but not limited to, facilitating instruction and director or indirect supervision of pupils under the direction of the educator. The Paraprofessional Certificate is approximately one-half of the curriculums required for an associate degree in this area.

#### PARAPROFESSIONAL EDUCATOR CERTIFICATE

##### CERTIFICATE IN APPLIED SCIENCE

<b>First Semester</b>		
ENG 101	English Composition I	3
MATH 130 OR BUSN 112	College Algebra OR Business Mathematics	3
HUMN 101 OR ENGL 215	Introduction to Humanities OR Introduction to Literature	3
A TEC 115	Fundamentals of Business Computer Technologies	3
EDUC 260	Special Needs in Early Childhood	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
COMM 100	Oral Communication	3
PSYC 101 OR PSYC 210	General Psychology/ Life Span Development	3
HIST 101 OR HIST 102	US History to 1865/US History 1865 to Contemporary Times	3
ARTS 120 OR ARTS 110	Art Appreciation/ Music Appreciation	3
EDUC 226	Field Experiences in Classroom Management	3
<b>Semester Total</b>		<b>15</b>

*Please Note: The WV Board Of Education Also Requires Verification Of Student's Reading Ability And May Accept Professional Experience In Place Of Coursework, But Bridgevalley Requires All Of The Above Courses In Order To Grant The Certificate Degree.*



# Certificate in Applied science

## PRE-ENGINEERING

### PROGRAM DESCRIPTION

The Pre-Engineering Certificate program will prepare graduates to be successful in applying to an engineering degree program at another institution. Program is designed for students who are interested in pursuing a four-year degree in engineering but are not academically prepared to directly enter the program or would like to complete general education course needed for engineering disciplines.

### PROGRAM GOALS AND OBJECTIVES

The Pre-Engineering Certificate program has an educational objective to prepare students to meet admission requirements and to successfully complete an engineering degree program at an institution of their choice.

### PROGRAM ASSESSMENT

Upon completion of this certificate program graduates will:

- be able to communicate articulately in speech, writing, and visual presentation
- be able to use standard methods of mathematical analysis including algebra and trigonometry in solving problems
- be able to use general concepts, theories, and principles of sciences in practical applications
- be able to use computer technology to organize, access, and communicate information
- be able to use mathematical, problem-solving, and college success skills in future engineering courses
- be prepared to continue a baccalaureate degree in engineering or a related technical program

### TRANSFER BACCALAUREATE OPTIONS

Upon completing Pre-Engineering Certificate program at BVCTC students will be able to transfer to baccalaureate programs in several engineering fields, including chemical, civil, computer, electrical, industrial, and mechanical.

### CAREERS

This program will also prepare a student who chooses not to enroll in an engineering or technical program to enter the workforce in engineering or Architecture Company, a company providing technical services or a manufacturing operations company in an entry level trainee position. The certificate will provide the basic skills needed by employers. The Pre-Engineering Certificate curriculum includes technical elective courses such as computer science, programming, computer aided drafting and design, microcontrollers, programmable logic controllers, global positioning system, and geographic information system. Technical elective courses together with the general education core courses prepare students for employment in various technical fields as well as for continuation of their education in engineering.

**PRE-ENGINEERING**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
GNST 102	First Year Experience	1
ENGL 101	English Composition I (GEC-1)	3
MATH 130	College Algebra (GEC-2)	3
DRFT 120	Drafting I	2
CSCT 104	Technical Applications of Spreadsheets and Databases	3
	Social Science Elective	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
ENGL 102	English Composition II OR	
ENGL 104	Technical Writing	3
MATH 140	Trigonometry (GEC-2)	3
CSCT 103	Critical and Creative Thinking	3
	Natural Science Electives	6
<b>Semester Total</b>		<b>15</b>

**ELECTIVES-Natural Science** (select two courses) PHYS-100, PHYS-101, MTGY-100, CHEM-101, CHEM-102, CSCT-101, CSCT-266, CSCT-219 **OR** GNET-161, GNET-162, DRFT-289, CIET-114, CIET-115, DRFT-121, DRFT-201, DRFT-202, ECET-110, ECET-115

**ELECTIVES-Social Science** (select one courses) HUMN-101 (or ARTS 110, ARTS 120), COMM-100, HIST-101, HIST-102, ECON-201, ECON-202, PSYC-101, SOCI-101

# Associate in Applied science

## PROCESS INSTRUMENTATION TECHNOLOGY

### PROGRAM DESCRIPTION

Process Instrumentation Technology program will develop skills for the installation, maintenance, calibration and troubleshooting of systems used to measure and control the flow, level, temperature and pressure in automated industrial processes. Courses combine technical theory, use of state of the art equipment, and hands-on experience necessary to work in industrial instrumentation fields across the state, and throughout the country, including chemical operations, upstream and downstream oil and gas, natural gas compressor stations, petrochemical, power generation, and waste water treatment plants.

### PROGRAM GOALS AND OBJECTIVES

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

- Work safely in an automated manufacturing and process environment, including the proper use of personal protective equipment (PPE)
- Install, maintain, calibrate and effectively troubleshoot instrumentation devices
- Read and understand Piping and Instrumentation Diagrams, associated drawings and documentation
- Understand fundamental principles and methods of measuring flow, level, pressure and temperature
- Identify, maintain and troubleshoot electrical and mechanical systems used in a process control loop, such as valves, pumps, sensors, variable frequency drives, motor circuits, and controllers
- Install, repair and replace tubing in a process environment
- Gain hands-on experience installing, configuring, programming and troubleshooting programmable logic controllers (PLCs) and Human Machine Interface (HMI) Displays
- Gain hands-on experience installing, configuring and troubleshooting instrumentation devices using industrial communications such as HART, DeviceNet, ProfiBus, Foundation Fieldbus, EtherNet/IP and wireless communication
- Gain hands-on experience installing, configuring, repairing and troubleshooting control valves and positioners
- Understand the components and function of a Distributed Control System (DCS)
- Troubleshoot and tune PID control loops
- Gain hands-on experience troubleshooting process control loops in an integrated, real world environment on the Process Training Unit (PTU)
- Complete the International Society of Automation (ISA) Control System Technician (CST) Associate Recognition Program; the ISA CST Associate examination measures a fundamental understanding of knowledge in automation and control

**PROGRAM ASSESSMENT**

Students will complete the International Society of Automation (ISA) Control System Technician (CST) Associate Recognition Program; the ISA CST Associate examination measures a fundamental understanding of knowledge in automation and control. This will be required in the Capstone course.

**CAREERS**

This program prepares completers for entry-level positions as instrumentation techs, Electrical & Instrument Techs, Process Techs, electronics/instrumentation techs, instrument and control techs, and maintenance techs. Instrumentation technicians find employment in most industries and earn a large starting salary. Technicians may be employed locally, regionally or nationally in chemical, power generation, waste water plants, and the oil and gas industry. Typical salary range for an entry-level position can be up to \$30 per hour.

**PROCESS INSTRUMENTATION TECHNOLOGY**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
PTEC 202	Safety, Health, and Environment	3
GNST 102	First Year Experience	1
AMTE 110	DC and AC Circuits	3
MATH 135	Technical Algebra I (GEC 2)	3
ENGL 101	English Composition I (GEC 1)	3
PWPT 202	Instrumentation & Control	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
INST 112	Instrumentation Devices and Calibration	3
PWPT 107	Electrical Controls	3
AMTE 133	Industrial Wiring and NEC	2
AMTE 134	Industrial Power and Devices	3
AMTE 144	PLC Fundamentals and Applications	3
	<b>Semester Total</b>	<b>14</b>
<b>Third Semester</b>		
AMTE 245	Advanced PLCs (GEC 4)	3
INST 218	Final Control Elements	3
PTEC 203	Process Technology I: Equipment	4
INST 211	Advanced Instrumentation	3
AMTM 113	Industrial Mechanics	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
INST 213	Process Control Loop Troubleshooting (GEC 4) (Capstone)	3
INST 214	Distributed Control Systems and Networks	2
	Technical Electives	6
BUSN 230	Business Communications & Ethics (GEC 3)	3
	<b>Semester Total</b>	<b>14</b>

# Associate in Applied Science

## Certificate in Applied Science

### APPLIED PROCESS TECHNOLOGY

#### PROGRAM DESCRIPTION

Applied Process Technology prepares students to be employed as operators in the process industry.

#### PROGRAM GOALS AND OBJECTIVES

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

- Prepare measure and feed raw material and processing agents into plant equipment.
- Draw samples of products for lab analysis.
- Use standard test equipment, materials and procedures to perform chemical tests.
- Monitor gauges, signals and recording instruments;
- Turn valves and move controls to regulate temperatures, pressures, levels and flows through a process system to affect prescribed response within critical limits
- Demonstrate knowledge of equipment and process operations.
- Maintain log of gauge readings and shift production information.

#### PROGRAM ASSESSMENT

A comprehensive exam is given in the PTEC Capstone course

#### OTHER INFORMATION

A chemical process operator works in the safe production, refining and transfer of various chemicals in three states of matter - solid, liquid and gas. Production is carried out in reactors and converters. Refining is done in distillation columns, filter presses, separators and other types of equipment. Chemicals are transferred through pipelines to shipping containers or storage tanks. In operating equipment, the operator must observe, interpret and record data from gauges, instruments, computer displays, log books and laboratory analysis data. The operator will need to make changes in pressure, flow, temperature, level and other parameters by operating control devices including valves, switches and levers. Operators may also be required to operate moving equipment such as aerial work platforms, forklifts and track mobiles. Minor maintenance activities requiring the use of hand tools is done frequently by operators. The operators must be able to solve simple math problems and be able to run lab tests to assure quality products are being made. An operator must have good written and verbal communication skills. Being able to recognize unusual conditions and troubleshoot problems are essential traits for a chemical process operator.

#### CAREERS

Most graduates enter the chemical processing industry. However, many industries will accept a two-year Technology degree as the minimum qualifications.

## APPLIED PROCESS TECHNOLOGY

## ASSOCIATE IN APPLIED SCIENCE

<b>First Semester</b>		
PTEC 101	Intro to Process Technology	4
PTEC 202	Safety, Health, and Environment	3
PTEC 103	Process Technology I (Equipment)	4
GNST 102	First Year Experience	1
GNST 103	Classroom Success Strategies	1
GNST 104	Professional Development	1
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
PTEC 206	Quality	3
PWPT 202	Instrumentation & Control	3
MATH 115	Applied Technical Math	3
PTEC 203	Process Technology II (Systems)	3
PTEC 205	Process Technology III (Operations) <b>OR</b>	
PTEC 207	Internship	4
	<b>Semester Total</b>	<b>16</b>
<b>Third Semester</b>		
AMTM 113	Industrial Mechanics	3
CHEM 101	General Chemistry	3
ENGL 101	English Composition I	3
COMM 100	Oral Communications <b>OR</b>	3
HUMN 101	Introduction to Humanities	
CSCT 104	Technical Applications Of Microsoft Office	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
ENGL 120	Technical Writing <b>OR</b>	
ATEC 240	Business Communication and Ethics	3
PHYS 100	Introductory Physics	3
Elective	Social Science Elective	3
PTEC 201	Water and Wastewater Treatment	3
PTEC 250	PTEC Capstone	3
	<b>Semester Total</b>	<b>15</b>

## CHEMICAL OPERATIONS

## CERTIFICATE

<b>First Semester</b>		
ENGL 101	English composition I	3
PTEC 101	Intro to Process Technology	4
PTEC 103	Process Technology I (Equipment)	4
PTEC 202	Safety, Health, & Environment	3
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
MATH 115	Applied Technical Math	3
PTEC 203	Process Technology (Systems)	3
PTEC 205	Process Technology II (Operations)	4
PTEC 206	Quality	3
PWPT 202	Instrumentation and Control	3
	<b>Semester Total</b>	<b>16</b>



# Associate in Science

## RESPIRATORY THERAPY

### PROGRAM DESCRIPTION

The respiratory therapy program is a cooperative program between BridgeValley Community and Technical College and Carver Career and Technical Education Center in Malden, West Virginia.

Respiratory therapy is a selective admission, limited enrollment program which admits one class per year. Successful candidates are selected by an admissions committee. Students wishing to enter this program must complete an application packet available on the BridgeValley website by February 28 of each year. The admissions committee will consider applications during two selection periods. The application deadline for priority selections is February 28 of each year. If seats are still available in the program following priority application reviews, secondary applications will be considered. The application deadline to be considered for the secondary selection period will be April 30 of each year.

Financial aid for this program is awarded through Carver Career and Technical Center only. An on-site financial aid counselor is available at the Carver facility.

### PROGRAM GOALS AND OBJECTIVES

Completion of the program leads to an associate of science degree in Respiratory Therapy and eligibility for the Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT) examinations.

### PROGRAM ASSESMENT

The program is nationally accredited by the Committee on Accreditation for Respiratory Care (COARC).

### TRANSFER BACCALAUREATE OPTIONS

- Health Services administration BS
- Regents BA
- BA Pathways

**OTHER INFORMATION**

Admission requirements include the following:

- Graduation with a high school diploma with a 2.0 GPA OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
- ACT composite score of 20 (or SAT composite of 950) or better. ACT scores: English 18, math 19, reading 17 OR SAT scores: English 450, math 460, reading 420 OR Accuplacer scores of: English 88, arithmetic math 85, reading 79
- One high school or college chemistry course with a “C” or better. The chemistry course does not require a laboratory component. If the student has high school courses only another high school science laboratory course with a “C” or better is required for admission.
- A one-page, handwritten essay detailing reason for wanting to be a Respiratory Therapist
- Two letters of reference

**Or**

- Students whose ACT/SAT scores do not meet the above outlined criteria may be considered for admission to the Respiratory Therapy program by successfully completing:
- Graduation with a high school diploma with a 2.0 GPA OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
- Twelve hours of college work at an accredited institution of higher learning within the past five years with a minimum overall GPA of 2.0. (Collegiate courses cannot include developmental courses.)
- If math or English scores are below acceptable levels, students must pass the appropriate math course with a grade of C or higher, as well as developmental English and/or reading prior to admission.
- One high school or college chemistry course with a “C” or better. The chemistry course does not require a laboratory component. If the student has high school courses only another high school science laboratory course with a “C” or better is required for admission.
- A one-page, handwritten essay detailing reason for wanting to be a Respiratory Therapist
- Two letters of reference

**CAREERS**

Respiratory Therapist in hospitals, asthma and allergy clinics, sleep disorders centers, skilled nursing facilities, asthma education, doctors’ offices, various clinics and research settings.

## RESPIRATORY THERAPY

## ASSOCIATE IN SCIENCE

<b>First Semester</b>		
BIOL 210	Human Anatomy & Physiology	4
ENGL 101	English Composition I (GEC 1)	3
MATH 111	Math for Health Care	3
RESP 101	Clinical Rotation I	0
RESP 107	CP Pharmacology	3
RESP 111	Respiratory Skills I	4
<b>Semester Total</b>		<b>17</b>
<b>Second Semester</b>		
A TEC 115	Fund Business Comp Appl	3
BIOL 230	Microbiology	3
BIOL 231	Microbiology Lab (wet)	1
ENGL 202	Business and Professional Writing	3
RESP 102	Clinical Rotation II	0
RESP 112	Respiratory Skills II	3
RESP 115	Pathology	3
<b>Semester Total</b>		<b>16</b>
<b>Summer Semester</b>		
RESP 103	Clinical Rotation III	0
RESP 220	Mechanical Ventilation	3
<b>Semester Total</b>		<b>3</b>
<b>Summer Semester</b>		
RESP 105	Patient Assessment	4
<b>Semester Total</b>		<b>4</b>
<b>Third Semester</b>		
PSYC 201	Life Span Development	3
RESP 201	Clinical Rotation IV	0
RESP 205	Neonates/Pediatrics	3
RESP 210	Cardiopulmonary Diagnostics I	3
RESP 221	Mechanical Ventilation II	4
<b>Semester Total</b>		<b>13</b>
<b>Fourth Semester</b>		
BUSN 120	IPR: Interviewing Strategies	1
RESP 202	Clinical Rotation V	0
RESP 207	Alternate Health Care	2
RESP 209	Clinical Simulations	2
RESP 211	Cardiopulmonary Diagnostics II	3
RESP 215	Review Seminar	2
RESP 217	Professional Issues	2
SOCI 130	Diversity in the Workplace	1
<b>Semester Total</b>		<b>13</b>

*\*Please note: To be counted toward graduation, all RESP, BIOL and MATH courses require a minimum grade of C.*

# Certificate in Science

## SALES

### PROGRAM DESCRIPTION

The Certificate in Applied Science in Sales can be used in a number of ways. A salesperson with no formal training could complete the certificate and expect sales skills and income to increase. Any major who wants to help people (meet needs) and be well paid should consider the Certificate in Applied Science in Sales.

The 30 credit hours for the degree were selected to improve the understanding of sales with respect to public relations, advertising and integrated marketing communications. Specific approaches, closes, trail closes and presentation methods are explained with the opportunity to apply them during the sales role-plays.

### PROGRAM GOALS AND OBJECTIVES

Demonstrate an understanding and proficiency with the Marketing Mix (the Four Ps) and its importance to the organization

Make a sales presentation using the ten step sales process.

Be able to develop an integrated advertising campaign using sound advertising principles.

Developed a social media strategy for a brand or company that was appropriately integrated with overall marketing strategy (i.e. segmentation, targeting, positioning, marketing mix)

### PROGRAM ASSESSMENT

Program outcomes are assessed by capstone courses, exit interview, employer surveys and program specific exit exams. General education outcomes are assessed by a general education portfolio.

### CAREERS

The Sales Certificate program prepares graduates for employment as:

\*Sales representatives

- Sales
- Sales Consultant
- Sales Agent
- Outside Sales
- Account Executive
- Sales Representative
- Sales Director

\*[www.onetonline.org](http://www.onetonline.org)

**GAINFUL EMPLOYMENT INFORMATION**

The Bureau of Labor Statistics Occupational Outlook Handbook reports that the annual median salary (May 2012) for Advertising Sales Agents is \$46,290 and a -1% job outlook growth rate, 2012-20. Experience, education and certification all increase earning potential. If students go on to further their education, Sales Engineers have a reported median salary of \$91,830 as of May 2012 and a 9% growth rate, 2012-2020.

**SALARY INFORMATION**

<http://www.bls.gov/ooh/sales/home.htm>

Tuition and Fees\*: \$4520 In-State Resident-\$11420 Non-Resident-Books\*: \$1300-CB Certification Exam: \$395-Graduation Rate: N/A-Job Placement Rate: 72% (college average)-Median Loan Debt: N/A

\*Actual costs may vary.

**SALES****CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I	3
MRKT 173	Professional Selling*	3
ATEC 115	Fundamentals Business Computer Apps	3
MGMT 151	Supervisory Management	3
MRKT 205	Fundamentals of Marketing	3
<b>Semester Total</b>		<b>15</b>
<b>Second Semester</b>		
MRKT 175	Marketing Communications	3
BUSN 112	Business Mathematics	3
BUSN 230	Business Communications and Ethics	3
MGMT 238	Retail Management	3
MRKT 220	Social Media Marketing*	3
<b>Semester Total</b>		<b>15</b>

\*Denotes courses offered only at the South Charleston campus.

# Certificate in Applied Science

## SIMULATION, GAMING AND APPS DEVELOPMENT

### PROGRAM DESCRIPTION

The Simulation, Gaming, and Apps Development (SGD) certificate program is designed to provide quality technical education to prepare digital graphic technicians for the simulation, gaming, and applications development industry. The student will receive training in the basic skills required of the industry and, upon completion of the one-year certificate, should be able to continue into the two-year Digital Design and Print Communications program.

### PROGRAM GOALS AND OBJECTIVES

Upon completion of the one-year certificate program, the student will be able to:

- design and create basic simulations, gaming, and small applications for hand-held media
- utilize appropriate software for image creation and SGD development
- apply design and development processes used in SGD and graphic communications

Program outcomes are assessed by exit course examinations and performance on laboratory projects.

### JOB TITLES

Typical job titles include SGD developer.

### ONE-PLUS-ONE ASSOCIATE OPTION

Digital Design & Print Communications, AS

**SIMULATION, GAMING AND APPS DEVELOPMENT**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>First Semester</b>		
DSGN 113	Intro to Graphic Design	1
DSGN 114	Text and Type	1
DSGN 118	Adobe Photoshop	3
GAME 111	Intro to SGD	3
GAME 113	Introduction to Adobe Flash	3
GAME 116	Introduction to Audio/Video Production	3
	<b>Semester Total</b>	<b>14</b>
<b>Second Semester</b>		
MATH 110	Applied Technical Math (GEC 2)	3
DSGN 134	Adobe Illustrator	3
SCSCT 130	Introduction to Web Design	3
ENGL 101	English Composition I	3
GAME 123	Advanced Adobe Flash	3
GAME 126	Advanced Audio & Video Production	3
	<b>Semester Total</b>	<b>18</b>

## Associate in Applied Science TECHNICAL STUDIES

### PROGRAM DESCRIPTION

A program of study developed under this degree designation leads to an A.A.S. Degree in Technical Studies. This program of study will include general education, general technical education, and specific occupational training. On-the-job training is an optional component that may be included. Portions of this type of education and training are currently offered on a no-college credit basis via quality industry-based educational and training programs.

### PROGRAM GOALS AND OBJECTIVES

This degree program is designed to provide a vehicle to assist the community and technical colleges in responding to the needs of employers in a timely manner. Those educational needs that are one time or short term are the primary focus for this program.

### PROGRAM ASSESSMENT

No specific assessment is made; however, technical courses may be required to successfully complete industry certifications.

### TRANSFER BACCALAUREATE OPTIONS

Possible transfer to Board of Regents or Bachelor of Technology.

### CAREERS

Business, industry, labor, and government organizations interested in furthering the education and training of their employees/members constitute the target audience of this degree program. By providing a program of study designed to enhance and maintain employee knowledge and skills, it is expected that such individuals will maintain employee knowledge and skills. It is expected that such individuals will enjoy greater job security and job flexibility while providing employers with a more highly skilled and educated workforce. For those just entering the job market, the program of study will include the education and training needed to assure basic entry level skills for the specific technical/occupational field. Such programs will typically be offered only if the need for new employees or the need for expanded education and of current employees is needed by the employers served by the sponsoring community and technical college.



**GAINFUL EMPLOYMENT INFORMATION**

Graduates may find employment as:

49-9052 Telecommunications Line Installers and Repairers

[www.onetonline.org/link/summary/49-9052.00](http://www.onetonline.org/link/summary/49-9052.00)

15-1041 Computer Support Specialists

[www.onetonline.org/link/summary/15-1041.00](http://www.onetonline.org/link/summary/15-1041.00)

49-9042 Maintenance and Repair Workers, General

[www.onetonline.org/link/summary/49-9042.00](http://www.onetonline.org/link/summary/49-9042.00)

51-9011 Chemical Equipment Operators and Tenders

[www.onetonline.org/link/summary/51-9011.00](http://www.onetonline.org/link/summary/51-9011.00)

51-2022 Electrical and Electronic Equipment Assemblers

[www.onetonline.org/link/summary/51-2022.00](http://www.onetonline.org/link/summary/51-2022.00)

**Note: Program credit awarded for occupational training is subject to review and approval by the division dean and the Vice President of Academic and Student Affairs at the end of the program assessment paragraph.**

**TECHNICAL STUDIES**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>Component I-General Education</b>	<b>Credit Hours</b>
Communication Skills (At least one business or technical writing or business course) Minimum Credit Hours	6
Quantitative Skills/Laboratory Science/Experience (At least one mathematics course) Minimum Credit Hours	6
General Education Elective/ To satisfy minimum	3
<b>Component Total</b>	<b>15</b>
<b>Component II – Technical Core</b>	<b>Credit Hours</b>
Each program of study must include a general technical core that meets the goal of developing skills that may be applied to a variety of occupations or that may be specific to an occupation. Technical courses such as the examples listed below are to be a part of every program of study under this degree designation.	
Labor Management Relations, Laboratory Science, Safety and Industrial Hygiene, Fluid Power, Principles of Management, Graphics, Principles of Supervision, Electrical Systems, Methods of Inquiry, Human Relations, Computer Applications, Industrial Psychology, Draft/CAD/Blueprint Reading, Nutrition, Accounting Principles, Information Processing, Advanced Mathematics, Industrial Relations, Human Resource Management, TQM Principles, Qualitative Business Analysis, Statistics, Quality Control Principles, Medical Terminology	
<b>Component Total</b>	<b>39</b>
<b>Component III – Supervised Worksite Based Learning or OJT Training</b>	<b>Credit Hours</b>
The component consists of technical specialty courses specific to an occupational area. Technical courses developed and delivered by the college, apprenticeship courses, or approved courses included in a business or industry training program can be included in this component. Apprenticeship and industry based education and training program courses are to be converted to college credit hours at the usual ratio of 15:1 for lecture and at a rate consistent with BVCTC's lab hour/credit hour ratio for lab credit.	
<b>Component Total</b>	<b>39</b>
<b>Component IV: On-the-Job Training in the Occupation or Supervised Work Based Learning</b>	<b>Credit Hours</b>
Credit for worksite-based training is optional in the certificate in technical studies program. When incorporated, such training consists of an internship, practicum, or OJT experience performed in an occupational setting related to the certificate. The credit value of internships will be determined by the process and contact to credit hour ratio used in traditional programs. On-the-job training experience will be converted at a ratio of 160:1 contact hour per credit hour, with a maximum of 960 contact hours allowable. This credit may be recorded immediately prior to graduation from college.	3
<b>Component Total</b>	<b>12</b>

## Certificate in Applied Science

### TECHNICAL STUDIES

#### PROGRAM DESCRIPTION

The Certificate of Applied Science in Technical Studies addresses the identified educational and training needs of business, industry, labor and governmental agencies through the delivery of customized programs in a timely and efficient manner.

#### PROGRAM GOALS AND OBJECTIVES

The program is designed to allow BVCTC to package courses in a manner that will address short-term educational and training needs of employers.

#### PROGRAM ASSESSMENT

No specific assessment is made; however, technical courses may be required to successfully complete industry certifications.

#### TRANSFER BACCALAUREATE OPTIONS

Possible transfer to Board of Regents or Bachelor of Technology.

#### CAREERS

Individuals currently employed in business and industry are the primary focus of this program. By providing a program of study designed to enhance and maintain employee knowledge and skills, it is expected that such individuals will enjoy greater job security and flexibility. For those preparing to enter the job market, the program of study will include the education and training needed to assure basic entry-level skills for the specific occupational/technical field. Such programs will typically be offered only if the need for new employees or the need for expanded education and training of current employees is demonstrated by the local businesses and industries BVCTC serves.

#### GAINFUL EMPLOYMENT INFORMATION

Graduates may find employment as:

49-9052 Telecommunications Line Installers and Repairers

[www.onetonline.org/link/summary/49-9052.00](http://www.onetonline.org/link/summary/49-9052.00)

15-1041 Computer Support Specialists

[www.onetonline.org/link/summary/15-1041.00](http://www.onetonline.org/link/summary/15-1041.00)

49-9042 Maintenance and Repair Workers, General

[www.onetonline.org/link/summary/49-9042.00](http://www.onetonline.org/link/summary/49-9042.00)

51-9011 Chemical Equipment Operators and Tenders

[www.onetonline.org/link/summary/51-9011.00](http://www.onetonline.org/link/summary/51-9011.00)

51-2022 Electrical and Electronic Equipment Assemblers

[www.onetonline.org/link/summary/51-2022.00](http://www.onetonline.org/link/summary/51-2022.00)

Tuition and Fees: \$4050 In-State Resident,  
\$10950 Non-Resident

Books: \$1100

Graduation Rate: N/A

Job Placement Rate: 72% (college average)

Median Loan Debt: \$0

**TECHNICAL STUDIES**  
**CERTIFICATE IN APPLIED SCIENCE**

<b>Component I-General Education</b>	<b>Credit Hours</b>
Communication Skills Appropriate to the Occupational Area	3
Quantitative Skills	3
Optional Additional General Education or Technical Courses which directly support the Technical Knowledge/Skills Taught in the Program	0-5
<b>Component Total</b>	<b>6 to 11</b>
<b>Component II – Technical / Occupational Specialty</b>	<b>Credit Hours</b>
This component consists of technical specialty courses specific to an occupational area. Technical courses developed by the college, approved courses included in a business, industry, labor or agency-based education/training program, or combinations of credit courses and/or non-credit training modules evaluated for credit equivalency by an identified college body can be included in this component. Externally based education and training programs which are equivalent to college level classroom/lab courses are to be converted to college credit hours at no less ratio than 15:1 contact to credit hours for lecture, and at a rate consistent the lab contact hour/credit hour ratio of KVCTC for laboratory credit. Credit equivalencies for noncredit training modules will be converted at no less ratio than 30:1 contact to credit hours. Credit for externally based education and training will be awarded upon completion of the college work required in Component I.	3
<b>Component Total</b>	<b>24</b>
<b>Component III – Supervised Worksite Based Learning or OJT Training</b>	<b>Credit Hours</b>
Credit for worksite-based training is optional in the certificate in technical studies program. When incorporated, such training consists of an internship, practicum, or OJT experience performed in an occupational setting related to the certificate. The credit value of internships will be determined by the process and contact to credit hour ratio used in traditional programs. On-the-job training experience will be converted at a ratio of 160:1 contact hour per credit hour, with a maximum of 960 contact hours allowable. This credit may be recorded immediately prior to graduation from college.	3
<b>Component Total</b>	<b>6</b>

**Note: Program credit awarded for occupational training is subject to review and approval by the division dead and the Vice President of Academic and Student Affairs at the end of the program assessment paragraph.**

# Associate in Applied Science VETERINARY TECHNOLOGY

## PROGRAM DESCRIPTION

The Veterinary Technology program is a cooperative program between BridgeValley Community and Technical College and Carver Career and Technical Education Center in Malden, West Virginia. The program is national credited by the American Veterinary Medical Association. Completion of this program leads to an associate of applied science in Veterinary Technology from BridgeValley CTC.

## PROGRAM GOALS AND OBJECTIVES

Graduates of this program who have successfully passed both the national and state exams earn their license and become Registered Veterinary Technicians within the state of WV.

## PROGRAM ASSESSMENT

Graduates of this program are eligible to take the Veterinary Technicians National Exams and the WV state exam for veterinary technicians.

## TRANSFER BACCALAUREATE OPTIONS

BA – Regents BA

BS – Veterinary Technology (out of state)

## OTHER INFORMATION

The Veterinary Technology program is a selective admission, limited enrollment program which admits one class per year. Successful candidates are selected by an admissions committee. Students wishing to enter this program must complete an application packet available on the BridgeValley website. The admissions committee will consider applications during two selection periods. The application deadline for priority selections is February 28th of each year. If seats are still available in the program following priority application reviews, secondary applications will be considered. The application deadline to be considered for the secondary selection period will be April 30th of each year.

Financial aid for the Veterinary Technology program is awarded through Carver Career and Technical Center only. An on-site financial aid counselor is available at the Carver facility.

**ADMISSION REQUIREMENTS**

Admission requirements include the following:

1. Graduation with a high school diploma with a 2.0 GPA OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
2. ACT composite score of 20 (or SAT composite of 950) or better. ACT scores: English 18, math 19, reading 17 OR SAT scores: English 450, math 460, reading 420 OR Accuplacer scores of: English 88, arithmetic math 85, reading 79
3. One high school or college chemistry course with a “C” or better. The chemistry course does not require a laboratory component. If the student has high school courses only another high school science laboratory course with a “C” or better is required for admission.
4. A minimum of 20 hours of paid or volunteer veterinary experience verified by a supervisor.
5. A one-page, typed essay entitled “Why I want to be a Veterinary Technician.”

**OR**

Students whose ACT/SAT scores do not meet the above outlined criteria may be considered for admission to the Veterinary Technology program by successfully completing:

1. Graduation with a high school diploma with a 2.0 GPA OR GED scores of 410 on each sub-test with an average of 450 OR TASC scores of 500 on each test subject area with the additional requirement to score at least 2 out of 8 on the Writing prompt.
2. Twelve hours of college work at an accredited institution of higher learning within the past five years with a minimum overall GPA of 2.0. (Collegiate courses cannot include developmental courses.)
3. Must be eligible for MATH 111 and English 101. If math or English scores are below acceptable levels, students must pass the appropriate math course with a grade of C or higher, as well as developmental English and/or reading prior to admission.
4. One high school or college chemistry course with a “C” or better. The chemistry course does not require a laboratory component. If the student has high school courses only another high school science laboratory course with a “C” or better is required for admission.
5. A minimum of 20 hours of paid or volunteer veterinary experience verified by a supervisor.
6. A one-page, typed essay entitled “Why I want to be a Veterinary Technician.”

Submission of a completed physical examination form is required prior to the start of laboratory classes. Students will also submit a background check and a random drug screen after they are enrolled in the program.

Applications are to be sent to:

Veterinary Technology Program  
C/o Carver Career and Technical Center  
4799 Midland Trail  
Charleston, WV 25306

## CAREERS

Employment of veterinary technologists and technicians is projected to grow 30 percent from 2012 to 2022, much faster than the average for all occupations. Employment will grow as more veterinarians utilize technicians and technologists to do general care and lab work, and as they continue to replace lower skilled veterinary assistants.

Median pay is \$30,290 per year or \$14.56 per hour.

Bureau of Labor Statistics, U.S. Department of Labor,  
Occupational Outlook Handbook, 2014-15 Edition,  
Veterinary Technologists and Technicians,

<http://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm>

Veterinary Technician find employment in veterinarian offices, zoos, animal research, biomedical research, food inspection, wildlife management, pharmaceutical sales, government agencies, US Army, humane societies, and many additional areas. Typical job titles include Certified Veterinary Technician (CVT), Emergency Veterinary Technician, Internal Medicine Veterinary Technician, Licensed Veterinary Technician (LVT), Registered Veterinary Technician (RVT), Veterinary Assistant, Veterinary Laboratory Technician (Veterinary Lab Tech), Veterinary Nurse, Veterinary Technician (Vet Tech)

<http://www.onetonline.org/>

**Standard Occupational Classification (SOC) 29-2056.00 - Veterinary Technologists and Technicians**

**VETERINARY TECHNOLOGY****ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
BIOL 215	Animal Anatomy & Physiology	4
MATH 111	Math for Health Care	3
VETT 101	Intro to Veterinary Technology	3
VETT 102	Parasitology	3
VETT 103	Animal Science	3
VETT 105	Veterinary Medical Terminology	2
	<b>Semester Total</b>	<b>18</b>
<b>Second Semester</b>		
BIOL 230	Microbiology	3
BIOL 231	Microbiology Lab (wet)	1
ENGL 101	English Composition I (GEC-1)	3
VETT 111	Surgical Techniques & Nursing	5
VETT 112	Veterinary Pharmacology I	2
VETT 113	Companion Animal Diseases I	2
	<b>Semester Total</b>	<b>16</b>
<b>Summer Semester</b>		
VETT 219	Seminar I	1
VETT 221	Preceptorship	1
	<b>Semester Total</b>	<b>2</b>
<b>Third Semester</b>		
ENGL 202	Business & Professional Writing	3
VETT 201	Veterinary Pathology	4
VETT 202	Large Animal Health & Diseases	3
VETT 203	Laboratory Animal & Avian Medicine	3
VETT 212	Veterinary Pharmacology II	2
VETT 213	Companion Animal Diseases II	2
	<b>Semester Total</b>	<b>17</b>
<b>Fourth Semester</b>		
A TEC 115	Computer Applications	3
SOCI 101	Introduction to Sociology	3
VETT 222	Preceptorship II	2
VETT 223	Veterinary Capstone	4
	<b>Semester Total</b>	<b>12</b>

*Please note: To be counted toward graduation, all VETT and BIOL courses require a minimum grade of C.*



# Associate in Applied Science

## WELDING TECHNOLOGY

### PROGRAM DESCRIPTION

The associate of applied science degree in Welding Technology is a two year program that prepares graduates to enter the field of welding. A graduate with this degree should have a strong foundation in welding and be able to advance to the upper pay level grades at a much higher pace than those untrained. The program prepares the graduate in the selection of the right equipment; selection of filler metals; pre, intermediate and post heat treatment of welded metals; and proper weld techniques. The program stresses industry-wide safety procedures and trains the student to read weld symbols and detail drawings. The student is presented with a general knowledge of many fields in welding thus allowing them to choose an area(s) to specialize in if they desire to do so. Lastly, the Welding Technology program provides the student with a solid foundation which will enable them to enter into areas of the construction, engineering, manufacturing, heavy equipment repair, and plant maintenance and/or weld engineering if they should decide to continue their education.

### PROGRAM ASSESSMENT

Program outcomes are assessed by a variety of means, including quizzes, unit tests, oral presentations, written reports, and final examinations. Outcomes based on technical expertise are assessed by the Society of Manufacturing Engineers EET Outcomes Assessment exit exam, which assesses student knowledge in a variety of areas of the electrical engineering technology field. General education outcomes are assessed by the ACT WorkKeys exit examination.

### ADVANCED PLACEMENT CREDIT FOR HIGH SCHOOL/VOCATIONAL-TECHNICAL CENTER/COLLEGE PROGRAMS

High school level welding coursework is not necessary for entrance into the Welding Technology program. Introductory subjects are incorporated as part of the program. Students, who have completed vocational or EDGE courses, may receive credit for advanced placement. Articulation/EDGE agreements are in place with various vocation-technical centers. Advanced placement is also available for students with prior college experience or credentials. Please contact the department chair.

### CAREERS IN ADVANCED WELDING TECHNOLOGY

Welders may work in a variety of industries, including construction and manufacturing. Because the bond is so strong, welding is used in many industrial applications from airframes to bridges.

In May 2012, the Bureau of Labor Statistics (BLS) reported that welders received an average annual salary of \$38,410. Those employed in the electric power generation, distribution and transmission industry earned the highest salaries, receiving \$62,850 annually on average. The top 10% of welders took home at least \$56,000 per year in 2012. Additional opportunities exist in the weld inspection industry for properly qualified individuals.

**WELDING TECHNOLOGY**  
**ASSOCIATE IN APPLIED SCIENCE**

<b>First Semester</b>		
ENGL 101	English Composition I (GEC 1)	3
GNST 102	First Year Experience	1
MATH 115	Applied Technical Math (GEC 2)	3
MEET 121	Manufacturing Processes I	3
WLDT 111	Basic Oxyfuel Plasma And Carbon Arc Cutting and Gouging	3
WLDT 121	Basic SMAW	3
	<b>Semester Total</b>	<b>16</b>
<b>Second Semester</b>		
ALHL 100	CPR/AED/First Aid	0.5
DRFT 120	Drafting 1	2
GNET 108	Computer Applications for Technicians	3
GNET 124	40-Hour Surface Mining Apprentice Class	2
WLDT 122	Intermediate SMAW	3
WLDT 131	Basic GMAW	3
	<b>Semester Total</b>	<b>13.5</b>
<b>Third Semester</b>		
ENGL 202	Bus & Professional Writing (GEC 1)	3
WLDT 151	Basic FCAW	3
WLDT 161	Weld Symbols & Detail Drawings	3
WLDT 223	Advanced SMAW	3
WLDT 265	Metallurgy	3
	<b>Semester Total</b>	<b>15</b>
<b>Fourth Semester</b>		
BUSN 120	Interpersonal Relations: Interviewing Strategies	1
WLDT 141	Basic GTAW	3
WLDT 225	CODE SMAW	3
WLDT 227	ST: CODE AP1 1104 Pipe	3
WLDT 235	CODE GMAW	3
	Technical Elective	3
	<b>Semester Total</b>	<b>16</b>

*Technical Electives: DESL Any DESL course, DRFT Any DRFT course, ECET Any ECET course, MEET Any MEET Course, WLDT Any WLDT Course, WLDT 293 Internship*

*Program Electives must be approved by your academic advisor and can be chosen from the list below.*



# Skill Sets

## Skill Sets

<b>American Sign Language Skill Sets</b>		
<b>Basic Skill Set</b>		
ASLI 101	Fingerspelling I	1
ASLI111	American Sign Language	3
ASLI 121	Educational Interpreting as a Career	1
ASLI 122	Deaf Culture & History	3
	<b>Total</b>	<b>8</b>
<b>Communicator Skill Set</b>		
ASLI 102	Fingerspelling II	1
ASLI 112	American Sign Language I	3
ASLI 200	Voicing I	3
ASLI 123	Cochlear Implants	1
	<b>Total</b>	<b>8</b>
<b>Advanced Communicator Skill Set</b>		
ASLI 103	Fingerspelling III	1
ASLI113	American Sign Language III	3
ASLI 201	Voicing II	3
ASLI 124	Educational Interpreting Principles	3
	<b>Total</b>	<b>10</b>
<b>Specialist Skill Set</b>		
ASLI 104	Educational Fingerspelling I	1
ASLI 114	American Sign Language IV	3
ASLI 202	Voicing III	3
ASLI 221	English Interpreting	3
	<b>Total</b>	<b>10</b>

<b>Blasting Fundamentals</b>		
BLST 100	Basic Blasting	2
GNET 122	Industrial Safety/OSHA 30	3
	<b>Total</b>	<b>5</b>

<b>Basic Blasting &amp; Apprentice Miner Skill Set</b>		
BLST 100	Basic Blasting	2
GNET 125	40 Hour Surface Apprentice Miner	2
	<b>Total</b>	<b>4</b>

<b>Blackjack Dealing Skill Set</b>		
GAMN 101	Introduction to Table Games	2
GAMN 102	Introduction to Carnival Games	1
GAMN 119	Blackjack Dealing	3
<b>Total</b>		<b>6</b>

<b>Certified Bookkeeper Skill Set</b>		
ACCT 291	Certified Bookkeeper Preparation and Accounting Review	6
<b>Total</b>		<b>6</b>

<b>Diesel Engine Repair Basic Skill Set</b>		
DESL 112	Theory & Operation	2
DESL 113	Disassembly, Inspection & Reassembly	2
DESL 114	Valvetrain & Operation	2
DESL 115	Diesel Engine Accessories	2
DESL 130	Into to Hydraulics (GEC-4)	4
<b>Total</b>		<b>12</b>

<b>Diesel Engine Repair Advanced Skill Set</b>		
DESL 112	Theory & Operation	2
DESL 113	Disassembly, Inspection & Reassembly	2
DESL 114	Valvetrain & Operation	2
DESL 115	Diesel Engine Accessories	2
DESL 121	Fundamentals of Electricity	1
DESL 122	Electrical Production, Storage, & Usage	1
DESL 123	Chassis Electrical Systems	1
DESL 130	Into to Hydraulics (GEC-4)	4
DESL 231	Manual Transmissions	1
DESL 232	Automatic Tran	2
DESL 233	Differentials and Drive Axles	2
DESL 241	Hydraulic Brakes	2
DESL 242	Air Brakes	2
DESL 251	System Preventative Maintenance	1
DESL 260	Mobile Air Conditioning System	1
DESL 270	Advanced Electronic Engine Controls	1
<b>Total</b>		<b>27</b>

<b>Early Childhood Education Skill Set</b>		
EDUC 101	Healthy Environments for Children	3
EDUC 115	Infant Toddler	3
EDUC 120	Foundations of Early Childhood Education	3
EDUC 220	Integrating Technology in the Classroom	3
	<b>Total</b>	<b>12</b>

<b>Early Childhood Pre-K Advanced Skill Set</b>		
EDUC 110	Family Relationships	3
EDUC 225	Early Childhood Development	3
EDUC 260	Special Needs in Early Childhood	3
EDUC 290	Language and Literacy	3
EDUC 291	Pre-K Curriculum & Methods	3
EDUC 292	Assessing Young Children	3
	<b>Total</b>	<b>18</b>

<b>Entrepreneurship Advanced Skill Set</b>		
MGMT 155	Introduction to Entrepreneurship	3
MGMT 160	Funding Your Venture	1
MGMT 170	Opportunity Analysis	2
MGMT 255	Small Business Management	3
MRKT 173	Professional Selling	3
	<b>Total</b>	<b>12</b>

<b>Executive Office Advanced Skill Set</b>		
A TEC 220	Records & Database Management	2
A TEC 120	Beginning Document Processing	3
BUSN 106	Introduction to Business	3
BUSN 122	Business Communication & Ethics	3
MGMT 151	Supervisory Management	3
	<b>Total</b>	<b>14</b>

<b>Gerontology Skill Set</b>		
GERO 102	Health Aspects of Aging	3
GERO 206	Death and Dying	3
GERO 209	Psychosocial Aspects of Aging	3
	<b>Total</b>	<b>9</b>

<b>Healthcare Team Leader Advanced Skill Set</b>		
HMGMT 105	Foundations of Healthcare Management	3
MGMT 151	Supervisory Management	3
MRKT 205	Fundamentals of Marketing	3
BUSN 201	Business Law	3
	<b>Total</b>	<b>12</b>

<b>Home Performance Skill Set</b>		
SBLT 104	BPI Building Analyst	3
SBLT 112	BPI Envelope Professional	2
SBLT 102	BPI Installer	3
SBLT 113	Home Energy Modeling	1
	<b>Total</b>	<b>9</b>

<b>LEED Skill Set</b>		
SBLT 120	Introduction to Building Assessment (LEED Green Assoc.)	1
SBLT 130	Commercial Building Assessment (LEED AP BD+C)	2
SBLT 140	Residential Building Assessment (LEED AP Homes)	2
	<b>Total</b>	<b>5</b>

<b>Legal Office Advanced Skill Set</b>		
ATEC 220	Records & Database Management	2
ATEC 120	Beginning Document Processing	3
BUSN 122	Customer Service	1
BUSN 230	Business Communications & Ethics	3
PRLS 100	Introduction to Paralegal Profession	3
MGMT 151	Supervisory Management	3
	<b>Total</b>	<b>14</b>

<b>Medical Administrative/Electronic Health Records Skill Set</b>		
ATEC 130	Medical Administrative/Electronic Health Records Specialist	6
	<b>Total</b>	<b>6</b>

<b>Medical Billing &amp; Coding Skill Set</b>		
MEDC 101	Medical Terminology	1
MEDC 110	Medical Law & Ethics	1
MEDC 150	Medical Insurance & Billing Practices	3
ALHL 200	Medical Coding	3
	<b>Total</b>	<b>8</b>

<b>Medical Office Advanced Skill Set</b>		
ATEC 220	Records & Database Management	2
ATEC 120	Beginning Document Processing	3
BUSN 122	Customer Service	1
BUSN 230	Business Communications & Ethics	3
MEDC 101	Medical Terminology	1
MGMT 151	Supervisory Management	3
	<b>Total</b>	<b>13</b>

<b>Microsoft Office Access Skill Set</b>		
ATEC 250	MOS: Access Certification	1
	<b>Total</b>	<b>1</b>

<b>Microsoft Office Excel Skill Set</b>		
ATEC 255	MOS: Excel Certification	1
	<b>Total</b>	<b>1</b>

<b>Microsoft Office PowerPoint Skill Set</b>		
ATEC 260	MOS: PowerPoint Certification	1
	<b>Total</b>	<b>1</b>

<b>Microsoft Office Word Skill Set</b>		
ATEC 265	MOS: Word Certification	1
	<b>Total</b>	<b>1</b>

<b>Microsoft Office Suite Skill Set</b>		
ATEC 250	MOS: Access Certification	1
ATEC 255	MOS: Excel Certification	1
ATEC 260	MOS: PowerPoint Certification	1
ATEC 265	MOS: Word Certification	1
	<b>Total</b>	<b>4</b>

<b>Mining Basic Skill Set</b>		
GNET 122	Industrial Safety	3
GNET 125	40 Hour Surface Apprentice Class	2
GNET 126	80 Hour Underground Apprentice Class	4
ALHL 100	CPR/AED/First Aid	0.5
	<b>Total</b>	<b>9.5</b>



<b>Pharmacy Technician Skill Set</b>		
ALHL 109	Pharmacy Technician	3
<b>Total</b>		<b>3</b>

<b>Poker Dealing Skill Set</b>		
GAMN 124	Poker Dealing	3
<b>Total</b>		<b>3</b>

<b>Process Technology Skill Set</b>		
PTEC 101	Introduction to Process Technology	4
PTEC 202	Safety, Health & Environment	3
PTEC 206	Quality	3
<b>Total</b>		<b>10</b>

<b>Records Clerk Skill Set</b>		
ATEC 220	Records & Database Management	2
BUSN 122	IPR: Interviewing Strategies	1
BUSN 230	Business Communications & Ethics	3
<b>Total</b>		<b>6</b>

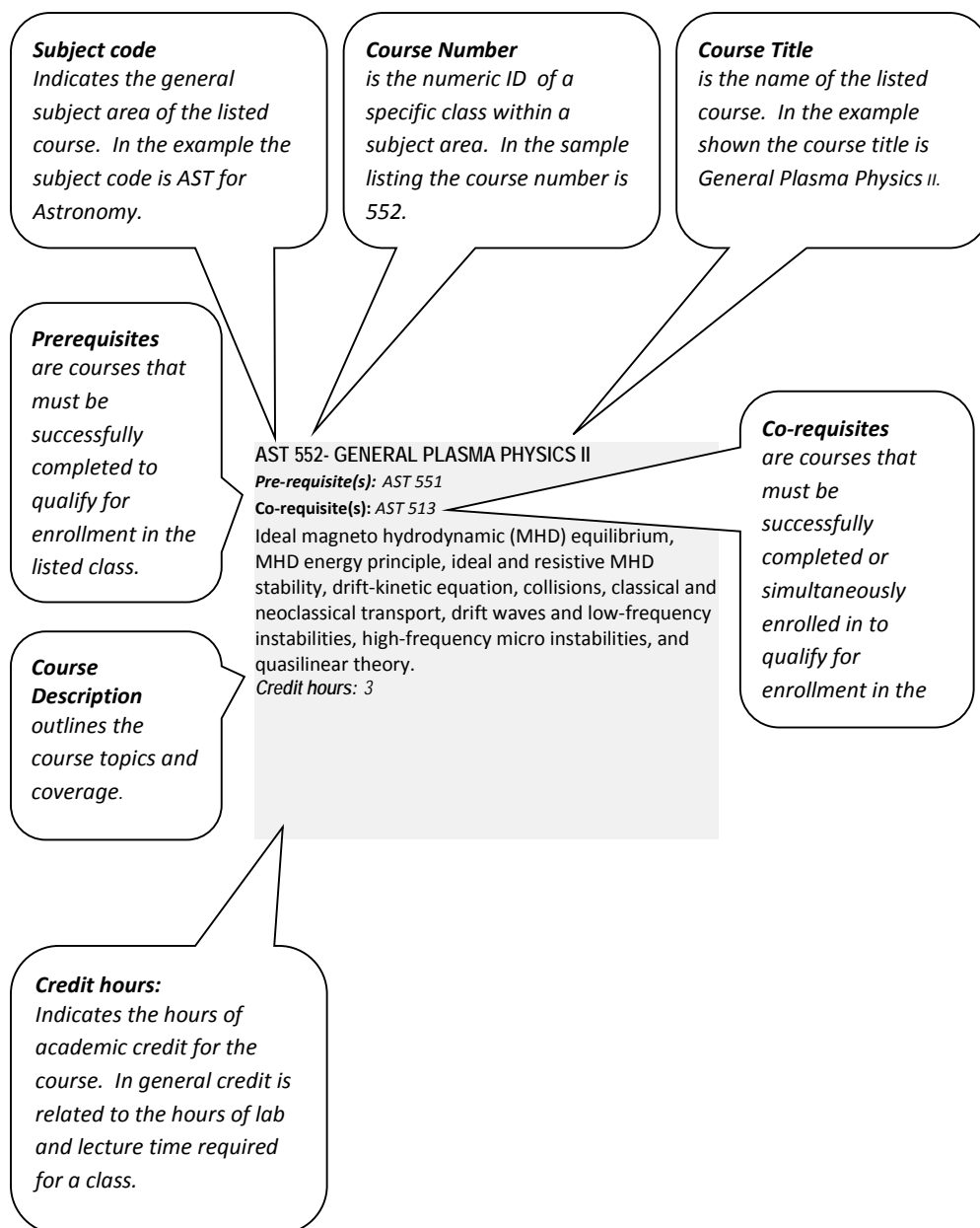
<b>TSA Skill Set</b>		
CRJU 141	Intro to Homeland Security	3
CRJU 142	Intelligence Analysis & Security Management	3
CRJU 142	Transportation and Border Security	3
<b>Total</b>		<b>9</b>

<b>Welding Skill Set</b>		
WLDT 101	Introduction to Welding Processes I	3
WLDT 102	Introduction to Welding Processes II	3
<b>Total</b>		<b>6</b>

# Course Descriptions

## COURSE DESCRIPTION LEGEND

The figure below illustrates how to interpret the catalog descriptions provided in the following section.



### ACCT

#### Accounting

##### ACCT-185 SURVEY OF ACCOUNTING

**Pre-requisites:** *Eligible for BUSN 112 or MATH 110*

A one semester accounting course to provide an overview of the basic topics in financial accounting. Topics include: the mechanics of accounting, accounts receivable and payable, inventories, depreciation, fixed and intangible assets, accrual and cash basis of accounting. This course is designed for students without prior accounting knowledge.

**Credit Hours: 3**

##### ACCT-199 SPECIAL TOPICS

Special topics course relating to Accounting.

**Credit Hours: 1-3**

##### ACCT-215 FINANCIAL ACCOUNTING

**Pre-requisites:** *Grade C or better in MATH 130 or BUSN 112*

The course provides students with an understanding of the nature and purpose of accounting and its function in business. The principles and concepts underlying the accounting cycle, transaction analysis and recording; financial statement preparation, disclosures and analysis; and ethical issues are addressed. The course includes units on inventories, internal control, cash, receivables, fixed and intangible assets, current and long-term liabilities, and stockholders' equity, preparation of financial statements, income tax and investments.

**Credit Hours: 3**

##### ACCT-216 MANAGERIAL ACCOUNTING

**Pre-requisites:** *Grade C or better in ACCT 215 (Financial Accounting)*

The analysis of internal accounting practices with emphasis on use of data for performance evaluation, control, cost analysis, capital budgeting, cash flows, and the contribution approach to decision making.

**Credit Hours: 3**

##### ACCT-235 INTEGRATED COMPUTER ACCOUNTING

**Pre-requisites:** *Grade C or better in ACCT 215 (Financial Accounting)*

This course is the study of the processing of accounting data through the use of integrated accounting systems. This course of study will involve the operation of the General Ledger, Accounts Receivable, Accounts Payable, Invoicing, Financial Statement Analysis and Payroll Accounting Systems, which are the major systems commonly found in computerized accounting environments.

**Credit Hours: 3**

##### ACCT-285 INTERMEDIATE ACCOUNTING I

**Pre-requisites:** *Grade of C or better in ACCT 216 (Managerial Accounting)*

This course is a continued study of the accounting process and the reporting process in conjunction with the development of accounting theory. The course includes the conceptual framework for generally accepted accounting; the accounting cycle; financial statement preparation and limitations' present value of money applications; current assets including cash, receivables, and inventories; plant assets, depreciation, impairments and depletion. **Credit Hours: 3**

### ACCT-286 COST ACCOUNTING

**Pre-requisites:** *Grade of C or better in ACCT 216 (Managerial Accounting)*

This course is the study of cost and managerial procedures and concepts designed to develop students who have a functional knowledge of the basic managerial accounting principles. The course introduces the basics of cost accounting which apply to service, merchandising, and manufacturing firms. Concepts covered include job order costing, cost-volume-profit analysis, activity-based costing, variable costing, budgeting, standard costing systems and variance analysis, decision-making using managerial accounting information, and related topics in addition to analytical and communication skills.

**Credit Hours: 3**

### ACCT-287 GOVERNMENTAL ACCOUNTING

**Pre-requisites:** *Grade of C or better in ACCT 216 (Managerial Accounting)*

Accounting practices used in governmental units and not-for profits organizations. Includes basic characteristics of fund accounting, functions of governmental accounting, budgetary process, basic fund accounting system, financial reporting objectives, and government-wide financial statements.

**Credit Hours: 3**

### ACCT-290 INDIVIDUAL INCOME TAX

**Pre-requisites:** *Grade of C or better in ACCT 216 (Managerial Accounting)*

This course emphasizes the income taxation of individuals as prescribed in the internal revenue code, related regulations, rulings and case law. Topics include sources of tax law, basic tax principles, introduction to U.S. federal, state and local tax systems, income and expense definitions, property transactions, developing research skills, ethical considerations, calculations of taxable income, and tax planning.

**Credit Hours: 3**

### ACCT-291 CERTIFIED BOOKKEEPER PREPARATION AND ACCOUNTING REVIEW

**Pre-requisites:** *Grade of C or better in ACCT 216 (Managerial Accounting)*

This course offers students a review of accounting knowledge, bookkeeping subject matter, and prepare to sit for the Certified Bookkeepers (CB) designation with the American Institute of Professional Bookkeepers (AIPB). This capstone course focuses on the seven primary subject areas: Accounting Review, Adjusting Entries, Correction of Accounting Errors, Payroll, Depreciation, Inventory and Internal Controls.

**Credit Hours: 6**

### ACCT-299 SPECIAL TOPICS

Special topics course relating to Accounting.

**Credit Hours: 1-3**

### ALHL

#### Allied Health

##### ALHL-100 CPR/AED/FIRST AID

This course is designed to prepare the student for CPR/AED and First Aid certifications. Curriculum will consist of instruction on how and when to use an automated external defibrillator for victims of cardiac arrest, proper techniques of administering CPR to adults, and the appropriate response to sudden illnesses and injuries.

**Credit Hours: 0.5**

##### ALHL-101 PHLEBOTOMY AND LAB

**Pre-requisites:** *ALHL 105, ENGL 101 eligible*

A combination of lecture, lab, and hands-on practical experience. Coursework includes selecting and preparing the skin puncture site, tube selection, collecting specimens (order of the draw), adhering to proper health and safety guidelines, patient-technician relationship, and clerical duties associated with proper record keeping. Under direction of a preceptor, students master venipuncture (100 sticks), capillary sticks (25), and other procedures while on clinical rotation at an approved facility (120 hours) Emphasis will be placed on the successful completion of the national certification exam after the course.

**Credit Hours: 3**

##### ALHL-102 INTRODUCTION TO HEALTH CARE

This interdisciplinary course introduces students to the medical care system with emphasis on medical specialties, allied health fields, and medical terminology. Major units of the course include the history and evolution of medicine, clinical experiences, the patient's concerns, medical trends, economics, and the legal and professional aspects of medical care. The course will utilize a programmed text for medical terminology. The course is designed specifically for students enrolled in an allied health discipline but may be taken by others interested in the health professions.

**Credit Hours: 3**

##### ALHL-105 MEDICAL TERMINOLOGY

This course is intended for allied health students. An introduction to essential components of building a medical vocabulary. Anatomic roots for words denoting body structure, disease process, prefixes, suffixes; Greek and Latin verbal and adjectival derivatives.

**Credit Hours: 2**

##### ALHL-110 PHARMACOLOGY

**Pre-requisites:** *ALHL 105*

A non-laboratory course intended for allied health majors. Concentration is placed on types and classification of drugs, their modes of action at the cellular, systemic, and organismal level, their contraindications and possible long-term effects; covers the science of drugs including their origin, nature, properties, composition, uses, and effects. Legal and ethical issues, proper documentation, indications, and side effects are discussed; administration of medication as allowed by law.

**Credit Hours: 3**

##### ALHL-115 FIRST-YEAR CLINIC

This course is intended for medical assisting students. Students will work in an area health care facility under the supervision of preceptor. Emphasis on work ethic.

**Credit Hours: 1**

## Course Descriptions

### ALHL-103 DIRECT PATIENT CARE

This course is designed to provide students interested in becoming a Certified Nursing Assistant with entry level skills most commonly associated with this entry level career title. The students are required to meet professional guidelines as designated by applicable regulatory agencies. Students meeting all academic and attendance requirements will meet the requirements to sit for the West Virginia Office of Health Facility Licensure & Certification Registry Examination for nursing assistants.

**Credit Hours: 3**

### ALHL-120 OSHA FOR ALLIED HEALTH

This course is intended for allied health majors. Concentration is placed on the principles of OSHA, hazard identification, evaluation of personal habits and changing them to meet safety guidelines. Coursework includes HazCom Standard, Blood borne Pathogen Standard, bio hazardous waste management, general safety, and guidelines for preventing violence in the workplace.

**Credit Hours: 1**

### ALHL-130 LEGAL CONCEPTS IN HEALTH CARE

This course is intended for allied health students. An introduction to legal guidelines and requirements for allied health professionals; topics include health care laws, scope of practice, risk management, informed consent, documentation, and malpractice.

**Credit Hours: 2**

### ALHL-140 SEMINAR I

**Pre-requisites:** ALHL 110

This course is intended for students who are graduating with a one-year certificate in phlebotomy. Covers the selection of clinical rotation placements and weekly reports. Topics include programmatic and college exit assessments and career preparation; business meeting format, agendas, and meeting minutes. Presentations and portfolio are required.

**Credit Hours: 1**

### ALHL-199/299 SPECIAL TOPICS IN ALLIED HEALTH

**Pre-requisites:** *Consent of Instructor*

Independent study of topic(s) pertinent to the profession of medical assisting or the allied health field.

**Credit Hours: 1-3**

### ALHL-199/299 SPECIAL TOPICS IN ALLIED HEALTH

**Pre-requisites:** *Consent of Instructor*

Independent study of topic(s) pertinent to the profession of medical assisting or the allied health field.

**Credit Hours: 1-3**

### ALHL-203 EKG/ECG TECHNICIAN

Course prepares students as credentialed Elettrocardiograph (EKG/ECG) Technicians. Through lecture and practical labs, course materials labs, course includes anatomy and physiology of the heart, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, the Holter monitor, electrocardiography, and echocardiography.

**Credit Hours: 4**

## Course Descriptions

### **ALHL-205 Clinical Skills**

**Pre-requisites:** *ALHL 105*

This course is intended for medical assisting students and will discuss basic sterilization techniques and asepsis control; preparing and maintaining treatment areas, instruments, and equipment; taking vital signs and patient histories; maintaining patient records; and patient education and instruction.

**Credit Hours: 2**

### **ALHL-210 CLINICAL SKILLS II (GEC 4)**

**Pre-requisites:** *ALHL 205*

This course is intended for medical assisting students and will discuss specimen collection and processing; diagnostic testing; venipuncture and capillary puncture; preparing patients and assisting with exams and procedures; relaying screening and follow-up testing to patients. Students are required to complete CPR and first aid training prior to the start of the course.

**Credit Hours: 2**

### **ALHL-215 SEMINAR II**

**Co-requisites:** *ALHL 210, ALHL 220*

This course is intended for students who are graduating with a two-year degree in medical assisting. Covers the selection of internship site placements and weekly reports. Topics include programmatic and college exit assessments and career preparation; business meeting format, agendas, and meeting minutes. Presentations and portfolio are required.

**Credit Hours: 1**

### **ALHL-225 INTERNSHIP (GEC 4)**

**Co-requisites:** *ALHL 210, ALHL 220*

This course is intended for students who are graduating with a two-year degree in medical assisting. This is supervised on-the-job training totaling 150 clock hours in an area health care facility under the direction of a preceptor. Background checks, drug testing, current CPR/First Aid certification, TB testing, and additional training on site-specific policies may be required. The student is responsible for his/her on transportation to/from the location.

**Credit Hours: 1**

## **AMTE**

### **Advanced Manufacturing Technology (Electrical)**

#### **AMTE-110 DC AND AC CIRCUITS**

**Co-requisites:** *MATH 135*

Basic concepts of electricity, voltage, current, resistance, and power in DC and AC circuits are introduced. Topics include Ohm's law, Kirchhoff's laws, analysis of series and parallel circuits, principles of electromagnetism, characteristics of alternating currents, capacitive and inductive circuit analysis techniques, operation of basic transformers, equipment protection, and use of test equipment.

**Credit Hours: 3**

### AMTE-111 DC CIRCUITS: FUNDAMENTALS

**Co-requisites:** *MATH 115 or MATH 130*

A brief introduction to steady-state dc circuit analysis. Topics include: electrical fundamentals; resistors; capacitors; inductors, Ohm's Law, Kirchoff's laws; equivalent circuit analysis techniques; maximum power transfer; test equipment; and measurement techniques.

**Credit Hours: 3**

### AMTE-121 AC CIRCUITS: FUNDAMENTALS

**Pre-requisites:** *AMTE 131 or ECET 110.*

**Co-requisites:** *MATH 115, or MATH 130 and MATH 140*

A brief introduction to sinusoidal steady-state analysis of electrical circuits. Topics includes: sinusoidal waveforms; RMS and average values; complex arithmetic; phases; impedance; equivalent circuit analysis techniques; introduction to AC power; AC test equipment; and AC measurement techniques.

**Credit Hours: 3**

### AMTE-127 AC CIRCUITS: AC POWER & 3 PHASE SYSTEMS

**Pre-requisites:** *AMTE 121*

An introduction to complex power and three-phase systems. Topics include complex power; apparent power; real power; reactive power; an introduction to three phase systems; three phase analysis techniques; power in three phase systems; power factor and power factor correction; power measurement equipment and power measurement techniques.

**Credit Hours: 1**

### AMTE-131 INDUSTRIAL ELECTRONICS: TRANSFORMERS

**Pre-requisites:** *AMTE 127 or ECET 115*

A course covering the use of transformers in electrical systems with a focus on industrial power distribution. Topics include: ideal transformers; non-ideal transformers; transformer testing; transformer types and ratings; and three-phase transformers.

**Credit Hours: 1**

### AMTE-132 INDUSTRIAL ELECTRONICS: MOTORS & MOTOR CONTROL

**Pre-requisites:** *AMTE 127 or ECET 115*

An introduction to electric motors and the design, development and trouble shooting of motor control circuits. Topics include DC motors, single and 3-phase induction motors, motor circuit protection, motor control components, VFDs, and motor control circuits.

**Credit Hours: 1**

### AMTE-133 INDUSTRIAL WIRING AND NEC

A study of National Electric Code and wiring methods. Topics include conduit bending, wiring materials, wiring terminations, grounding and special, including hazardous, electrical locations.

**Credit Hours: 2**



### AMTE-134 INDUSTRIAL POWER AND DEVICES

**Pre-requisites:** *AMTE 110*

An introduction to three phase power systems and equipment. Topics include real power, reactive power, power factor, ideal transformers, transformer testing; transformer types and ratings, three-phase transformers, DC motors, single and 3-phase motors, motor circuit protection, motor control components, VFDs, motor control circuits and industrial power distribution.

**Credit Hours: 3**

### AMTE-141 PLC: FUNDAMENTALS

An introduction to the fundamentals of PLC hardware and software. Topics include: relay logic; PLC architectures; addressing; data types; ladder logic programming; seals; latches; counters; and timers. Concentration on industrial applications and standard programming practices.

**Credit Hours: 1**

### AMTE-142 AC PLC: INTERFACING AND HMIS

**Pre-requisites:** *AMTE 141*

An introduction to hardware interfacing, HMI design and HMI programming. Topics include: digital I/O; analog I/O; PLC system design and documentation; HMI design practices; HMI programming fundamentals; and fault reporting.

**Credit Hours: 1**

### AMTE-143 PLC: APPLICATIONS

**Pre-requisites:** *AMTE 142*

Advanced topics in industrial automation. Topics include: state machine design, implementation, and troubleshooting; distributed I/O systems; and automation system design and troubleshooting.

**Credit Hours: 1**

### AMTE-144 PLC: FUNDAMENTALS AND APPLICATIONS

An introduction to the fundamentals of PLC hardware and software, hardware interfacing, HMI design, HMI programming and industrial automation. Topics include: relay logic; PLC architectures; addressing; data types; ladder logic programming, PLC system design and documentation and troubleshooting.

**Credit Hours: 3**

### AMTE-151 CONTROL SYSTEM TECHNOLOGY: SENSORS AND ACTUATORS

**Co-requisites:** *AMTE 141*

An introduction to the standard sensors and actuators used in industrial automation systems. Topics include: limit switches; photo-eyes; inductive and capacitive proximity sensors; encoders; RTDs; thermistors; thermocouples; process sensors; load cells; pressure sensors; solenoids; pneumatic and hydraulic controls; current loop devices; sensor interfacing, and industrial networks.

**Credit Hours: 1**

### AMTE-152 CONTROL SYSTEM TECHNOLOGY: PROCESS CONTROL

**Pre-requisites:** *AMTE 141*

An introduction to industrial control systems with a focus on process dynamics and PID controllers. Topics include: obtaining and analyzing system response; the PID control algorithms; loop tuning; and applications.

**Credit Hours: 1**

### AMTE-153 CONTROL SYSTEM TECHNOLOGY: APPLICATIONS

**Pre-requisites:** *AMTE 172*

A project based course focusing on the design, implementation and troubleshooting of industrial control systems.

**Credit Hours: 1**

### AMTE-245 ADVANCED PLC

**Pre-requisites:** *AMTE 144*

Additional programming and applications of programmable logic controllers are examined. Emphasis is placed on programming techniques, networking, analog and specialty I/O modules and system troubleshooting. Upon completion, students should be able to specify, implement, configure and maintain complex PLC controlled systems.

**Credit Hours: 3**

### AMTE-261 INDUSTRIAL ROBOTICS

**Pre-requisites:** *Instructor permission*

An introduction to the fundamental concepts of industrial robotics. Topics include: robot safety; coordinate systems; robot geometry and configuration; manipulator control; sensor systems; path control; multi-axis dynamics; program development and debugging; and robotic work cell design and implementation.

**Credit Hours: 3**

### AMTE-281 INDUSTRIAL TROUBLESHOOTING

**Pre-requisites:** *Instructor permission*

A course in system-level troubleshooting as applied to industrial manufacturing systems. Topics measuring and evaluating problems, development of a systematic troubleshooting method, root cause analysis, corrective action, and evaluating the effects of corrective actions.

**Credit Hours: 2 Lecture and lab**

### AMTE-290 PRACTICUM

**Pre-requisites:** *Instructor permission*

Special assignment in the manufacturing technology field. Students must make a final presentation and submit a reflective writing assignment based on the field experience. A designated field supervisor and a faculty coordinator will oversee the field experience.

**Credit Hours: Variable**

### AMTE-299 SPECIAL TOPICS

**Pre-requisites:** *Instructor permission*

Selected studies in Advanced Manufacturing Technology.

**Credit Hours: Variable**

## AMTM

### Advanced Manufacturing Technology (Mechanical)

#### AMTM-113 INDUSTRIAL MECHANICS

Introduction to concepts of industrial mechanical systems, principles and equipment. All aspects of the systems, principles and equipment, including rigging, lifting, ladders & scaffolds, hydraulics pneumatics, lubrication, bearings, belts and pulleys, mechanical drives, vibration, alignment and electricity are investigated.

**Credit Hours: 3 Contact: 3**

#### AMTM-120 INTRODUCTION TO PIPING

Includes equipment and fittings necessary for routing pipe from nozzle to rack to nozzle. Topics include: intro to process plant design, pipe manufacturing and fabrication, pipe assembly, valve types and applications, pump selection, and pressure vessels. The topics covered are chosen to prepare for the SPED PPD Level I Certification Exam.

**Credit Hours: 2**

#### AMTM-121 ADVANCED PIPING: PROCESS PLANT LAYOUT & DESIGN

**Pre-requisite:** AMTM 120

Includes terminology and concepts needed for equipment layout within the process plant. This includes equipment placement, spacing and orientation. It also includes pipe routing to key equipment nozzles considering operations and maintenance. Topics include: design phases, instrumentation, heat exchangers, furnaces, and pipe racks. The topics covered are chosen to prepare for the SPED Professional Piping Designer Level III Certification Exam.

**Credit Hours: 2**

#### AMTM-247 FUNDAMENTALS OF FLUID POWER

**Co-requisites:** *MATH 115*

An introduction to fluid power concentrating on industrial pneumatics and hydraulics. Physical properties of hydraulic fluid, concepts of fluid flow and power transformations, hydraulic and pneumatic symbols, unit conversions and circuit reading.

**Credit Hours: 3**

#### AMTM-248 APPLICATIONS OF FLUID POWER

A course introducing industrial pneumatic hydraulic components and fluid transport devices. Fluid flow and power, volumetric, system operation, evaluation, maintenance and mechanical efficiencies as well as friction with in a system.

**Credit Hours: 2**

## Course Descriptions

### AMTM-280 MECHANICAL MAINTENANCE PRINCIPLES

**Pre-requisites:** *MATH 115 or MATH 113; MEET 121 or MEET 270, MEET 271, MEET 272*

This course covers a wide range of mechanical maintenance topics. The assortment of concepts includes topics such as: NDT (vibration analysis, oil analysis, thermography), alignment, rigging, lifting, lifting devices, maintenance management and troubleshooting.

**Credit Hours: 3**

### AMTM-299 SPECIAL TOPICS

**Pre-requisites:** *Instructor permission*

Selected studies in Advanced Manufacturing Technology.

**Credit Hours: Variable**

## ARTS

### Art

#### ARTS-110 MUSIC APPRECIATION <sup>(GEC 3)</sup>

Music appreciation is a basic course that focuses on listening to, appreciating and analyzing music of Western and American heritage. It is designed to enhance the student's understanding and enjoyment of music.

**Credit Hours: 3**

#### ARTS-120 ART APPRECIATION <sup>(GEC 3)</sup>

This course is intended to be a first level introductory art course for the beginning art student, as well as the student seeking humanities elective in the visual arts. The student's appreciation of art will be developed through aesthetics, disciplines, critical evaluations, projects, history and attendance at a real or virtual art show.

**Credit Hours: 3**

## ASLI

### American Sign Language

#### ASLI-101 FINGER SPELLING I

This course teaches rules and techniques for finger spelling, along with lexical items. Students will become fluent in the manual alphabet.

**Credit Hours: 1**

#### ASLI-102 FINGER SPELLING II

**Pre-requisites:** *ASLI 101*

This course expands upon the rules and techniques for finger spelling begun in ASLI 101. Students will increase fluency in the manual alphabet, lexical items and ASLI poetry.

**Credit Hours: 1**

## Course Descriptions

### ASLI-103 FINGERSPELLING III

**Pre-requisites:** *ASLI 101 and 102 or EIPA performance score of 3.5 or higher*

Dactylology uses the manual alphabet to provide a visual representation of English words. Fingerspelling is generally limited to proper names of people, places, acronyms, brand names, vocabulary, numbers, spelling words and titles. Fingerspelled loan or lexical signs are a combination of English letters and ASLII movements.

**Credit Hours: 1**

### ASLI-104 EDUCATIONAL FINGERSPELLING I

Dactylology uses the manual alphabet to provide a visual representation of English words. Fingerspelling is generally limited to proper names of people, places, acronyms, brand names, vocabulary, numbers, spelling words and titles. Fingerspelled loan or lexical signs are a combination of English letters and ASLII movements. At times key information may need to be fingerspelled, especially if a student must recognize a term while reading or taking a test. This class will also focus on the students' ability to produce manual numbers with a fluent rate.

**Credit Hours: 1**

### ASLI-111 AMERICAN SIGN LANGUAGE I

**Co-requisites:** *ASLI 101*

This course focuses on the development of knowledge and language skills needed for communicating with deaf people who sign. Focus on numbers, fingerspelling, and culture of the deaf.

**Credit Hours: 3**

### ASLI-112 AMERICAN SIGN LANGUAGE II

Continued development of knowledge and language skills for communicating for deaf people who sign. Includes numbers, fingerspelling and culture. Emphasis on enhancement of receptive skills and continued development of expressive sign skills. Application of rudimentary, syntactical and grammatical structures stressed with continued development of sign vocabulary.

**Credit Hours: 3**

### ASLI-113 AMERICAN SIGN LANGUAGE III

**Pre-requisites:** *ASLI 111 and 112 or EIPA performance score of 3.5 or higher*

Continuation of ASLI 112. This course is grounded in contemporary language theories that balance grammar instruction and conversational skills while developing language proficiency. This course focuses on prosodic language development via expressive narratives, utilizing exercises that reach multiple learning styles, along with scope and sequence topics mimic natural conversation. This course focuses on highlighting the differences between ASLII and English and making cultural and linguistic uniqueness of the deaf world accessible.

**Credit Hours: 3**

### ASLI-114 AMERICAN SIGN LANGUAGE IV

**Pre-requisites:** *ASLI 113 or EIPA performance score of 3.5 or higher.*

This course is a continuation of ASLI 113. Grounded in contemporary language theories that balance grammar instruction and conversational skills while developing language proficiency. This course focuses on prosodic language development via expressive narratives, utilizing exercises that reach multiple learning styles, along with scope and sequence topics mimic natural conversation. This course focuses on ASLII entirely and no voicing/speaking will occur during class.

**Credit Hours: 3**

### ASLI-121 EDUCATIONAL INTERPRETING AS A CAREER

Interpreting as a Career will prepare students for interpreting business practices according to state guidelines and school policies. This class will enhance students' knowledge of educational interpreting principles while following the Educational Interpreter Guidelines. This class focuses on the interpreting model theories, invoices, portfolios, invoice keeping and professional business practices for those interpreters on contract in school systems and at the same time prepares students for professional business practices while adhering to interpreting guidelines, school policies and procedures.

**Credit Hours: 1**

### ASLI-122 DEAF CULTURE AND HISTORY

This course teaches the history of American Sign Language which is based in French Sign Language and the development of Martha's Vineyard, historically deaf community. In addition, the stories of notable figures in deaf history that the pertinent to understand and appreciation ASLI and interpreting will be studied.

**Credit Hours: 3**

### ASLI-123 COCHLEAR IMPLANTS

This course focuses on different implant technologies and prepares students to correctly adjust the educational environment for accessibility for those with implants. This course will prepare students in the contents of early identification, intervention techniques, oral deaf education, amplification programs, audio logical testing, interpreting audiograms and alternative placement. The students will discuss Cochlear Implants and the ramifications the implants have on the education setting, student, hearing peers and the deaf community.

**Credit Hours: 1**

### ASLI-124 EDUCATIONAL INTERPRETING PRINCIPLES

This course will prepare students for the EIPA written portion exam. This class will enhance students' knowledge of educational interpreting guidelines and code of ethics while working in the educational setting. The EIPA written test is based on a set of knowledge standards that was developed by a group of experts, including deaf consumers, interpreters, interpreter trainers, deaf educators and ASLI linguistics. The test is not a factual memory test. In other words, memorization of the knowledge standards only may not enable you to receive a passing score. Application of knowledge to situations is necessary in order to pass this examination. The test is also based on the EIPA Code of Professional Conduct of Educational Interpreters. The Rid Code of Ethics is not the basis for professional conduct in the EIPA written test.

**Credit Hours: 3**

### ASLI-199 SPECIAL TOPICS

Special topics course relating to American Sign Language.

**Credit Hours: 1-3**

### ASLI-200 VOICING ME

**Pre-requisites:** *ASLI 111*

This course engages students in the development of consecutive interpreting skills, focusing on further development of processing skills associated with interpreting.

**Credit Hours: 3**

## Course Descriptions

### ASLI-201 VOICING II

**Pre-requisites:** *Prerequisite: Qualified students should see Kim Lovinski to enroll*

Development and cognitive processing skills in English focuses on those trilingual skills necessary to develop before working between two languages: understanding the relationship between visual form and meaning, lexical substitution, paraphrasing, at the proposition and discourse levels, identifying the main idea, summarizing, comprehension, memory, repetition, pattern, inference and multitasking.

**Credit Hours: 3**

### ASLI-202 VOICING III

**Pre-requisites:** *ASLI 200 or 201 or EIPA performance score of 3.5 or higher*

This course engages students in the development of simultaneous interpreting skills, focusing on further development of the dual tasking skills associated with interpreting. This class focuses on the interpreter's ability to listen to the message and predict where the speaker is going. In simultaneous interpretation (SI), the interpreter renders the message in the target-language as quickly as he or she can formulate it from the source language, while the source-language speaker continuously speaks. Students will show the ability to use process decal age, the ability to watch a signed message, use process time, analyzing, construction form and then creating a spoken equivalent without changing the meaning.

**Credit Hours: 3**

### ASLI-221 ENGLISH INTERPRETING

**Pre-requisites:** *Prerequisite: ASLI 112 or EIPA performance score of 3.5 or higher*

This course examines the different methodologies incorporated when interpreting in an English course. When interpreting in an English course, students learn to follow the rules of grammar to communicate information and ideas effectively in a written form. Interpreters must know the phoneme sequencing program for reading, spelling and speech in order to interpret effectively and accurately. This course examines the components of language and theories of language acquisition of phonology, morphology, syntax, semantics and pragmatics.

**Credit Hours: 3**

### ASLI-299 SPECIAL TOPICS

Special topics course relating to American Sign Language.

**Credit Hours: 1-3**

## ATEC

### Administrative Professional Technology

#### ATEC-100 KEYBOARDING

This is a one-credit hour test- out exam. The test consists of 3 timed-writings at 40 wpm for 5 minutes with 95% accuracy.

**Credit Hours: 1**

## Course Descriptions

### ATEC-105 COMPUTER LITERACY

Introductory class for incoming students who have had little or no computer training. Provides coverage on computer basics, including computer hardware/components, operating systems, computer communications and application software. Intended to help students become computer literate as they learn to use Windows, Microsoft Office Suite and navigate the internet. It is also helpful to those who want to understand how to use the computer effectively for class and personal use.

**Credit Hours: 3**

### ATEC-110 OFFICE KEYBOARDING

Emphasis is placed on technique, keyboard mastery, and skill building. Minimum speed attainment of 40 wpm with 95% accuracy.

**Credit Hours: 2**

### ATEC-115 FUNDAMENTALS OF BUSINESS COMPUTER APPLICATIONS

This course is an overview that will give students an opportunity to investigate business computer applications. The student will get a "hands-on" familiarity (non-programmer) of the Microsoft Office Suite and will become proficient in Word, Excel, Access, and PowerPoint. The student will integrate documents from one application to another.

**Credit Hours: 3**

### ATEC-120 BEGINNING DOCUMENT PROCESSING

**Pre-requisites:** *ATEC 110 or equivalent skill level*

Emphasis is placed on learning the keyboard and developing proper formatting techniques using the latest in computer technology. English grammar, proofreading skills, and composition are strengthened through learning activities. Upon completion of this course, it is expected that the student will be able to key at a minimum rate of 50 wpm for 5 minutes with 95% accuracy.

**Credit Hours: 3**

### ATEC-125 ADVANCED DOCUMENT PROCESSING

**Pre-requisites:** *ATEC 120*

Emphasis is placed on maintaining proper formatting techniques, enhancing English grammar, proofreading and composition skills while increasing speed and accuracy. Upon completion of this course, it is expected that the student will be able to key at a minimum of 60 wpm for 5 minutes with 95% accuracy. The student will master advanced skills in the formation of business documents and will be able to integrate documents, spreadsheets, presentations, and databases.

**Credit Hours: 3**

### ATEC-130 MEDICAL ADMINISTRATIVE/ELECTRONIC HEALTH RECORDS SPECIALIS

This is a two part course. Part 1 is the medical administration training. This training will prepare the student to function in an entry level position as an administrative/clerical person in the health care industry. The training will cover important background information on medical language, appointment scheduling, application of HIPAA, introductions into medical insurance billing and coding, medical ethics, customer service, and legal aspects. Part 2 of the course will be an introduction to the management of the electronic healthcare records. Students will learn the necessary components in maintaining the medical record in electronic format. Course content will include, but not limited to topics such as an understanding the function of EHR systems and introduction to medical record software, data entry at the point of care, understanding electronic orders, privacy and security of health records. Emphasis on



## Course Descriptions

both parts of the training will be placed on the successful completion of the national certification exams at the conclusion of the course. These include Medical Administrative Assistant (CMMA) and Electronic Health Records Specialist (CEHRS).

**Credit Hours: 6**

### ATEC-200 DESKTOP PUBLISHING

**Pre-requisites:** ATEC 125

Hands-on application of desktop publishing software used to prepare/create, revise and produce print and multimedia materials using various desktop publishing software packages. Upon completion of the course, the student will be knowledgeable in selecting page layouts, formatting text, positioning graphics, and applying appropriate typographic design enhancements.

**Credit Hours: 3**

### ATEC-220 RECORDS AND DATABASE MANAGEMENT

**Pre-requisites:** ATEC 115

This course is designed to provide the student with the basic terminology of records management, alphabetic and numeric filing theory and practice. Record storage and retrieval systems, and purging files according to government rules for records retention will be covered. Managing files manually and electronically (using specialized software) will also be covered.

**Credit Hours: 3**

### ATEC-230 OFFICE PROCEDURES

**Pre-requisites:** ATEC 200, ATEC 120

This capstone course examines the procedures and terminology related to specialized office environments (Executive, Legal, or Medical). Utilization of specialized software application programs and/or office simulations. Involves creating portfolios for a business, event planning, presentations, and travel arrangements are implemented.

**Credit Hours: 3**

### ATEC-250 MICROSOFT CERTIFICATION: ACCESS

**Pre-requisites:** ATEC 115; *permission of the Director/Chairperson*

This course provides an effective, systematic way to review and master Microsoft Access. Step-by-step, on screen instructions, performance-based activities, practice assessments, and registration information are provided. Upon completion of this course, the student will have the requisite skills to become MOS certified in Access. (If **Credit hours** equivalency or test-out is desired student must pay test-out fee plus certification fee.)

**Credit Hours: 1**

### ATEC-255 MICROSOFT CERTIFICATION: EXCEL

**Pre-requisites:** ATEC 115; *permission of the Director/Chairperson*

This course provides an effective, systematic way to review and master Microsoft Excel. Step-by-step, on screen instructions, performance-based activities, practice assessments, and registration information are provided. Upon completion of this course, the student will have the requisite skills to become MOS certified in Excel. (If **Credit hours** equivalency or test-out is desired student must pay test-out fee plus certification fee.)

**Credit Hours: 1**

## Course Descriptions

### ATEC-260 MICROSOFT CERTIFICATION: POWERPOINT

**Pre-requisites:** ATEC 115; permission of the Director/Chairperson

This course provides an effective, systematic way to review and master Microsoft PowerPoint. Step-by-step, on screen instructions, performance-based activities, practice assessments, and registration information are provided. Upon completion of this course, the student will have the requisite skills to become MOS certified in PowerPoint. (If **Credit hours** equivalency or test-out is desired student must pay test-out fee plus certification fee.)

**Credit Hours: 1**

### ATEC-265 MICROSOFT CERTIFICATION: WORD

**Pre-requisites:** ATEC 115; permission of the Director/Chairperson

This course provides an effective, systematic way to review and master Microsoft Word. Step-by-step, on screen instructions, performance-based activities, practice assessments, and registration information are provided. Upon completion of this course, the student will have the requisite skills to become MOS certified in Word. (If **Credit hours** equivalency or test-out is desired student must pay test-out fee plus certification fee.)

**Credit Hours: 1**

### ATEC-199/299 SPECIAL TOPICS IN ADMINISTRATIVE PROFESSIONAL TECHNOLOGY

**Pre-requisites:** Consent of Instructor

Independent study of topic(s) pertinent to the profession of administrative professional technology.

**Credit Hours: 1-3**

## BDAC

### Building Design and Construction

#### BDAC-101 FUNDAMENTALS OF BUILDING DESIGN

The course presents an introduction to form, space and the principles that guide their ordering in the built environment. Topics covered include but are not limited to the primary elements, form, space, organization, circulation, proportion and scale. Based on the premise that drawing is central to the design process, an emphasis on drawing as a medium for visualizing and communicating design ideas will also be given.

**Credit Hours: 3**

#### BDAC-103 PRINCIPLES OF BUILDING CONSTRUCTION I

An introduction to the principles of building construction, this course provides a comprehensive overview of the materials and methods used in today's construction industry. Topics include but are not limited to the building site, foundation systems, the building's structure and envelope, finished, and building systems. Upon completion of this course, students will be equipped with knowledge needed for approaching new material and techniques encountered in today's construction industry.

**Credit Hours: 3**

### BDAC-105 PRINCIPLES OF BUILDING CONSTRUCTION II

**Pre-requisites:** *BDAC Spring 2014, BDAC 103 Fall 2014*

**Co-requisites:** *SBT Spring 2014, SBLT/BDAC Fall 2014*

This course examines the materials and methods of building construction. Topics include concrete construction, roof systems, windows and doors, exterior walls, cladding, ceilings and floors, interior walls and use of glass.

**Credit Hours: 3**

### BDAC-106 PRINTREADING

Examines printreading for the carpentry, electrical, mechanical, and general building trades. Plans for existing residential and commercial structures are reviewed. Single and multifamily dwellings, plus mixed-use and light commercial project plans are covered.

**Credit Hours: 2**

### BDAC-107 SITE ANALYSIS AND DEVELOPMENT

**Pre-requisites:** *Eligible MATH-130 Spring 2014, Math-110 Fall 2014*

**Co-requisites:** *SBT Spring 2014, SBLT/BDAC Fall 2014*

An introduction to the principles and techniques of basic site engineering for grading, drainage, earthwork and road alignment. Topics include interpreting landform and contour lines, designing horizontal and vertical road alignments, sequencing construction and designing and sizing storm water management system.

**Credit Hours: 3**

### BDAC-201 BUILDING CODES AND STANDARDS

**Pre-requisites:** *BDAC 103*

**Co-requisites:** *SBLT/BDAC*

This course examines the international building codes. Topics related to codes include occupancy, construction types, fire resistant methods, egress and accessibility, interior spaces, roof assemblies, exterior walls, soils, and foundations, structure provisions, test and inspections, and building materials.

**Credit Hours: 3**

### BDAC-203 MECHANICAL AND ELECTRICAL SYSTEMS

Provides an overview of building systems. Topics include building systems for potable water, sanitary water, storm water, HVAC, building automation and electrical. Also includes principles of refrigeration and electricity.

**Credit Hours: 3**

## Course Descriptions

### BDAC-205 BUILDING SCIENCE APPLICATIONS

Examines printreading for the carpentry, electrical, mechanical, and general building trades. Plans for existing resid Reviews and builds upon the principles of heat, air, and vapor flow through the building envelope. Types of materials will be analyzed for various building assemblies including the roof, walls, and foundation. This course will also cover innovative new construction techniques addressing structure, waterproofing, moisture management, and thermal resistance. A variety of materials and techniques will be used to examine foundations, wall assemblies, roof assemblies, and fenestration. Entail and commercial structures are reviewed. Single and multifamily dwellings, plus mixed-use and light commercial project plans are covered.

**Credit Hours: 3**

### BDAC-210 BIM FUNDAMENTALS

Students will learn how to quickly and efficiently model design concepts for visualization using Revit building information modeling (BIM) software. The software will be used as a management tool throughout the design and construction process. BIM improves coordination, supports sustainable design, reduces conflicts and errors, and ensures project success.

**Credit Hours: 3**

### BDAC-211 BIM MANAGEMENT

**Pre-requisites:** *BDAC 210*

A continuation of BIM Fundamentals, BDAC 210, that allows student to coordinate, update and share design data with team members throughout the design, construction and management phases of a building's life. Students will learn how to set up standards with templates that include annotation styles, preset views, sheets and schedules, as well as creating custom element types and families. **Credit Hours: 3**

## BIOL

### Biology

#### BIOL-101 GENERAL BIOLOGY <sup>(GEC 2)</sup>

A biology course for non-science majors. The focus will be on examining the building blocks of plants and animals, how energy and life interact, discovering genetics, studying evolution and diversity of life, learning about ecology and ecosystems, and investigating human and plant anatomy and physiology.

**Credit Hours: 3**

## Course Descriptions

### BIOL-102 GENERAL BIOLOGY LAB <sup>(GEC 2)</sup>

**Co-requisites:** *BIOL 101*

Lab for BIOL 101. Laboratory activities will be demonstrated by faculty and experiments will be conducted by students to reinforce concepts introduced during lecture.

**Credit Hours: 1**

### BIOL-112 INTRODUCTION TO BIOTECHNOLOGY

A study in techniques and concepts including Bioinformatics, Proteomics, and Genomics, as well as detailed information on agricultural, medical, forensic, and regulatory issues that affect the biotechnology industry.

**Credit Hours: 3**

### BIOL-113 INTRODUCTION TO BIOTECHNOLOGY LAB

A study of lab methods and exercises to assist students in establishing a coherent, integrated understanding of laboratory work in biotechnology.

**Credit Hours: 1**

### BIOL-199 SPECIAL TOPICS

Special topics relating to biology.

### BIOL-210 HUMAN ANATOMY AND PHYSIOLOGY <sup>(GEC 2)</sup>

**Pre-requisites:** *Eligible for 100 level MATH and ENGL 101*

This course will cover the basic principles of human anatomy and physiology beginning with the cell and progressing to tissues and body systems. Anatomical exploration of the human body will include the integumentary, skeletal, muscular, nervous, sensory, endocrine, circulatory, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. Human physiologic function will be reviewed as it applies to cells, tissues, organs, and body systems. The concepts of heredity and human anatomical and physiologic development will be studied. Correct terminology utilization will be expected throughout the course. As part of a required laboratory component, a mammalian dissection is required.

**Credit hours: 4**

### BIOL-215 ANIMAL ANATOMY AND PHYSIOLOGY <sup>(GEC 2)</sup>

**Pre-requisites:** *Admission to the Veterinary Technology Program*

This course will introduce students to the anatomy and physiology of domestic animals including a survey of cells, tissues and major body systems for the cat, dog, and horse, with lesser emphasis on birds, reptiles, and amphibians. This course is intended for students entering veterinary technology, veterinary assisting or other animal related fields. As part of a required laboratory component, a mammalian dissection is required. **Credit Hours: 4**

### BIOL-220 HUMAN ANATOMY <sup>(GEC 2)</sup>

**Pre-requisites:** *Eligible for ENGL 101 and 100 level Math*

This course will provide an anatomical exploration of the principles of human anatomy, beginning with the cell and progressing to tissues and all body systems. Human anatomical development from conception to across the life span will be synthesized. On-Campus laboratory experiences will include both on-site experimentation and virtual interactive simulations. A lab component is required with this course.

**Credit Hours: 4**

## Course Descriptions

### BIOL-221 HUMAN PHYSIOLOGY <sup>(GEC 2)</sup>

**Pre-requisites:** *BIOL 220 with a C or better*

This course is a continuation of BIOL 220 and will explore the principles of human physiology. Cause and effect mechanisms of the human body will be examined as they apply to cells, tissues, organs, and body systems in the healthy state. On-Campus laboratory experiences will include both on-site experimentation and virtual interactive simulations. A lab component is required with this course.

**Credit Hours: 4**

### BIOL-230 PRINCIPLES OF MICROBIOLOGY <sup>(GEC 2)</sup>

**Pre-requisites:** *Eligible for ENGL 101 and 100 level Math*

This course is a comprehensive introduction to the biology of microorganisms and viruses. Special attention will be given to microorganism and viruses of medical importance. Course topics will include cellular structures and functions, biochemical processes, replication, genetics, disease prevention and control, and immunology.

**Credit Hours: 3**

### BIOL-231 PRINCIPLES OF MICROBIOLOGY LAB <sup>(GEC 2)</sup>

**Co-requisites:** *BIOL 230*

Lab for BIOL 230. Students will perform laboratory exercises to reinforce lecture concepts. Laboratory exercises will include principles of asepsis, identification of common microbes, study of bacterial physiology, cellular staining techniques, microscopic observation of morphological characteristics, and culturing of bacteria.

**Credit Hours: 1**

### BIOL-245 NUTRITION AND DIET THERAPY

**Pre-requisites:** *Eligible for 100 level MATH and ENGL-101*

This course will review the principles of basic nutrition and diet therapy. The requirements of a healthy diet will be discussed as it occurs across the human life span. Selected dietary alterations associated with nutritional health will be reviewed including sports nutrition, eating disorders, diabetes, CVD, obesity, bone health, and cancer.

**Credit Hours: 3**

### BIOL-299 SPECIAL TOPICS

Special topics course relating to biology.

## BLST

### Blasting Technology

#### BLST-100 BASIC BLASTING

This course introduces students to the basics of drilling and blasting. Introductory components include explosive terms, types and properties of explosives, initiation systems, blast mathematics and design, drilling and geology, environmental and regulatory issues and blast equipment.

**Credit Hours: 2**

### BLST-102 BLASTING MATERIALS-STORAGE, HANDLING & TRANSPORTATION

**Co-requisites:** *BLST 100*

This course covers the identification of various explosive materials by type, marking and applications. It will also introduce students to the safety procedures & legislation relating to the safe storage, handling and transportation of dangerous goods and hazardous materials. The Safety Library Publications (SLP) designed by the institute of Makers of Explosives (IME) form the basis of this course.

**Credit Hours: 3**

### BLST-103 BLASTING FIELD CAMP I

**Pre-requisites:** *BLST 101, BLST 102*

This field camp gives students the opportunity for practical hands-on experience with blasting in a highly supervised environment. Students will work on basic blasting applications and problems utilizing their skills and knowledge from BLST 100 and BLST 102. Students will assist drillers and certified blasters in various aspects of drill and blast cycles and associated paperwork. Regulatory personnel will mentor students in blast inspection, blast complaints, and damage claim processes. Students will shadow seismic company employees to gain practical field experience in proper seismograph installation and record analysis.

**Credit Hours: 2**

### BLST-105 BLASTING CALCULATIONS

**Co-requisites:** *Math 115 or permission from Blasting Program Coordinator*

This course will enable students to apply specific mathematical concepts and acquire foundation skills important in blasting. It is designed to complement and reinforce learning within other first semester courses and includes applied operations and concentration on the mathematics and calculations used in the field of blasting. Calculations will include volumetrics, explosive charge weights, scaled distances, firing times, pounds per delay, powder factors, spacing and burden, ground vibration predictions, spatial relationships, and Ohm's Law.

**Credit Hours: 3**

### BLST-106 BLASTING COMMUNICATIONS AND RECORDS

**Co-requisites:** *BLST 105*

This course focuses on the development of fundamental reading, writing, speaking, observational and research skills within the context of the blasting field. Students will prepare and respond to a variety of technical documents, some with links to their program courses, and in the process learn to apply rules of usage in keeping with professional and program record keeping standards. Blast plans, drill logs, seismic records, blast log, inventory, public perception, complaints, damage claims, judicial testimony will be covered. Lab will focus on hands-on use of various seismograph manufacturers, firmware settings and field setup. The proper use of GPS and 2D laser profilers in blast documentation will be extensively examined as well as the proper use of field density kits.

**Credit Hours: 3**

### BLST-120 BLASTING FUNDAMENTALS

An introductory course teaching basic mining and construction blasting fundamentals. Students will learn blasting regulatory and safety requirements, explosive types/classifications and properties, initiation systems, blasting calculations, environmental issues, drilling, geology, and blast diagnostic/monitoring equipment. Industry sources such as The International Society of Explosives Engineers (ISEE) Blasters' Handbook, The Institute of Makers of Explosives (IME) Safety Library Publications (SLP's), and the ISEE Explosives Reference Database will be referenced throughout the course.

**Credit Hours: 3**

### BLST-122 BLASTING SAFETY ISSUES AND LAWS

**Pre-requisites:** *BLST 120*

This course involves a study of various federal and state blasting and drilling regulatory requirements. Explosives transportation, storage, use, and handling compliance standards from MSHA, BATF, OSHA, NFPA, OSMRE and DOT regulatory agencies are reviewed. Surface and underground construction, coal, metal, and non-metal blasting environments are examined. Students will compare their state/county/township drilling/blasting regulations against other state and federal requirements to determine the level of regulatory consistency between agencies.

**Credit Hours: 3**

### BLST-199 SPECIAL TOPICS

Special topics course reserved for freshman status.

**Credit Hours: 1-4**

### BLST-210 BLAST DESIGN AND LAYOUT

**Pre-requisites:** *BLST105, BLST 106*

**Co-requisites:** *MATH 115*

Students will learn to review and interpret blast plans in order to determine initial blast parameters and constraints. Konya, Ash, Bergmann and Chiapetta formulas are studied to determine proper production and pre-split hole diameters, powder factors, decking requirements, stem heights, spacing and burden calculations, and subdrill requirements. Spatial relationships related to protected and other structures and ground vibration prediction techniques are broadly studied, as well as, 2D laser profiles used in angled bore-hole scenarios.

**Credit Hours: 3**

### BLST-211 ABOVE GROUND DRILLING

This course introduces students to various drilling applications, operating theories, and working principles of rock drills and air compressors. Other course components include Safety and Health, Drill Maintenance, Drilling Patterns and Layout. Course includes classroom and hands-on segments and taught through WV Laborers' Training Center instructors. Last 5 week summer course.

**Credit Hours: 2**



### BLST-212 BLASTING SAFETY ISSUES AND LAWS

**Pre-requisites:** *BLST 102*

This course emphasizes safety regulations and accompanying legislation for the correct handling, storage and procedures with blasting equipment, explosives and their components, and tools. Proper equipment selection is stressed. Students will also develop a thorough understanding of the consequences of their actions on blast sites including responsibility and liability. Blasting regulations and recommendations from MSHA, OSM, BATF, DOT, OSHA, NFPA, IME, WV Miners Health Safety and Training, WV Office of Explosives and Blasting as well as relevant KY, OH, VA, PA, and MD blasting regulations will be reviewed.

**Credit Hours: 3**

### BLST-213 BLASTING FIELD CAMP II

**Pre-requisites:** *Completion of 3rd semester or permission of instructor*

This second field camp gives student more opportunity for practical hands-on experience with blasting in a highly supervised environment. Students will work on more advanced blasting applications and problems utilizing their skills and knowledge from the first three semesters of the program. Students will assist driller(s) and certified blaster(s) in various drill and blast activities and associated paperwork. Students will continue field training with various blasting regulatory inspectors and explosive manufacturing sites.

**Credit Hours: 2**

### BLST-225 BLASTING IN CONSTRUCTION AND QUARRIES

**Pre-requisites:** *BLST 105 or permission of instructor*

This course covers blasting operations in surface/underground rock quarries and on construction sites. Trench, highway, foundation and secondary blasting scenarios are explored. Methods to reduce blasting flyrock potential is continually studied. Rock fragmentation analysis methods and case studies are reviewed.

**Credit Hours: 3**

### BLST-226 ENVIRONMENTAL ISSUES IN BLASTING

**Pre-requisites:** *BLST 210, BLST 212, HWY 120*

This course concentrates on the environmental impact of blasting. Students will learn about the negative impacts of uncontrolled blasting and possible environmental effects. Students will learn how to control and minimize unwanted environmental factors associated with blasting. Concentration will be placed on close proximity blasting to structures, including the creation, detection, migration, and dissipation of noxious gases. Case studies are widely studied. Weather, open face direction, over and under confinement, fly rock, gases, air blast, vibration regression analysis, structure response, and topography will be examined.

**Credit Hours: 3**

### BLST-228 INITIATION SYSTEMS

**Pre-requisites:** *BLST 210*

An advanced study of initiation systems involved in explosives detonation. Scheduled are electric, non-electric, and electronic systems. In-depth aspects of circuits, hook-up techniques, shot timing, blast performance, safety, and blast equipment requirements are covered.

**Credit Hours: 3**

## Course Descriptions

### BLST-299 SPECIAL TOPICS

Special topics course reserved for sophomore status.

**Credit Hours: 1-4**

## BUSN

### Business

### BUSN-106 INTRODUCTION TO BUSINESS

This course is a survey of business practices and procedures. It explains basic business principles such as management, accounting, finance, production, marketing, law, economics, fiscal and monetary policy, ethics, and technology. Other current business topics may be discussed.

**Credit Hours: 3**

### BUSN-112 BUSINESS MATHEMATICS <sup>(GEC 2)</sup>

**Pre-requisites:** *ACT Math 19 or Accuplacer Arithmetic 85.*

**Co-requisites:** *MATH 012 if required by placement*

This course will use fractions, decimals, and percentages to solve problems involving equations. Simple and compound interest, future and present value, annuities, sinking funds, banking, inventory valuation, depreciation methods, retail pricing and business discounts, payroll taxes, overhead allocations, home ownership with amortization schedules, financial statements and ratios are other topics that are taught. Other possible topics include financial statements and ratios, investments, and simple statistics. (Also listed as MATH 112)

**Credit Hours: 3**

### BUSN-120 INTERPERSONAL RELATIONS: INTERVIEWING STRATEGIES

**Pre-requisites:** *Must have completed at least 40 Credit Hours towards degree requirements*

This course will prepare a student for the job search by composing resumes and letters of application. SWOT analysis, salary research, statement of worth, includes building a professional portfolio and participating in a mock interview.

**Credit Hours: 1**

### BUSN-121 INTERPERSONAL RELATIONS: PROFESSIONAL ETIQUETTE

Course emphasizes essential professional courtesies, introductions, gift giving, meeting arrangements, and dining tips. Concentration on both American and international cultures.

**Credit Hours: 1**

### BUSN-122 INTERPERSONAL RELATIONS: CUSTOMER SERVICE

**Pre-requisites:** *Eligible for ENGL 101*

Professional interpersonal communication skills. Includes both verbal and non-verbal signals. Meeting organization goals, attracting and retaining customers, diffusing angry clients dealing with difficult situations, and working with diverse populations.

**Credit Hours: 1**

### BUSN-199 SPECIAL TOPICS

Special topics course relating to Business.

**Credit Hours: 1-3**

## Course Descriptions

### BUSN-201 BUSINESS LAW I (B)

**Pre-requisites:** *Eligible for ENGL 101*

This course is intended to serve as a basis for understanding of the legal system and legal processes as well as legal reasoning. This course will explore various aspects of the law including substantive and procedural law as well as topics such as contracts, property, crimes, torts, business organizations and other aspects of the law related to business. These students will acquire an overview of the law but will not be able to practice law or deal with complicated legal issues.

**Credit Hours: 3**

### BUSN-214 INTERNATIONAL BUSINESS

**Pre-requisites:** *BUSN 106*

This course reviews how to compete ethically in the external environment (cultural, legal, political and social) of international business. It examines international practices in accounting, communication, finance, management and marketing. It discusses theories of international trade and international economic development.

**Credit Hours: 3**

### BUSN-230 BUSINESS COMMUNICATIONS AND ETHICS (B)

**Pre-requisites:** *ENGL 101 Grade of "C" or better*

This course is designed to help students develop writing skills needed to succeed in today's technologically enhanced workplace through the use of a comprehensive grammar/mechanics review. Upon completion of this course the student will possess the skills needed to compose business correspondence (letters, memos, reports, etc.) at the computer. The student will have enhanced listening, speaking, critical thinking, and nonverbal skills enhanced through the use of workshop activities. The student will be able to take a conscious stand on social issues such as ethics, etiquette, and multicultural concerns. Prerequisites: Eligible for ENG 101 and keyboarding skills.

**Credit Hours: 3**

### BUSN-266 BUSINESS INTERSHIP

**Pre-requisites:** *ENG 101, completion of a minimum of 45 hours and/or permission of supervising instructor and Program Coordinator*

Associate degree business students work in businesses and industries in the community at least 160 hours for the purpose of gaining on-the-job experience. Students attend a weekly seminar. Students are responsible for securing employment. Graded on a Pass/Fail basis.

**Credit Hours: 2**

### BUSN-296 BUSINESS STATISTICS (B) <sup>(GEC 4)</sup>

**Pre-requisites:** *"C" or better in MATH 130*

Business statistics is an introduction to descriptive statistics and some inferential statistics. It explains measures of central tendency, measures of dispersion, probability concepts, hypothesis testing and other statistical techniques. It explains both discrete and continuous probability distributions. It shows how to use these distributions to describe and make inferences so better decisions can be made in the fields of business and economics. These uses are transferable to other fields such as engineering, medicine, and other fields. The use of technology and/or a statistical calculator will be required in certain applications. Prerequisite: MAT 130 with a C or better.

**Credit Hours: 3**

### BUSN-298 BUSINESS STUDIES SEMINAR

**Pre-requisites:** *All graduation requirements except for the courses in which the student is currently enrolled must be completed.*

This capstone course must be taken the semester the community college student plans to graduate. Program specific and general knowledge exit examinations, oral presentations, writing assignments, and case analyses will be used to measure student competencies. Seminars will be presented on such topics as resume writing, interviewing skills, time management, business etiquette, and customer service.

**Credit Hours: 1**

### BUSN-299 SPECIAL TOPICS

Special topics course relating to Business.

**Credit Hours: 1-3**

## CHEM

### Chemistry

#### CHEM-100 CONSUMER CHEMISTRY

This course is the study of the fundamental concepts of chemistry for non-science majors. The focus is on the role that chemistry plays in the daily lives of individuals and the effect of chemistry on society.

**Credit hours: 3**

#### CHEM-101 GENERAL CHEMISTRY <sup>(GEC 2)</sup>

**Pre-requisites:** *MATH 060 or MATH 113, 100 level English or equivalent ACT scores*

A general chemistry course that provides an introduction to elements, atoms, the periodic table, covers the nature of ionic and molecular compounds, and discusses chemical reactions including stoichiometry energies, rates, and equilibria.

**Credit Hours: 3**

#### CHEM-102 GENERAL CHEMISTRY LAB

**Pre-requisites:** *100 level Math, 100 level English or equivalent ACT scores*

A virtual lab course for CHEM 101 General Chemistry. Explores the five different chemistry areas: inorganic qualitative analysis, simulation of foundational experiments of quantum mechanics, behavior of ideal, real and van der Waals gases, precise quantitative titration experiments, and calorimetry experiments.

**Credit Hours: 1**

#### CHEM-110 FUNDAMENTALS OF CHEMISTRY <sup>(GEC 2)</sup>

**Pre-requisites:** *ACT English score 18 or higher or ENG 101 or ENGL 095 with a C or better, ACT Math admission level scores*

**Co-requisites:** *ENG 101*

Fundamentals of inorganic, organic, and biological chemistry. Oriented toward the needs of associate degree level health, profession programs. A laboratory component is required (CHEM-111).

**Credit Hours: 3**

## Course Descriptions

### CHEM-111 FUNDAMENTALS OF CHEMISTRY LAB

**Pre-requisites:** ACT English score 18 or higher or ENG 101 or ENGL 095 with a C or better, ACT Math admission level scores

**Co-requisites:** ENGL 101, CHEM 110

Corresponding lab course for CHEM 110.

**Credit Hours: 1**

## CIET

### Civil Engineering Technology

#### CIET-114 STATICS <sup>(GEC 4)</sup>

**Co-requisites:** MATH 113 and MATH 114

Study of the fundamental principles of mechanics of rigid bodies and the application of these principles to engineering problems.

**Credit Hours: 3**

#### CIET-115 STRENGTH OF MATERIALS

**Co-requisites:** CIET 114

This course includes fundamental stress and strain relationships, torsion, shear and bending moments, stress and deflections in beams and columns, and combined stresses. Laboratory experience relates classroom theory through experiments involving tension, compression, and shear.

**Credit Hours: 3**

#### CIET-131 CONSTRUCTION MATERIALS

A study of the properties of a wide range of construction materials including aggregates, concrete, bituminous materials, steel, nonferrous metals, wood and masonry. Simple material estimates are also included. Standard lab tests are conducted with concentration on aggregates and concrete. The course is supplemented with field trips to batch plants, quarries and/or other relevant sites.

**Credit Hours: 3**

#### CIET-132 HIGHWAY MATERIALS

A study of the properties of a wide range of materials used in highway construction and additional construction materials. Topics include aggregates, concremented bituminous materials, steel, nonferrous metals, wood and masonry. Simple material estimates are also included

**Credit Hours: 2**

#### CIET-133 HIGHWAY MATERIALS LAB **CO-requisites:** CIET 1325

Laboratory testing to support material properties presented in CIET 132; tests are conducted with a concentration on aggregates and concrete; lab and site visits also supplement course

**Credit Hours: 1**

### CIET-141 SURVEYING ME

**Co-requisites:** *MATH 113, MATH 114, DRFT 120 or instructor permission*

Fundamental concepts of surveying and the acquisition of the data necessary for civil engineering projects. Topics include note keeping, measurement of distances, angles, and elevations; azimuth and bearing calculations; field traversing and traverse calculations and methods of topographic mapping. Use of appropriate equipment is emphasized in field labs. Use of current computer software is employed where appropriate.

**Credit Hours: 3**

### CIET-145 SURVEYING II

**Pre-requisites:** *CIET 141*

The application of surveying principles in the construction of engineering works. Topics include profiles and cross-sections; construction surveys and earthwork computations; calculations involving circular and parabolic curves; geodetic and state plane coordinates; total station surveys and introduction to GPS. In the field labs, appropriate equipment and techniques are employed in the performance of control and location surveys. This subject makes extensive use of current surveying computer packages and integration with other relevant software.

**Credit Hours: 3**

### CIET-199 FRESHMAN PROJECTS

**Pre-requisites:** *Consent of the advisor*

To provide for supervised independent study or projects in Civil Engineering Technology for students in the freshman year.

**Credit Hours: 1-3**

### CIET-215 STRUCTURAL STEEL DESIGN

**Co-requisites:** *CIET 115*

A practical study of the analysis and design of steel structural members used in the construction of highways, buildings, and industrial facilities including simple beams, columns, and connections.

**Credit Hours: 3**

### CIET-216 STRUCTURAL CONCRETE DESIGN

**Co-requisites:** *CIET 115*

Practical study of the analysis and design of elementary reinforced concrete structural members, including beams, floor systems, columns, footings, and retaining walls

**Credit Hours: 3**

### CIET-222 SOILS AND FOUNDATIONS

**Co-requisites:** *CIET 115*

Origin, composition, classification of soils; fundamental soil properties and stresses in soils. Subsurface exploration. Introduction to foundation design and construction of earth structures. Field and laboratory testing.

**Credit Hours: 3**

## Course Descriptions

### CIET-230 HYDRAULICS AND DRAINAGE

**Pre-requisites:** *PHYS 101 or permission of instructor.*

Principles of hydrostatics; fundamental concepts of fluid flow in pipes and open channels; methods of estimating storm water runoff; sizing of culverts, storm and sanitary sewers, and open channels. Laboratory experience relates classroom theory through experiments and/or hydraulic computer software.

**Credit Hours: 3**

### CIET-245 HIGHWAYS

**Pre-requisites:** *CIET 145, CIET 230 or permission of instructor*

**Co-requisites:** *CIET 222 or permission of instructor*

Highway planning and design including the study of surveys and plans. Topics include design characteristics and standards, surveying and mapping, geometric design, pavements, earthwork, drainage, safety and environmental considerations.

**Credit Hours: 3**

### CIET-299 SOPHMORE PROJECTS

**Pre-requisites:** *Consent of advisor*

To provide for supervised independent study or projects in Civil Engineering Technology for students in the sophomore year.

**Credit Hours: 1-3**

## COMM

### Communications

#### COMM-100 ORAL COMMUNICATION (GEC 1)

This course is designed to develop the student's skill in the organization of ideas for oral expression and presentation. Topics covered include interpersonal communication, intrapersonal communication, small group communication and effective public speaking. Particular emphasis will be placed on self-awareness, professional presentations, team building, effective listening skills, and finding/crediting source material.

**Credit Hours: 3**

## CMGT

### Construction Management

#### CMGT- 109 INTRODUCTION TO CONSTRUCTION MANAGEMENT

Examines construction project management and provided an introduction to estimating, scheduling and project control. Topics include conceptual and assemblies estimating, activity durations, network calculations, cost, schedule and resource control and project updating.

**Credit Hours: 3**

## Course Descriptions

### CMGT- 208 CONSTRUCTION SCHEDULING

Covers project management scheduling and features a combination of principles/fundamentals of scheduling and project management along with practical applications and tutorials of the 4 most common scheduling software programs—Microsoft Project, Primavera Project Planner (P3), SureTrak, P6 Project Manager and Contractor.

**Credit Hours: 3**

### CMGT- 215 PROJECT DELIVERY

**Pre-requisites:** *Permission of Instructor*

This course examines the construction process. Topics include the stake holders and participants, facility life cycle, codes, regulations and standards, project design, project planning, project delivery, design documents, and facility management. Capstone.

**Credit Hours: 3**

### CMGT- 223 CONSTRUCTION ESTIMATING

**Pre-requisites:** *Permission of Instructor*

Covers estimating practices used in the construction industry including how to develop estimates and a guide to information on drawings and in specifications. Building Information Modeling (BIM) is discussed as it relates to estimating. The content is organized around the CSI MasterFormat" 2011. Sage Timberline Estimating software is utilized.

**Credit Hours: 3**

## CRJU

### Criminal Justice

#### CRJU-101 INTRODUCTION TO CRIMINAL JUSTICE

A course designed to introduce the student to the study of crime, society, reaction to crime, the organization and function of various components of the criminal justice system; law enforcement, the courts and corrections.

**Credit Hours: 3**

#### CRJU-141 INTRODUCTION TO HOMELAND SECURITY

**Pre-requisites:** *TSA Employees Only*

This course will introduce students to the vocabulary and important components of homeland security. Topics to be covered include the importance of associated agencies and their interrelated duties and relationships; events impacting homeland security, state, national, and international laws, and the most critical threats confronting homeland security.

**Credit Hours: 3**



### CRJU-142 INTELLIGENCE ANALYSIS AND SECURITY MANAGEMENT

**Pre-requisites:** *TSA Employees Only*

This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters and natural disasters. It also explores vulnerabilities of our national defense and private sectors. Students will discuss substantive issues regarding intelligence support of homeland security measures implemented by the US and explore how the intelligence community operates.

**Credit Hours: 3**

### CRJU-143 TRANSPORTATION AND BORDER SECURITY

**Pre-requisites:** *TSA Employees Only*

This course provides an in-depth view of modern border and transportation security. Specific topics of study will include security for ships and seaports; aircraft and airports; trains; ground transportation and their related terminals; commercial trucking; pipelines and power transmission; bridges and tunnels; and major border crossing control points. Existing and emergent technologies needed to detect terrorists, their weapons and inherent vulnerabilities in infrastructure will be a special emphasis in the course, along with discussion of the legal, economic, political and cultural aspects of transportation safety and border security.

**Credit Hours: 3**

### CRJU-200 CRIMINAL JUSTICE INTERNSHIP OPTIONAL ELECTIVE

**Pre-requisites:** *Permission of Program Coordinator*

This course is designed to provide practical practicum experience to students in a criminal justice agency. 120 clock hours of experience is required. Optional elective.

**Credit Hours: 3**

### CRJU-201 INTRODUCTION TO FORENSIC SCIENCE

**Pre-requisites:** *Permission of Program Coordinator*

This course covers the scientific aspects of criminal investigation. It focuses on physical evidence, fingerprints, the application of forensic science, the collection, examination and preservation of evidence. The student will learn the capabilities of the advanced police science laboratory in the study of firearms, hair, fibers, blood, paint, tools, poisons and other material

**Credit Hours: 3**

### CRJU-204 JUVENILE JUSTICE AND DELINQUENCY

A study of delinquent and criminal behavior issues among the lower, middle and upper social classes of youths and adolescents giving consideration to history, crime causation, treatment and prevention and court related programs. The course covers the proper handling and referral of juveniles. Juvenile court organization, issues related to operation of juvenile courts, procedures, detention, filing and enforcement of juvenile code. Juvenile drug addition, mental illness, neglect, dependency cases and habitual offenders are discussed.

**Credit Hours: 3**

## Course Descriptions

### CRJU-207 CRIMINAL LAW

**Pre-requisites:** *CRJU 101*

This course examines criminal, correctional, constitutional and procedural law. The basic constitutional rights applicable to those involved in the criminal justice system from arrest to incarceration are discussed. The development of public policy and the administration of criminal justice and the legal principles for determining criminal and civil liability are studied.

**Credit Hours: 3**

### CRJU-208 ETHICS IN CRIMINAL JUSTICE <sup>(GEC 3)</sup>

**Pre-requisites:** *CRJU 101*

This course provides a survey of the various ethical systems, and focuses on the ethical issues, problem and dilemmas encountered by professionals in the field of criminal justice, the recognition of moral issues and the development of moral imagination. Corruption, brutality and morality are discussed.

**Credit Hours: 3**

### CRJU-211 DRUGS AND SOCIETY

This course is designed to deal with the use and abuse of drugs and alcohol, both legal and illegal. The etiology, social phenomena, psychological and physiological effects, and the current modes of treatment within the criminal justice setting will be examined. Particular attention will be paid to how the above issues are dealt with in the correctional system (both institution and community) and police departments.

**Credit Hours: 3**

### CRJU-212 COMMUNITY CORRECTIONS

**Pre-requisites:** *CRJU 101*

This course provides the student with an understanding of the evolution of the US correctional system. It gives a survey of the historical development of alternative approaches to incarceration from early correctional procedure through modern approaches. Specific emphasis is on the antecedents of modern correctional procedures, administration, and alternatives to incarceration in the state of WV. This course introduces the student to sentencing systems, diversionary programs, and the roles of those who monitor offenders who in community-based programs.

**Credit Hours: 3**

### CRJU-213 RACE AND GENDER IN CRIMINAL JUSTICE <sup>(GEC 3)</sup>

This course introduces race and gender issues from the perspectives of offenders, victims and professionals who work in the criminal justice system. Theoretical perspectives, as they apply to gender and racial issues, are explored.

**Credit Hours: 3**

### CRJU-223 POLICE AND SOCIETY

**Pre-requisites:** *CRJU 101*

This course is a study of law enforcement from an operational perspective. Law enforcement functions such as patrol, communications, investigations, traffic, special operations and other line staff functions are reviewed. Officer safety and duty-related stressors are also examined.

**Credit Hours: 3**

### CRJU-224 PUNISHMENT AND CORRECTIONS

**Pre-requisites:** *CRJU 101*

This course is a survey of criminal offenders and their environment. Material is presented describing the types and amount of crime in the US. Characteristics such as age, race, gender and class of offender types are discussed. The interaction between society, the criminal justice system and the offender is examined. The current correctional practices that focus on the goals, organization, functions and operations of state, county and local correctional systems are examined. Theories on causation are analyzed.

**Credit Hours: 3**

### CRJU-225 VICTIMOLOGY

This course is an examination of the history and philosophy of treatment, the structure of the correctional system and the legal basis for treatment. Consideration is given to the history of corrections and how that history has shaped treatment approaches. This course focuses on treatment modalities presently being used in working with offenders, issues of public safety, security and raises questions of whether treatment methods are effective.

**Credit Hours: 3**

### CRJU-226 COURT SYSTEMS IN THE US

This course will provide students with a working knowledge of the major structures and basic legal concepts that underlie the court system in the US. The structure of the courts, the nature of the criminal law they apply, and the procedures followed by them will be examined, in addition to the history and development of our court systems and the goals they seek to achieve will be examined. Local, state and federal court systems will be discussed. **Credit Hours: 3**

### CRJU-230 CRIMINOLOGY

**Pre-requisites:** *CRJU 101*

This course involves the basic study of the nature and peculiarities of human behavior and its direct relationship to crime and delinquency.

**Credit Hours: 3**

### CRJU-262 CONTEMPORARY ISSUES IN CRIMINAL JUSTICE

**Pre-requisites:** *CRJU 101 and permission of Program Coordinator*

This course provides the student with an understanding of the organization and administration of criminal justice system agencies. Topics covered include the primary components of criminal justice and their responsibilities, functions and activities, planning and research, public relations, personnel training inspection and control, and policy formulation in criminal justice system agencies. This course will include job seeking and interview skills and serve as the CRJU capstone course with an end of program exam.

**Credit Hours: 3**

## Course Descriptions

### CRJU-280 CRIMINAL PROCEDURE

**Pre-requisites:** *CRJU 101*

This is a study of the scope, purpose and principles of criminal law, analysis of crime and offenses and the mechanics of criminal justice procedures in the US and WV, as they apply to search and seizure and investigations. Also considered is the evaluation of evidence and proof with regards to kind, degree, admissibility, competence and weight. This course emphasizes rules of evidence at the operational level of law enforcement.

**Credit Hours: 3**

## CSCT

### Information Technology

### CSCT-100 INTRODUCTION TO COMPUTER & OFFICE APPLICATIONS

**Pre-requisites:**

**Credit Hours:**

### CSCT-101 INTRODUCTION TO PROGRAMMING

**Pre-requisites:** *MATH 115*

This course introduces the student to the basic control structures, data types, and algorithms in programming.

**Credit Hours: 3**

### CSCT-103 CREATIVE AND CRITICAL THINKING <sup>(GEC 4)</sup>

This course is designed to guide the student through a variety of thought and hands-on exercises that will challenge the student and introduce them to new knowledge, tools, and experiences useful in problem solving and idea generation.

**Credit Hours: 3**

### CSCT-104 TECHNICAL APPLICATIONS FOR SPREADSHEETS AND DATABASES

This course is designed to teach students how to use Microsoft Office applications to solve problems, interpret data, and present that data in ways that will be best suited for those in technical fields of study.

**Credit Hours: 3**

### CSCT-120 COMPUTER GRAPHICS - ILLUSTRATOR

The course covers the use of Adobe Illustrator to create and use vector graphics. Students learn to create and draw shapes, lines text; import graphics and pictures; and to use these features to create web pages.

**Credit Hours: 3**

### CSCT-122 COMPUTER GRAPHICS - INDESIGN

This graphics course focuses on desktop publishing using Adobe InDesign. This course teaches students to create print layouts, multimedia content, interactive PDF documents, posters, fliers, brochures, magazines and books. Students will also learn to work with text and set up a document, work with frames, colors, place and link graphics, create graphics, work with transparency, work with tools and tables, prepare, package and export documents.

**Credit Hours: 3**

### CSCT-124 COMPUTER GRAPHICS - PHOTOSHOP

This graphics design course focuses on digital photo and image editing using Adobe Photoshop. Students will learn to work with photos, downloaded icons or scanned artwork and edit these images by modifying size and scale, changing image compression and putting one image within another. Students will also learn to create icons, buttons, lines and text art.

**Credit Hours: 3**

### CSCT-130 INTRODUCTION TO WEB DESIGN

This course will take an in depth look at web design concepts and techniques. It will examine theoretical concepts that make the world of Web design unique. Also, this course will adopt a practical hands-on approach when examining Web development techniques. Along with examining different coding strategies, this course will explore the advancement of Web site implementation, as well as, timeless problem solving strategies.

**Credit Hours: 2**

### CSCT-131 CONTENT MANAGEMENT SYSTEMS

This course will show students how to use server space, FTP programs, and Content Management Systems (CMS) to put together web sites. It is designed to complement CSCT 130 but it is also suited for Digital Design students. Other students with experience in Web Design or Digital Design may also take the course for more experience using CMS.

**Credit Hours: 1**

### CSCT-150 SURVEY OF GAMING

This course is an overview of gaming throughout history. Topics will start with games in ancient history and end with gaming in the modern computer age.

**Credit Hours: 1**

### CSCT-152 GAME DESIGN I

**Co-requisites:** CSCT 101 & 130

This course is intended to teach students how to create games using Game Maker Studio. Game Maker Studio allows you to create games using HTML5 and export to a variety of platforms including mobile devices. **Credit Hours: 3**

### CSCT-210 FUNDAMENTALS OF OPERATING SYSTEMS

This course is an introduction to the organization, implementation, and administration of computer operating systems.

**Credit Hours: 3**

### CSCT-212 ALGORITHMS

**Pre-requisites:** CSCT 101

Basic paradigms for the design and analysis of efficient algorithms: recursive algorithms, sorting and searching, divide-and-conquer, hashing, reductions, and the use of randomness.

**Credit Hours: 3**

## Course Descriptions

### CSCT-218 SCRIPTING (POWERSHELL)

This course introduces the student to the power of the PowerShell scripting programming language. Students will learn how to interact with the Windows PowerShell command line to provide secure administration of Windows operating Systems.

**Credit Hours: 3**

### CSCT-219 PROJECT MANAGEMENT

**Pre-requisites:** *Programming Language Elective*

This course covers the topics necessary to achieve quality project management. Topics include project integration, scope, time, cost, quality and HR management along with risk and procurement. This course is the capstone course for Information Technology majors

**Credit Hours: 3**

### CSCT-230 INTERMEDIATE WEB DESIGN

**Pre-requisites:** *CSCT 130*

This course builds upon the skills learned in Intro to Web Design by asking students to use them in a group environment for a long term project. Topics of user needs and requirements will be discussed while exploring content management systems.

**Credit Hours: 3**

### CSCT-232 MOBILE APPLICATION DEVELOPMENT I

**Pre-requisites:** *CSCT 101, CSCT 130*

This course is an introduction to programming for iOS, Android, and mobile web development.

**Credit Hours: 3**

### CSCT-234 JAVASCRIPT I

**Pre-requisites:** *CSCT 101, CSCT 130*

This course uses JavaScript, an interpreted web programming language with object-oriented capabilities. The student will learn how to program in JavaScript and how to efficiently use it in web development. By the end of the course, the student will be able to design and code feature-rich dynamic web pages using JavaScript.

**Credit Hours: 3**

### CSCT-237 PHP PROGRAMMING I

**Pre-requisites:** *CSCT 101, CSCT 130, Enrollment in or previous completion of CIT 230 recommended.*

This course will teach the student the basics of PHP programming. Students will learn to build web pages containing dynamic content through use of PHP scripting and database querying. Also covered in this course is basic HTML and SQL.

**Credit Hours: 3**

### CSCT-238 ASP .NET I

**Pre-requisites:** *CSCT 101, CSCT 130, Enrollment in or previous completion of CIT 230 recommended.*

This course will explore Web Programming using ASP .NET and how to create and maintain interactive and dynamic Web applications using object-oriented programming.

**Credit Hours: 3**

## Course Descriptions

### CSCT-244 DATA COMMUNICATIONS AND NETWORKING

**Pre-requisites:** *CSCT 101*

This course is an introduction to the theories, terminology, equipment, and distribution media associated with data communications and networking.

**Credit Hours: 3**

### CSCT-260 VISUAL BASIC .NET I

**Pre-requisites:** *CSCT 101*

**Co-requisites:** *CSCT 101*

This course introduces students to the standard visual basic forms, controls, and event procedures. Students will be heavily exposed to the object-oriented programming paradigm.

**Credit Hours: 3**

### CSCT-262 C# PROGRAMMING ME

**Pre-requisites:** *CSCT 101*

The course introduces students to the standard C# forms, controls, and event procedures. Sequential and random access file handling, database access, web forms, and general language structure and syntax will be explored.

**Credit Hours: 3**

### CSCT-264 PYTHON I

**Pre-requisites:** *CSCT 101*

This course introduces the student to the Python programming language. Students will learn how to implement all the basic programming constructs as well as perform rudimentary graphics manipulation. The student will conceive, design and implement a project by the end of the class.

**Credit Hours: 3**

### CSCT-266 C++ PROGRAMMING I

**Pre-requisites:** *CSCT 101*

This course presents a comprehensive introduction to the C++ programming language. Students will write programs using most of the standard language constructs.

**Credit Hours: 3**

### CSCT-268 JAVA I

**Pre-requisites:** *CSCT 101*

This course introduces students to the JAVA programming language. This object-oriented language is popular for developing secure, platform independent applications and is often the language of choice for internet applications.

**Credit Hours: 3**

### CSCT-270 VISUAL BASIC .NET II

**Pre-requisites:** *CSCT 260*

This course covers advanced topics in Visual Basic .NET.

**Credit Hours: 3**



## Course Descriptions

### CSCT-282 SYSTEMS ANALYSIS & DESIGN

**Pre-requisites:** *CSCT 280 and a Programming Language course*

This course covers all phases of the systems development life cycle (SLDC): feasibility, analysis, design and implementation. Students will learn to use project management and economic analysis tools as part of the development process. A case study approach will be used throughout the course. This course will serve as the capstone course for Computer Science majors and should be taken in the student's final semester.

**Credit Hours: 3**

### CSCT-290 COMPUTER SCIENCE CAPSTONE

This course is the capstone course for all CSCT majors. The student will design a final project that will demonstrate what they have learned in their time here. The student will meet with the professor on a weekly basis to discuss the progress of their project and will present their project to a small panel of instructors at the end of the class.

**Credit Hours: 3**

## DENT

### Dental Hygiene

#### DENT-125 DENTAL EMBRYOLOGY, HISTOLOGY & ANATOMY

**Co-requisites:** *DENT 132, 141, 152; BIOL 210; CHEM 110, 111*

Introduction to the clinical, developmental and microscopic structures of the face and oral cavity; detailed study of primary and permanent dentitions including crown and root morphology, numbering systems and eruption patterns.

**Credit Hours: 3**

#### DENT-126 HEAD & NECK ANATOMY

**Pre-requisites:** *DENT-125, 132, 141, 152; BIOL 210; CHEM 110, 111*

**Co-requisites:** *DENT-134, 144, 151, 153, 156; BIOL 230, 231*

A detailed study of the intraoral and extraoral structures of the head and neck region. Systems include skeletal, muscular, cardiovascular, nervous, glandular, lymphatics and anatomy of local anesthesia.

**Credit Hours: 2**

#### DENT-132 DENTAL HYGIENE I

**Co-requisites:** *DENT-125, 141, 152; BIOL-210; CHEM-110,111*

Introduction to the role and responsibilities of the dental hygienist in preventive dentistry and clinical practice; didactic laboratory and clinical hours are devoted to development of basic skills of assessment, treatment and evaluation. Prevention of disease transmission and medical emergency prevention and management is included. Meets freshman seminar objectives.

**Credit Hours: 5**

#### DENT-134 DENTAL HYGIENE CLINIC II

**Pre-requisites:** *DENT-125, 132, 141, 152; BIOL 210; CHEM 110,111*

**Co-requisites:** *DENT-126, 144, 151, 153, 156; BIOL 230, 231*

Nine hours of clinical practice per week with concentration on developing basic patient treatment and assessment skills.

**Credit Hours: 3**

## Course Descriptions

### DENT-141 RADIOLOGY

**Co-requisites:** *DENT-125, 132, 152; BIOL-210; CHEM 110,111*

A study of the history, basic principles, biological effects, landmarks and interpretation and the role of radiographs in dental hygiene and dental care. Laboratory component will include instruction on intraoral and extra oral projections using digital radiographic processes.

**Credit Hours: 2**

### DENT-144 PERIODONTICS I

**Pre-requisites:** *DENT-125,132,141,152; BIOL-210; CHEM 110, 111*

**Co-requisites:** *DENT-126, 134, 151, 153, 156, BIOL-230, 231*

A study of periodontal disease and associated anatomy, etiology, and treatment modalities. Dental hygiene care planning for the periodontal patient is included.

**Credit Hours: 1**

### DENT-151 NUTRITION

**Pre-requisites:** *DENT-125,132,141,152; BIOL 210; CHEM 110, 111*

**Co-requisites:** *DENT-126,134,144,153,156; BIOL-230, 231*

A detailed study of nutrition as applied to general and oral health. Nutritional counseling and dietary evaluation will be included.

**Credit Hours: 2**

### DENT-152 PREVENTIVE CONCEPTS

**Co-requisites:** *DENT-125, 132, 141; BIOL-210; CHEM 110, 111*

A study of the etiologic factors and role of preventive strategies in periodontal and dental diseases.

**Credit Hours: 1**

### DENT-153 ADVANCED DENTAL HYGIENE PROCEDURES

**Pre-requisites:** *DENT-125,132,141,152; BIOL-210; CHEM 110,111*

**Co-requisites:** *DENT-126,134,144,151,156; BIOL-230, 231*

Continued study of dental hygiene clinical procedures utilized in the delivery of dental hygiene care. Topics include but are not limited to; air polishing, topical anesthesia/pain control, ultrasonic scaling advanced instrumentation, appliance care, implant maintenance, instrument sharpening and dental photography.

**Credit Hours: 1**

## Course Descriptions

### DENT-156 PHARMACOLOGY

**Pre-requisites:** *DENT-125, 132, 141, 152; BIOL 210; CHEM-110,111*

**Co-requisites:** DENT-126, 134, BIOL-230, 231

A study of the drugs used in and concerned with the practice of dentistry, their classification, usage, methods of administration, and toxicology.

**Credit Hours: 2**

### DENT-225 PATHOLOGY

**Pre-requisites:** *DENT-126, 134, 144, 151, 153, 156; BIOL-230, 231*

**Co-requisites:** DENT-246,256,235,237,251,260

A study of general and oral pathology as related to oral disease conditions and abnormalities of the head, neck and periodontium.

**Credit Hours: 2**

### DENT-235 PERIODONTICS II

**Pre-requisites:** *DENT-126, 134, 144, 151, 153, 156; BIOL-230, 231*

**Co-requisites:** DENT-246,256,225, 237, 251,260

An advanced study of periodontal disease etiology and pharmacological and surgical treatment modalities. The interaction of periodontal disease and systemic health will be emphasized.

**Credit Hours: 1**

### DENT-237 DENTAL HYGIENE CLINIC III

**Pre-requisites:** *DENT-126, 134, 144, 151, 153, 156; BIOL-230, 231*

**Co-requisites:** DENT-246,256,225,235,251,260

Twelve hours of clinical practice per week with concentration on strengthening clinical skills, with particular concentration on treatment of patients demonstrating moderate to advanced periodontal disease. Extramural clinical rotations at various area clinics/health care facilities are included.

**Credit Hours: 4**

### DENT-239 DENTAL HYGIENE CLINIC IV

**Pre-requisites:** *DENT-246,256,225,235,237,251*

**Co-requisites:** DENT-239,258,262

Fifteen hours of clinical practice per week with concentration on refining clinical skills, with particular concentration on total patient care and treatment of patients demonstrating moderate to advanced periodontal disease. Extramural clinical rotations at various area clinics/health care facilities.

**Credit Hours: 5**

### DENT-240 APPLIED CONCEPTS IN CLINICAL DENTAL HYGIENE

**Pre-requisites:** *DENT-246,256,225,235,237,251*

**Co-requisites:** DENT-239,258, 240, 262

A study of the expanded duties and topics expected of dental hygienist in today's dental practices.

**Credit Hours: 1**

## Course Descriptions

### DENT-246 DENTAL MATERIALS

**Pre-requisites:** DENT-126, 134, 144, 151,153,156; BIOL-230, 231

**Co-requisites:** DENT-256,225,235,237,251,260

A study of the general composition, properties and manipulation of dental materials as they apply to current dental and dental hygiene practice. Laboratory devoted to skill development in services delivered by dental hygienists.

**Credit Hours: 2**

### DENT-251 ANESTHESIA/PAIN CONTROL

**Pre-requisites:** DENT-126, 134, 144, 151,153,156; BIOL-230, 231

**Co-requisites:** DENT-246,256,225,235,237,260

A study of local anesthesia administration for the dental hygienist. Includes neurophysiology, pharmacology, armamentarium, complications, legal considerations and techniques for delivery of local anesthesia.

**Credit Hours: 2**

### DENT-256 DENTAL HYGIENE CARE PLANNING

**Pre-requisites:** DENT-126, 134, 144, 151,153,156; BIOL-230, 231

**Co-requisites:** DENT-246, 225, 235, 237, 251,260

A study of the dental hygiene process of care and care planning for the management of patients with special needs.

**Credit Hours: 2**

### DENT-258 ETHICS & PRACTICE MANAGEMENT <sup>(GEC 3)</sup>

**Pre-requisites:** DENT-246,256,225,235,237,251

**Co-requisites:** DENT-239,240,262

A study of the ethics and legal principles involved in dental hygiene practice and preparation for employment through resume' writing and interviewing. The course also provides a review of the role of the dental hygienist in practice management.

**Credit Hours: 2**

### DENT-260 DENTAL HEALTH EDUCATION

**Pre-requisites:** DENT-126,134,144,151,153,156; BIOL-230,231

**Co-requisites:** DENT-246,256,225,235,237,251

A study of the planning and implementation of dental health education with concentration on educational principles, methodologies and programs for specific populations.

**Credit Hours: 2**

### DENT-262 COMMUNITY HEALTH <sup>(GEC 4)</sup>

**Pre-requisites:** DENT-246,256,225,235,237,251

**Co-requisites:** DENT 239,240,258

A continuation of Dental Health Education emphasizing program planning, statistical analysis and application in community health settings. Programs are conducted in local schools and other area facilities.

**Credit Hours: 3**

### DENT-299 SPECIAL TOPICS IN-DENTAL HYGIENE

Independent study of topic(s) pertinent to the profession of dental hygiene or to dental hygiene practice.

## DESL

### Diesel Technology

#### DESL-112 THEORY & OPERATION

**Co-requisites:** ENGL 095

Fundamentals of operation and construction of two and four stroke diesel engines. All the engine components and support systems will be included.

**Credit Hours: 2**

#### DESL-113 DISASSEMBLY, INSPECTION, AND REASSEMBLY

**Pre-requisites:** Need to pass DESL 112 with a "C" or better.

Complete engine overhaul; lab work includes disassembly, cleaning, inspection, measuring and determining reusable parts. Use of OEM service procedures, specifications and torque values will be stressed.

**Credit Hours: 2**

#### DESL-114 VALVETRAIN COMPONENTS & OPERATION

**Pre-requisites:** DESL 112

Includes theory and operation of all valve train components and disassembly, inspection and reassembly of the cylinder head; lab includes operation of a valve grinding machine.

**Credit Hours: 2**

#### DESL-115 DIESEL ENGINE ACCESSORIES

**Pre-requisites:** DESL 113

Includes theory and operation of turbochargers, superchargers, hydro mechanical and electronic diesel fuel injection system operation plus troubleshooting, timing of injection pumps and tune-up procedures.

**Credit Hours: 2**

#### DESL-120 SUSPENSION & STEERING

Includes theory and operation of all valve train components and disassembly, inspection and reassembly of the cylinder head; lab includes operation of a valve grinding machine.

**Credit Hours: 3**

#### DESL-121 FUNDAMENTALS OF ELECTRICITY

Focuses on basic electrical theory, including Ohm's law, simple circuits, instrument reading, AC and DC current. There will be some basic math calculations.

**Credit Hours: 1**

## Course Descriptions

### DESL-122 ELECTRICAL PRODUCTION, STORAGE AND USAGE

**Pre-requisites:** *Need to pass DESL 121 with a "C" or better.*

Fundamentals of battery construction and usage; covers alternators, starters and capacitors.

**Credit Hours: 1**

### DESL-123 CHASSIS ELECTRICAL SYSTEMS

**Pre-requisites:** *Need to pass DESL 122 with a "C" or better.*

Use of electrical diagnostic service tools, troubleshooting, testing and repairing of chassis electrical systems. Use of electrical tools; wiring techniques.

**Credit Hours: 1**

### DESL-130 INTRODUCTION TO HYDRAULICS

Fundamental hydraulic principles through lecture/lab experiences by applying the laws of hydraulics, calculating force, pressure, and area and describing the function of pumps, valves, actuators, and motors, hydraulic conductors, and couplers. Students will learn the properties of hydraulic fluids, identify graphic symbols, and perform maintenance procedures on truck hydraulic systems.

**Credit Hours: 4**

### DESL-231 MANUAL TRANSMISSIONS

Basic operation of clutches; repair and maintenance of heavy duty manual transmissions.

**Credit Hours: 1**

### DESL-232 AUTOMATIC TRANSMISSIONS

Operation of automatic transmissions, torque converters and transfer cases.

**Credit Hours: 1**

### DESL-233 DIFFERENTIAL AND DRIVE AXLES

Students will disassemble, measure, and reassembly drive lines axles to factory specifications.

**Credit Hours: 1**

### DESL-240 AIR BRAKES

Operation and construction of medium duty truck air brake systems. Air brake components plus repair and maintenance procedures.

**Credit Hours: 2**

### DESL-241 HYDRAULIC BRAKES

Operation and construction of medium duty truck hydraulic brake systems. Hydraulic brake components plus repair and maintenance procedures.

**Credit Hours: 2**

### DESL-250 SYSTEM PREVENTATIVE MAINTENANCE

Service and preventive maintenance practices commonly found in the trucking industry as well as heavy equipment. Students will understand the benefits of a well-planned preventive maintenance program including pre-trip inspection, criteria for out-of-service tagging a vehicle and record keeping.

**Credit Hours: 1**

## Course Descriptions

### DESL-260 MOBILE AIR CONDITIONING SYSTEMS

Principles of air conditioning including purging, charging, leak testing, and performance testing.

**Credit Hours: 1**

### DESL-270 ADVANCED ELECTRONIC ENGINE CONTROLS

Electronic sensors and engine control units. Topics include how to use a laptop and handheld scanner to troubleshoot and diagnose electronic engine controls using the manufacturer's software.

**Credit Hours: 1**

### DESL-280 INTERNSHIP

**Pre-requisites:** *Permission of Department Chair*

Special assignment in industry to correlate with the diesel technology program. Students must have a designated industrial supervisor and faculty coordinator. Final approval will be granted by the student's department head.

**Credit Hours: 1-3**

### DESL-298 SENIOR SEMINAR

**Pre-requisites:** *Permission of Department Chair*

Capstone Course including certification exams.

**Credit Hours: 1**

### DESL-299 DIESEL TECHNOLOGY PROJECTS

**Pre-requisites:** *Permission of Department Chair*

Selected studies in Diesel Technology.

**Credit Hours: 1-3**

## DMSU

### Diagnostic Medical Sonography

#### DMSU-100 INTRODUCTION TO SONOGRAPHY

An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations, and the history of the profession.

**Credit Hours: 2**

#### DMSU-200 SONOGRAPHIC SECTIONAL ANATOMY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course presents a comprehensive study of cross sectional anatomy in modular format of the head, neck, abdomen, thorax, and pelvis. Students will explore in-depth the study of human anatomy in the different scan planes to include sagittal, coronal, transverse, and orthogonal sections essential to current techniques in diagnostic imaging. Pertinent pathologic processes that affect each of the area of the body will be discussed and identified using sectional imaging techniques. The student will have the opportunity to reinforce learning with hands-on scanning in the lab component of this class.

**Credit Hours: 3**

### DMSU-210 SONOGRAPHIC PATHOPHYSIOLOGY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course examines the disordered physiological processes associated with disease or injury and its application to sonography. Upon completion of the course, students will describe the basic mechanisms of disease and associated risk factors. Students will gain an understanding of how pathological processes are manifested, how they progress, and their primary and secondary effects. Students learn to differentiate pathologic organisms and inflammatory processes and utilize the appropriate terminology to describe disease states.

**Credit Hours: 2**

### DMSU-220 ABDOMINAL/ PELVIC SONOGRAPHY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course will review basic human anatomy and physiology of the aorta, portal system, liver, gallbladder, pancreas, gastrointestinal system, spleen, adrenals, and kidneys/bladder with emphasis on sonographic appearance of abdominal and pelvic viscera in accepted scan planes. Proper scan techniques and protocols are presented during the laboratory component of this course. Related diagnostic and laboratory testing, patient history, sonographic appearance and congenital anomalies are also covered. The use of sonography for interventional procedures and organ transplants will be explored as well. Sterile technique will be introduced. The student will have the opportunity to reinforce learning with hands-on scanning in the lab component of this class.

**Credit Hours: 5**

### DMSU-221 SUPERFICIAL/SMALL PARTS SONOGRAPHY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course presents the anatomy, physiology, structure and sonographic appearance related to the breast, neck, prostate, scrotum, musculoskeletal, pediatric hip, neonatal brain, and neonatal spine. Normal, congenital, and abnormal states will be explored. Invasive and intraoperative procedures associated with the breast and thyroid will be presented as well as sterile technique.

**Credit Hours: 1**



### DMSU-222 SONOGRAPHY OF OBSTETRICS AND GYNECOLOGY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course will present the anatomy, physiology, and congenital anomalies of the female pelvis. Normal female reproductive stages and structures and all three trimesters of pregnancy are also covered to include 1st, 2nd, and 3rd trimester fetal anatomy and extra-fetal assessment. Fetal biometry and routine ultrasound evaluation of the fetus is covered as well as safety and prudent use. The student is expected to have an understanding of fetal and placental circulation, high risk pregnancy, abnormalities, syndromes, and postpartum complications. Lectures and interactive learning activities include the importance of patient history, laboratory, and other clinical information. Performance standards and documentation will be reviewed. Interventional procedures will be introduced. The student will have the opportunity to reinforce learning with hands-on scanning in the lab component of this class.

**Credit Hours: 1**

### DMSU-230 ACOUSTICAL PHYSICS AND INSTRUMENTATION I

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course explains how the pulse-echo principle is used in sonography. Basic sound and ultrasound physics are covered, including frequency, wavelength, propagation speed, reflection, resolution, and artifacts. The components and function of the ultrasound transducers, equipment, displays, and instrumentation are explored. Learning activities promote understanding of image optimization, propagation principles, artifacts, and hemodynamics to include spectral and color-flow Doppler analysis. The interactive properties of ultrasound with human tissue will be discussed to include possible biological effects, safety, ALARA principles, and quality control. **Credit Hours: 3**

### DMSU-231 ACOUSTICAL PHYSICS AND INSTRUMENTATION II

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

In this course, lectures and related exercises continue the presentation of ultrasonic propagation principles, imaging artifacts, spectral Doppler, color-flow Doppler, and patient safety. Content will also include the interactive properties of ultrasound with human tissue, possible biologic effects, and various types of equipment, instrumentation, safety, ALARA principles, and quality control. After completion of this course students will be expected to take the national certification exam for physics (ARDMS-SPI exam).

**Credit Hours: 1**

### DMSU-240 INTRODUCTION TO VASCULAR TECHNOLOGY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course focuses on the principles of the vascular physical examination, proper instrumentation and protocol for venous and arterial evaluation to include anatomy, hemodynamics, patient history, clinical manifestations, non-invasive techniques, and interpretation. The student will have the opportunity to reinforce learning with hands-on scanning in the lab component of this class.

**Credit Hours: 2**

### DMSU-241 VASCULAR TECHNOLOGY

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course continues with lectures and interactive learning activities related to carotid and peripheral vascular, arterial, and venous Doppler, as well as vascular physical principles and instrumentation. Anatomy, hemodynamics, patient history, clinical indications, non-invasive techniques, interpretation, and pathophysiology will be discussed. The students will have the opportunity to reinforce learning through hands-on activities as well as scanning in the lab component of this class.

**Credit Hours: 4**

### DMSU-250 SONOGRAPHY PRACTICUM I

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course provides observation of all clinical duties performed in the ultrasound department, as well as basic instruction and scanning experience in abdominal, obstetrical, gynecological, small parts, vascular and/or other aspects of sonography such as interventional procedures and surgical cases. Attendance at an assigned clinical affiliate for 24 hours per week is required.

**Credit Hours: 6**

### DMSU-251 SONOGRAPHY PRACTICUM II

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course provides observation of all clinical duties performed in the ultrasound department, as well as instruction and scanning experience in abdominal, obstetrical, gynecological, vascular, small parts, breast, musculoskeletal, neonatal, and/or other aspects of general and vascular sonography. Attendance at an assigned clinical affiliate for 24 hours weekly is required. The student will refine scanning skills and gain experience. The student will strive for continued improvement in the work setting experience to increase scanning ability, equipment manipulation, and patient interaction. During Sonography Practicum II, students will be assigned clinical competencies and objectives to complete. After completion of required clinical hours, the student is strongly encouraged to prepare for the national registry examinations after meeting the test prerequisite.

**Credit Hours: 6**

## Course Descriptions

### DMSU-252 SONOGRAPHY PRACTICUM III

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course provides observation of all clinical duties performed in the ultrasound department, as well as instruction and scanning experience in abdominal, obstetrical, gynecological, vascular, small parts, breast, musculoskeletal, neonatal, and/or other aspects of general and vascular sonography. Attendance at an assigned clinical affiliate for 24 hours weekly is required. The student will refine scanning skills and gain experience. The student will strive for continued improvement in the work setting experience to increase scanning ability, equipment manipulation, and patient interaction. During Sonography Practicum III, students will be assigned clinical competencies and objectives to complete. After completion of required clinical hours, the student is strongly encouraged to prepare for the national registry examinations after meeting the test prerequisite.

**Credit Hours: 6**

### DMSU-260 ADVANCED DIAGNOSTIC STUDIES (GEC 4)

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course presents advanced study of the clinical applications of sonography for multiple specialties to include abdominal, obstetrical, gynecological, vascular, small parts, breast, musculoskeletal, neonatal, and/or other aspects of general and vascular sonography. Image analysis, pathology, clinical manifestations, related diagnostic procedures, exam protocols, common and rare disease states will be reviewed. The student will have the opportunity to reinforce learning with hands-on scanning in the lab component of this class.

**Credit Hours: 6**

### DMSU-261 ADVANCED ULTRASOUND REVIEW (CAPSTONE)

**Pre-requisites:** *Acceptance into the DMS program; English Composition I, College Algebra, Human Anatomy & Lab, Human Physiology & Lab, Introduction to General Physics, Introduction to Sonography, general Psychology/Lifespan\* (\* May be taken after admission into the sonography program)*

This course prepares the student to transition from student to employee. The focus is on preparation and review for national board exams for sonography credentials. A variety of topics will be researched and discussed to provide current insight into the future of the profession, resume and interview skills, career opportunities, healthcare issues, and mechanisms for life-long learning.

**Credit Hours: 2**

## DRFT

### Drafting and Design Engineering Technology

#### DRFT-120 DRAFTING I

Fundamentals of drafting through the use of sketching and computer graphics as applied to orthographic views, sectional views, isometric views, and threads and fasteners. Student must possess skills using a computer and basic file management.

**Credit Hours: 2**

## Course Descriptions

### DRFT-121 DRAFTING II

**Pre-requisites:** *DRFT-120*

Continuation of Drafting I to include auxiliary views, working drawings, and tolerancing; basic descriptive geometry; and mapping. Also covers computer graphics, at a more advanced level than the basics covered in Drafting I. **Credit Hours: 2**

### DRFT-201 ELECTRICAL & ELECTRONIC DRAFTING

**Pre-requisites:** *DRFT-120*

Introduction to the methods used to produce technical drawings required by industry. Topics include block diagrams, control drawings, logic diagrams, schematic diagrams, printed circuit board drawings, integrated circuit drawings, ladder diagrams, and interconnecting diagrams. Interaction and coordination of projects with ECET courses is encouraged with permission of instructor.

**Credit Hours: 2**

### DRFT 202 ARCHITECTURAL DRAFTING

**Pre-requisites:** *DRFT-121 or permission of instructor*

Functional planning and design of residences and allied structures; experiences in designing, drawing, calculation costs, and preparing specifications and presentation drawings. Concentration on construction drawings and details using current methods and software.

**Credit Hours: 3**

### DRFT-204 STRUCTURAL DRAFTING

**Pre-requisites:** *DRFT-121 or permission of instructor*

**Co-requisites:** *CIET 115*

Techniques in preparing design and working drawings for various structures in wood, concrete, and steel. Drawings will be produced using AutoCAD. Neatness and ability to make systematic computations emphasized. Interaction and coordination of projects with CIET courses is encouraged with permission of instructor.

**Credit Hours: 3**

### DRFT 212 PIPING & SHEET METAL DRAFTING

**Pre-requisites:** *DRFT-121*

Design, layout and graphical treatment of piping systems. Concentration on standard symbols and nomenclature and schematic, pictorial, multiview representation. Design and layout of patterns for fabrication from sheet materials. Concentration on theory or developments, sheet materials, forming processes, and use of standard forming tables.

**Credit Hours: 3**

### DRFT 214 COMPUTER GRAPHICS

**Pre-requisites:** *DRFT-120*

**Co-requisites:** *DRFT 121 or permission of instructor*

Teaches use of the two and three dimensional graphics capability of capability of the microcomputer, using industrial CAD software. An in-depth review of CAD software including AutoCAD by Autodesk.

**Credit Hours: 3**

### DRFT-215 ADVANCED COMPUTER-AIDED DRAFTING

**Pre-requisites:** *DRFT-214*

**Co-requisites:** *DRFT-286 or permission of instructor*

Continues the development of skills in the use of computer graphics. It utilizes all skills learned in DRFT 214 and further develops them by exposing students to more powerful software and equipment. Concentrates on Autodesk's 3D and solid modeling applications to include wire frame modeling, surface modeling, region modeling, as well as cloud computing.

**Credit Hours: 3**

### DRFT 216 ENGINEERING DESIGN GRAPHICS

**Pre-requisites:** *DRFT-121, MEET-121, MATH-113, DRFT 202, PHYS 101*

**Co-requisites:** *PHYS 102 or consent of department chair*

A multi-stage design process is used to find graphic solutions to various technical problems; includes sections, dimensioning, tolerancing, screw nomenclature, gears, cams and skills leading to the implementation of functional design solutions. This capstone course includes activities involving communications skills, preparing for the job market, and assessment of program outcome attainment.

**Credit Hours: 3**

### DRFT-284 MICROSTATIONS

**Pre-requisites:** *DRFT-214 or permission of instructor*

Introduces the student to the basic operation of Microstation CAD software. Some comparisons to AutoCAD will be made. Included in this course are loading existing design files; new design file creation and setup; construction and modification within design files; cell library concepts; dimensioning; and plotting.

**Credit Hours: 3**

### DRFT-285 LAND & TOPOGRAPHIC DESIGN

**Pre-requisites:** *DRFT-214 or permission of instructor*

Introduces various topographic-related drawings and design principles utilizing specialized design software intended for this purpose. Concentration is placed on conventions and practices that are used by CAD professionals working in the civil, surveying, and mapping fields.

**Credit Hours: 3**

### DRFT 286 PARAMETRIC MODELING <sup>(GEC 4)</sup>

**Pre-requisites:** *DRFT-214 or permission of instructor*

The creation of three-dimensional parametric models is used in the design process to develop solutions to design problems. Specialized design software is used to create designs and perform various analytical functions on them. Creation of engineering drawings from parametric models; assembly of components to make adaptive assemblies; and generation of presentation files for technical illustrations are studied.

**Credit Hours: 3**

### DRFT-287 PDMS

**Pre-requisites:** *DRFT 214, DRFT 121*

This course is designed to familiarize students with 3-D plant design software modeling using Piping/Process Instrumentation Diagrams and converting them into a graphical database environment using an advanced design and management software, PDMS by AVEVA.

**Credit Hours: 3**

## Course Descriptions

### DRFT 288 SURVCAD

*Pre-requisites: DRFT-214 or permission of instructor*

This course will introduce the student to the operation of Carlson's SurvCAD software. Included in this course are drawing problems related to topographic, civil and mining applications. Fundamental of operating a CAD system are needed prior to taking this course.

**Credit Hours: 3**

### DRFT-289 GPS/GIS SYSTEMS

*Pre-requisites: DRFT-214 or permission of instructor*

This course will cover the basics of GPS types and uses, and the basics of a GIS system. The student will learn to differentiate the differences and benefits of each of the systems and how to merge their use into a more powerful and modern-day tool for information tracking and analysis. A project will be done in a group setting to utilize the introductory topics covered for hands-on relation to their surroundings.

**Credit Hours: 3**

### DRFT-290 INTERNSHIP IN CAD

*Pre-requisites: Permission of Department Chair*

Industry CAD work supervised by an industry representative. Work must be closely monitored by a department faculty and of a relevant nature to reflect the kind of work an entry level CAD operation would experience. Toward the end of the internship, the work will be evaluated by multiple tools, including a report completed by the student and another by the industry representative.

**Credit Hours: 1-3 depending on hours worked**

### DRFT-291 ADVANCED PDMS

*Pre-requisites: DRFT 291 or permission of instructor*

This course is a continuation of DRFT 287-PDMS. The course involves working in teams to solve design problems and utilizing the advanced design and management software, PDMS by AVEVA.

**Credit Hours: 3**

### DRFT-299 DRAFTING & DESIGN PROJECTS

*Pre-requisites: Permission of Department Chair*

Select studies in Computerized Drafting and Design Engineering Technology.

**Credit Hours: 1-3 depending on hours worked**

## DSGN

### Graphic Design and Print Communications

#### DSGN-111 INTRODUCTION TO GRAPHIC COMMUNICATIONS

**Pre-requisite(s):** ACT English score of 18 or higher or ENGL-101 or ENGL 095 with a C or better

The study of the history of printing, current aspects of the industry, and career opportunities. Comparison of lithographic, flexographic, gravure, screen printing, ink-jet, toner-based, on-demand printing, variable data printing, and electronic image reproduction processes. Lab projects and demonstrations including basic typography, layout and design, page makeup, image creation, plate making, printing and finishing operations, and image and document conversion for electronic media.

**Credit Hours: 3**

### DSGN-112 INK AND SUBSTRATES

Investigating paper manufacturing, properties and terminology, as well as paper cutting practices, paper finishes and pricing; a study of ink manufacturing, components and characteristics; Lab devoted to testing methods for papers and inks.

**Credit Hours: 3**

### DSGN-113 INTRO. TO GRAPHIC DESIGN

An introduction to graphic design principles and practices. Emphasizes design principles and the skills and techniques applied to page layout, computer graphics, and digital imaging, leading to careers in graphic design, advertising design, computer art, or web design.

**Credit Hours: 1**

### DSGN-114 TEXT AND TYPE

A five week course on an introduction to typography, including classification and design of fonts, and type utilities used with personal computers. Techniques used in word processing and page layout applications. Text formatting including indents, tabs, and use of style menus, and basics of design with type.

**Credit Hours: 1**

### DSGN-118 ADOBE PHOTOSHOP

The use of tools and pull down menus of Adobe Photoshop. Also, image re-sizing, tone manipulation, unsharp masking, use of layers and channels to optimize color images. Special effects using filters. Creating images appropriate for print, web and monitor usage.

**Credit Hours: 3**

### DSGN-120 ADOBE INDESIGN

Use of page creation software for print and interactive publications Topics will include document creation, importing of text and graphics, introduction to graphic design, and digital output, creation of interactive PDF's. Also covered preflighting of files for production, digital workflow, and PostScript output issues.

**Credit Hours: 1**

### DSGN-125 DIGITAL PHOTOGRAPHY

The course introduces students to the basics of producing digital images through hands-on activities and experiences operating a digital camera and basic imaging software to improve photos. During the class the student will define and use digital imaging terminology including file formats, identify features of different types of digital cameras, manipulate and organize images transferred from digital cameras, transfer images to computer software, and produce a variety of different digital photographs such as landscapes, portraits, action shots and product pictures.

**Credit Hours: 1**

### DSGN-128 ADOBE DREAMWEAVER

This course is an overview of website structure and publication. Course participants will learn the basic navigation and functionality of Adobe Dreamweaver and have an opportunity to produce beginner work for a portfolio. Topics include navigation, basic website design, file formats and saving, tools, linking elements on the page and website flow.

**Credit Hours: 1**

### DSGN-132 SOCIAL MEDIA BASICS

This course will be divided in three parts. (1) A brief overview of Social Media options (Such as Facebook, Twitter, UTube, etc.) (2) The ethics of Social Media that will focus on the action, the consequence and principles to guide the decision making process (3) Social Media marketing that will explore ways to connect with multi-media technology in business.

**Credit Hours: 1**

### DSGN-135 FLEXOGRAPHY I

**Pre-requisite(s):** *DSGN 131*

An introduction to all aspects of Flexographic printing that will include design, image preparation, plate making, presswork and finishing.

**Credit Hours: 3**

### DSGN-140 ADOBE ILLUSTRATOR

**Pre-requisite(s):** *DSGN 131*

An introduction to all aspects of Flexographic printing that will include design, image preparation, plate making, presswork and finishing.

**Credit Hours: 3**

### DSGN-218 ADOBE CREATIVE SUITE PROJECTS

**Pre-requisite(s):** *118, 120, 125, 134*

Integration of separate Adobe Creative Suite software applications from previous courses to create projects that may be published electronically such as on the internet, or printed on a traditional substrate such as paper or fabric.

**Credit Hours: 3**

### DSGN-232 PACKAGING DESIGN

**Pre-requisite(s):** *DSGN-113, 115, 116, 134, 135, 142*

Packaging is the fastest growing segment of the print communications industry. This course examines the different types of packaging such as paper and board, flexible and rigid plastics, bio-based materials, metal, and glass used for food, drugs, other consumer goods, and industrial products. Critical thinking skills will be applied in understanding the psychology of packaging design, analyzing corporate identity and branding issues, legal requirements, sustainable materials, and printing and production processes.

**Credit Hours: 3**

### DSGN-235 FLEXOGRAPHY II

**Pre-requisite(s):** *DSGN-135*

Advanced topics in flexographic printing. Emphasis in process color printing. Topics include image registration, quality control and production workflows.

**Credit Hours: 3**

### DSGN-245 SCREEN PRINTING

**Pre-requisite(s):** *3rd Semester majors*

Concentrated use of the equipment in the area of screen reproduction; special projects and lab work to obtain higher degree of proficiency in screen printing. Two formal labs and one lecture.

**Credit Hours: 3**

### DSGN-299 SPECIAL TOPICS (1, 2, OR 3)



## Course Descriptions

**Pre-requisite(s):** *Consent of faculty and chair*

Independent study of topic(s) pertinent to Digital Design and Communications

## Course Descriptions

### ECON

#### Economics

##### ECON-201 PRINCIPLES OF MICROECONOMICS (GEC 4)

**Pre-requisites:** *BUSN 112 or any 100 Level Math & ENGL 101 with a "C" or better*

This course explores the micro economy. Microeconomics emphasizes how individuals, households, firms and governments within society make decisions to allocate limited resources to satisfy unlimited wants. Students will be introduced to economic terminology, theory, models and application. This course will cover topics including, but not limited to: elasticity, efficiency and exchange, explore the application of economic models, government regulations on the market system and the different types of economic competition that may be found in the individual markets of our economy.

**Credit Hours: 3**

##### ECON-202 PRINCIPLES OF MACROECONOMICS (GEC 4)

**Pre-requisites:** *BUSN 112 or any 100 Level Math & ENGL 101 with a "C" or better*

This course explores the macro economy. Macroeconomics emphasizes how society as a whole and various groups within society manage scarce resources. It considers wide phenomena such as unemployment and inflation while focusing on aggregate economic outcomes. To better understand aggregate economic activity, students will be introduced to economic terminology, theory, models, and application. This course will cover topics including but not limited to: supply and demand, real and nominal magnitudes, trade, money, economic growth, inflation, international macroeconomics, aggregate demand and aggregate supply.

**Credit Hours: 3**

##### ECON-295 MONEY, BANKING AND FINANCIAL MARKETS

**Pre-requisites:** *ECON 201*

A survey of the historical development of the American monetary and banking institutions; the rationale behind financial tools; the concept of a global financial system; and the economic theory that is basis of our understanding of the role of financial markets.

**Credit Hours: 3**

### EDUC

#### Education

##### EDUC-101 HEALTHY ENVIRONMENTS FOR YOUNG CHILDREN

This course is an introduction to the basic requirements and regulations for health and safety in early childhood programs serving young children. This course is intended to prepare students to follow the practices required of all individuals who participate in early childhood programs.

**Credit Hours: 3**

##### EDUC-110 FAMILY RELATIONSHIPS

This course describes current and ongoing research related to the important benefits of family involvement to children's achievement, as well as practical ideas and specific activities for pre-service and in-service teachers to assist them in getting families involved in their children's education.

**Credit Hours: 3**

## Course Descriptions

### EDUC-115 INFANT AND TODDLER DEVELOPMENT

**Pre-requisite:** *PSYC 201*

This course will include an in-depth study of the physical, social, emotional, cognitive and language development of children from conception to age three. Students will develop an understanding of the importance of responsive quality care & use of developmentally appropriate practices when caring for infants and toddlers in a group setting as well as one on one.

**Credit Hours: 3**

### EDUC-120 FOUNDATIONS OF EARLY CHILDHOOD

**Pre-requisites:** *Eligible for ENGL 101*

This is an introductory course of the history, philosophy, and theoretical foundations of early childhood programs with specific attention to current programs serving children prior to school entry. Concepts for providing developmentally appropriate practices are introduced. Observation hours in an early childhood classroom will be required.

**Credit Hours: 3**

### EDUC-199 SPECIAL TOPICS

Special topics course relating to early childhood education.

**Credit Hours: 1-3**

### EDUC 215 INFANT & TODDLER EXPERIENCES

**Pre-requisites:** *ENGL 102, EDUC 115 & EDUC 225*

This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infants/toddler/twos development, plan/select activities/materials, and partnering with diverse families.

**Credit Hours: 3**

### EDUC-220 INTEGRATING TECHNOLOGY IN THE CLASSROOM

**Pre-requisites:** *PSYC 201*

Introduces future educators to technology and digital media. Students will learn about the latest trends in technology and how to integrate these concepts into their classroom using a variety of practical applications to successfully teach the current generation of digital students.

**Credit Hours: 3**

### EDUC-225 EARLY CHILDHOOD DEVELOPMENT

**Pre-requisites:** *ENGL 101*

This course examines the physical, emotional, cognitive and intellectual development of young children. Students will examine relationships with parents and peers and growth in self-direction with a primary focus on young children birth through five years of age. Observation and participation in an early childhood classroom required.

**Credit Hours: 3**

### EDUC-226 FIELD EXPERIENCE IN CLASSROOM MANAGEMENT

This course is designed for those in the paraprofessional role in the school setting and will give them experience in applying current management strategies in public school classrooms. Both group and individual management strategies will be implemented and a functional behavioral assessment will be required. This is the Capstone course for the Associate in Science in Education.

**Credit Hours: 3**

### EDUC 230 EARLY CHILDHOOD CLASSROOM MANAGEMENT

**Pre-requisites: ENGL 102 & EDUC 225**

Students study theories of early childhood education with emphasis on classroom management, teaching methods, assessment and behavior guidance. Students demonstrate their knowledge and understanding of theories and best practices by planning, designing, and assessing programs for young children with emphasis on management skills.

**Credit Hours: 3**

### EDUC 250 ADMINISTRATOR OF AN EARLY CHILDHOOD PROGRAM

**Pre-requisites: ENGL 102, EDUC 225 & BUSN 106**

This course allows students to study early childhood programs from the perspective of the person serving in the role of leader and administrator. Studies include the planning and development of a program or center, budgeting issues, environmental planning and preparation, state licensing regulations, health and safety guidelines, staffing and personnel issues and parent-school relationships.

**Credit Hours: 3**

### EDUC-260 SPECIAL NEEDS IN EARLY CHILDHOOD

**Pre-requisites: ENGL 102 and EDUC 225**

This course introduces students to children who differ from the average child in mental, physical and emotional characteristics. The purpose of this course is to provide educators with an overview of children with exceptional needs, focusing on historical, legal, and multi-cultural issues, high incidence disabilities and giftedness, including characteristics and adaptation of educational procedures.

**Credit Hours: 3**

### EDUC-290 LANGUAGE AND LITERACY FOR YOUNG CHILDREN

**Pre-requisites: ENGL 102 and EDUC 225**

This course is designed to teach Early Childhood educators how to recognize and implement appropriate environmental strategies that support early literacy development and appropriate early experiences with books, puppets, flannel board stories and writing. Emphasis is placed on listening and speaking, foundational skills for reading, literatures, and writing. Content will cover current theory, expectations of young children, teaching strategies, and the creation of literacy-rich environments. Upon completion of the course, students will be able to select, plan, implement, observe and evaluate appropriate early literacy experiences.

**Credit Hours: 3**

### EDUC-291 EARLY CHILDHOOD CURRICULUM &METHODS

**Pre-requisites: ENGL 102 and EDUC 225**

In this course students will plan, prepare, implement and evaluate learning experiences for young children. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion,

## Course Descriptions

students should be able to evaluate and critique curriculum models, plan for individual and group needs, and assess and create quality hands-on learning environments.

**Credit Hours: 3**

### EDUC- 292 OBSERVATION & ASSESSMENT OF YOUNG CHILDREN

**Pre-requisites:** *ENGL 102 and EDUC 225*

Introduces the basic principles of process instrumentation and control systems. Measurement parameters such as flow, pressure, level, temperature pH will be examined. Includes programmable logic controllers, distributed control systems, and process and control diagrams (P&CD's)

**Credit Hours: 3**

### EDUC-295 EARLY CHILDHOOD EDUCATION CAPSTONE

**Pre-requisites:** *EDUC 291 and EDUC 292*

Students will utilize the knowledge of early childhood education theory, assessment and curriculum development as they participate in a professional manner during a practicum placement. Observations and assessments of children will be used for learning activities required as the student gains actual teaching experience. Includes 90 to 120 hours of observation in an approved setting.

**Credit Hours: 4**

### EDUC 296 EARLY CHILDHOOD EXPERIENCE PRACTICUM

**Pre-requisites:** *ENGL 102 & EDCU 225*

Prearranged experiential learning program to be planned, supervised, and evaluated by faculty. May involve temporary placement with public or private enterprise for professional competence development.

**Credit Hours: 1-4**

### EDUC-299 SPECIAL TOPICS

Special topics courses related to Education

**Credit Hours: 1-3**

## ECET

### Electrical Engineering Technology

#### ECET-105 DC/AC CIRCUIT ANALYSIS

**Pre-requisites:** *Math-115*

Basic concepts of electricity, voltage, current, resistance, and power in DC and AC circuits are introduced. Topics include Ohm's law, Kirchhoff's laws, analysis of series and parallel circuits, principles of electromagnetism, characteristics of alternating currents, capacitive and inductive circuit analysis techniques, operation of basic transformers, equipment protection, and use of test equipment.

**Credit Hours: 3**

#### ECET-110 DC CIRCUIT ANALYSIS

**Co-requisites:** *MATH-135*

An introductory course in steady-state DC circuit analysis including electrical fundamentals, RLC circuits, test equipment and measurement techniques.

**Credit Hours: 4**

### ECET-115 AC CIRCUIT ANALYSIS

**Pre-requisites:** *ECET-110, MATH-135, MATH-140*

An introduction to the sinusoidal steady-state analysis of electrical circuits including waveforms, RLC circuits, impedance, power, frequency response, resonance, filters, test equipment and measurement techniques.

**Credit Hours: 4**

### ECET-120 ANALOG DEVICES I

**Pre-requisites:** *ECET-110, MATH-135, MATH-140*

An introduction to basic electronic device theory including semiconductor theory, diodes, BJTs, DC biasing, AC response, circuit applications and measurement techniques.

**Credit Hours: 4**

### ECET-150 FUNDAMENTALS OF RADIO COMMUNICATIONS

**Pre-requisites:** *ACT Math Score greater than 14.*

An introductory course in radio communications including basic electrical principles, radio wave fundamentals, FCC regulations and electrical safety. Students will be prepared to take the FCC amateur radio licensing exam.

**Credit Hours: 3**

### ECET-170 ALTERNATE ENERGY SYSTEMS

**Pre-requisites:** *ECET-110*

An introduction to alternative energy systems including photovoltaic systems, hydroelectric systems and wind energy systems.

**Credit Hours: 3**

### ECET-220 ANALOG DEVICES II

**Pre-requisites:** *ECET-115 and ECET-120*

A continuation of ECET-120 including multistage amps, op-amps, active filters, MOSFET switching and an introduction to instrumentation.

**Credit Hours: 4**

### ECET-230 DIGITAL DEVICES

Study of basic logic elements including gates, flip-flops, counters, registers, Boolean algebra, logic reduction methods, and digital logic applications.

**Credit Hours: 4**

### ECET-235 MICROCONTROLLERS

**Pre-requisites:** *ECET-230 or instructor permission*

Introduction to microprocessors and computer architecture focusing on microcontrollers. Topics include: computer architectures; addressing modes; memory interfacing; I/O interfacing; high level language programming, assembly language programming; system development and troubleshooting.

**Credit hours: 3**

### ECET-250 RF AND ANTENNA FUNDAMENTALS

**Pre-requisites:** *ECET-115 and ECET-120*

An introduction to RF communication including modulation; receiver and transmitter architectures, filters, system loss and gain, frequency allocation, antennas, propagation and RF measurement equipment.

**Credit Hours: 4**

### ECET-260 TELECOMMUNICATIONS

An introduction to data communications and modern telecommunication systems including multiplexing, analog and digital transmission, premise wiring, fiber optics and test equipment.

**Credit Hours: 4**

### ECET-262 ADVANCED TELECOMMUNICATIONS

**Pre-requisites:** *ECET-260*

A continuation of ECET-260 including DS3 and optical circuits, switching concepts, VOIP, FTTH, Ethernet, and cellular circuits.

**Credit Hours: 4**

### ECET-265 FIBER OPTICS

A study of fiber optic (FO) technology including theory, components, standards, installation considerations, cable handling, terminations, splicing and test equipment. Credit Hours: 3

### ECET-270 POWER SYSTEMS AND INDUSTRIAL DEVICES

**Pre-requisites:** *ECET-115*

A study of electrical machinery and power distribution systems for commercial and industrial applications including AC power, 3-phase systems, transformers, motors, control circuits, standards and safety.

**Credit Hours: 4**

### ECET-275 SUBSTATION MAINTENANCE I

**Pre-requisites:** *ECET-115*

A course in substation configuration, equipment, testing and maintenance procedures. including substation types and configurations; safety procedures; medium-voltage circuit breaker fundamentals; insulation resistance, contact resistance, over potential, vacuum and vacuum medium-voltage circuit breakers; medium voltage circuit break maintenance; switchgear properties and maintenance; battery types and maintenance; and basic over-current/I

**Credit Hours: 3**

### ECET-276 SUBSTATION MAINTENANCE II

**Pre-requisites:** *ECET-275*

A course in substation configuration, equipment, testing and maintenance procedures including disconnect switch fundamentals, maintenance and testing methods; grounding fundamentals, ground resistance testing and maintenance; transformer fundamentals; transformer testing; and the interpretation of test results.

**Credit Hours: 3**

## Course Descriptions

### ECET-277 ELECTRICAL SAFETY

**Pre-requisites:** *ECET-270 or ECET-275*

A course in electrical safety hazards and procedures focusing on electrical power distribution and industrial environments including electrical hazards and safety procedures for working on or around transmission, generation and distribution systems.

**Credit Hours: 3**

### ECET-280 PROGRAMMABLE LOGIC CONTROLLERS

An introduction to the programmable logic controller (PLC) and its industrial applications including relay logic, architectures, addressing, data types, ladder logic, programming structures and HMI's.

**Credit Hours: 3**

### ECET-285 INDUSTRIAL ROBOTICS

An introduction to the fundamental concepts of industrial robotics including safety; coordinate systems; robot geometry and configuration; manipulator control; sensor systems; path control; multi-axis dynamics; and program development and debugging.

**Credit Hours: 3**

### ECET-290 SEMINAR

Seminar course for graduating students. Topics include review for assessments, exit assessments and career preparation.

**Credit Hours: 1**

### ECET-299 SPECIAL TOPICS IN ELECTRICAL ENGINEERING TECHNOLOGY

Selected studies in Electrical Engineering Technology.

**Credit Hours: Varies**

## EMST

### Emergency Medical Services Technology

#### EMST-101 EMT BASIC

**Pre-requisites:** *Must have a high school diploma or G.E.D.*

**Co-requisites:** *BIOL 210 OR BIOL 220 and BIOL 221*

This course is the required course for any person seeking to become a West Virginia Emergency Medical Technician (EMT). This is a 150 hour class based off of the U.S. D.O.T. guidelines for EMT Basic curriculum. The student will have lectures as well as practical (hands on) instruction. When the student successfully completes the course, he/she may choose to take the National Registry of EMT's Exam. The course can be broken down into 7 modules. They are as follows: Preparatory, Airway Management, Patient assessment, Medical Emergencies, Trauma Emergencies, Infants and Children, Operations.

**Credit Hours: 10**



### EMST-111 INTRODUCTION TO PARAMEDIC TECHNOLOGY I

**Pre-requisites:** *Must have BIOL 210 or BIOL 220 and BIOL 221, and a valid WV EMT card.*

**Co-requisites:** *EMST 112 and EMST 113*

This course is an introduction to advanced pre-hospital care with an emphasis on roles and responsibilities of the Paramedic, his/her well-being, illness and injury prevention, medical/ethics/legal aspects of pre-hospital care in the field. The laboratory component of this course will provide the student the opportunity to work with simulated real life situations that require the knowledge learned in this course.

**Credit Hours: 3**

### EMST-112 INTRODUCTION TO PARAMEDIC TECHNOLOGY II

**Pre-requisites:** *Must have BIOL 210 or BIOL 220 and BIOL 221, and a valid WV EMT card.*

**Co-requisites:** *EMST 111 and EMST 113.*

This course is designed to teach techniques of patient history taking, physical examinations, patient assessment, clinical decision making, communication, and documentation. This course will also review principles of pathophysiology. Extensive lab time will be spent on learning and practicing these skills. Co-requisites: EMST 111, EMST 113, and admission into the Paramedic program with a "C" or better in all classes.

**Credit Hours: 3**

### EMST-113 ADVANCED AIRWAY MANAGEMENT

**Pre-requisites:** *Must have BIOL 210 or BIOL 220 and BIOL 221, and a valid WV EMT card.*

**Co-requisites:** *EMST 111 and EMST 112.*

This course is designed for students to further develop their knowledge in assessment and treatment of the patient with a compromised airway. Skills in advanced airway management, intravenous therapy, and pharmacology will be taught. Extensive lab time will be spent on learning and practicing these skills.

**Credit Hours: 6**

### EMST-221 MEDICAL EMERGENCIES I

**Pre-requisites:** *EMST 111, EMST 112, and EMST 113 with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 222 and EMST 233*

This course is designed for paramedic students who are currently in good standing in the program to review the pathophysiology, assessment, and management of medical patients with pulmonary and cardiovascular emergencies. In addition to instructional sessions, this course will include lab hours.

**Credit Hours: 4**

### EMST-222 MEDICAL EMERGENCIES II

**Pre-requisites:** *EMST 111, EMST 112, and EMST 113 with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 221 and EMST 223*

This course is designed for paramedic students who are currently in good standing in the program to further enhance their ability to recognize, understand the pathophysiology of, and treat the following medical emergencies: neurological, endocrinological, allergic and anaphylaxis, gastroenterological, urological, toxicological, hematological, environmental conditions, infectious and communicable diseases, behavioral and psychiatric disorders, gynecological and obstetric. In addition to instructional sessions, this course will include lab hours. **Credit Hours: 4**

## Course Descriptions

### EMST-223 SPECIAL CONSIDERATION PATIENTS

**Pre-requisites:** *EMST 111, EMST 112, and EMST 113 with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 221 and EMST 222*

This course is designed for paramedic students who are currently in good standing in the program to further enhance their ability to recognize and treat the patients that have special needs and to deal with medical incident command. These special consideration patients include those with trauma injuries, as well as neonatology, pediatrics, geriatrics, patients with special challenges and acute interventions for home health patients. Extensive time will be spent in the skills lab learning assessment techniques for all categories of special needs patients.

**Credit Hours: 8**

### EMST-231 PARAMEDIC OPERATIONS

**Pre-requisites:** *EMST 221, EMST 223, and EMST with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 232 EMST 233*

This course is designed for the paramedic students who are in good standing in the paramedic program to further enhance their ability to recognize and manage various types of ambulance operational situations. Areas of concentration include ambulance operations, rescuer awareness and operations, hazardous material incidents, abuse and assault patients, and crime scene awareness. In addition to instructional sessions, this course has a lab component.

**Credit Hours: 4**

### EMST-232 CLINICAL PRACTICUM 1 (GEC 4)

**Pre-requisites:** *EMST 221, EMST 223, and EMST with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 231 EMST 233*

The clinical practicum is designed for the paramedic students only. The student rotates throughout various affiliated sites. The clinical contact hours are to provide the student with direct experience in working with patients and aid the student in developing proficiencies in performing paramedic procedures. The course requires a minimum of 300 contact hours as well as a minimum number of clinical competencies that must be completed.

**Credit Hours: 4**

### EMST-233 CLINICAL PRACTICUM II

**Pre-requisites:** *EMST 221, EMST 222, and EMST with a grade of "C" or better; and a current valid WV EMT card*

**Co-requisites:** *EMST 231 EMST 232*

The clinical practicum is designed for the paramedic student only and is the capstone course. The student rotates throughout various affiliated sites completing their direct experience with patients while developing proficiencies in performing paramedic procedures and assessment based patient management. The course requires a minimum of 300 contact hours as well as completing a minimum number of clinical competencies.

**Credit Hours: 4**

### ENGL

#### English

##### ENGL-095 ACCELERATED INTEGRATED READING AND WRITING

**Pre-requisites:** *ACT English 11-15 OR Accuplacer Sentence Skills 45-65. In addition, ACT Reading score 12-14 OR Accuplacer Reading score 35-59.*

**Co-requisites:** *ENGL 101*

This course focuses on developing reading comprehension, composition, and critical thinking skills necessary for academic success in college.

**Credit Hours: 3**

##### ENGL-096 ACCELERATED WRITING SKILLS

**Pre-requisites:** *ACT English 16-17 OR Accuplacer Sentence Skills 66-87. In addition, ACT Reading 15-16 OR Accuplacer Reading score 60-78.*

**Co-requisites:** *ENGL 101*

Course topics include the writing process; sentence, paragraph, and essay development; and basic grammar, mechanics, and usage.

**Credit Hours: 1**

##### ENGL-101 ENGLISH COMPOSITION 1 (GEC 1)

**Pre-requisites:** *ACT English 18 or Accuplacer Sentence Skills 88.*

**Pre-requisites:** *ENGL 095 or ENGL 096 if required by placement.*

The course emphasizes expository writing and reading with a focus on the process of writing.

**Credit Hours: 3**

##### ENGL-102 ENGLISH COMPOSITION II (GEC 1)

**Pre-requisites:** *ENGL-101 with a grade of C or better*

This course primarily focuses on the research writing process. It covers basic research inquiry, MLA documentation, and the use of the library. Particular attention is given to argumentation and critical thinking skills.

**Credit Hours: 3**

##### ENGL-103 TECHNICAL WRITING (GEC 1)

**Pre-requisites:** *ENGL-101 with a C or better*

An introductory course, with emphasis on the process of preparing various technical documents as well as methods of research.

**Credit Hours: 3**

##### ENGL-202 BUSINESS AND PROFESSIONAL WRITING (GEC 1)

**Pre-requisites:** *ENGL-101 with a C or better*

This course emphasizes reading and writing in professional/business situations. The focus will be on creating emails, memos, short reports, job proposals, collaborative projects, reports, and oral presentations.

**Credit Hours: 3**

## Course Descriptions

### ENGL-203 AMERICAN LITERATURE TO 1865

**Pre-requisites:** *ENGL-101 with a C or better*

This course surveys the major writers and literary periods from American beginnings to the Civil War, with an emphasis on multicultural, feminist, and historical perspectives.

**Credit Hours: 3**

### ENGL-204 AMERICAN LITERATURE SINCE 1865

**Pre-requisites:** *ENGL-101 with a C or better*

This course surveys the major writers and literary periods from the Civil War to today, with an emphasis on multicultural, feminist, and historical perspectives.

**Credit Hours: 3**

### ENGL-215 INTRODUCTION TO LITERATURE

**Pre-requisites:** *ENGL-101 with a C or better*

This is a survey course which examines selected poetry, drama and fiction along with principles of literary criticism.

**Credit Hours: 3**

### ENGL-218 INTRODUCTION TO THE SHORT STORY

**Pre-requisites:** *ENGL-101 with a C or better*

This course is an introduction to literature through short stories. It focuses on careful reading and interpretation of the short story as a distinct genre. It examines formal and thematic elements of the short story as well as a wide range of styles, themes, and contexts.

**Credit Hours: 3**

## FINC

### Business and Legal Studies Division-Accounting & Finance

#### FINC-120 PRINCIPLES OF BANKING

Considers many bank functions such as language and documents of banking, check processing, teller functions, deposit functions, trust services, investments, and the bank's role in the community.

**Credit Hours: 3**

#### FINC-121 CONSUMER LENDING

A complete study of the consumer lending function with special emphasis placed on credit evaluation process. Other topics include types of loans, collection procedures, and marketing techniques.

**Credit Hours: 3**

#### FINC-201 PERSONAL FINANCE

This course examines the financial problems encountered by the individual in the management of his/her own affairs. Areas covered include budgeting, consumer borrowing, real estate, investments, insurance, taxes, and estate and retirement planning.

**Credit Hours: 3**

## Course Descriptions

### FINC-199 SPECIAL TOPICS

Special topics course relating to Finance.

**Credit Hours: 1-3**

### FINC-280 FINANCIAL MANAGEMENT

**Pre-requisites:** *Grade of C or better in ACCT 215*

Basic understanding of the functions of a financial manager. A descriptive approach is used to cover such topics as time value of money, ratio analysis, leverage, capital budgeting and stocks and bonds.

**Credit Hours: 3**

### FINC-295 MONEY, BANKING AND FINANCIAL MARKETS

**Pre-requisites:** *ECON 201 or 202*

A survey of the historical development of the American monetary and banking institutions; the rationale behind financial tools; the concept of a global financial system; and the economic theory that is basis of our understanding of the role of financial markets.

**Credit Hours: 3**

### FINC-296 ANALYZING FINANCIAL STATEMENTS

Course explores understanding business industries and types, plus why they borrow money. It also introduces basic concepts of business financial accounting and entity structures and explains the analysis of business financial statements and tax returns, including cash flow statements. Finally, the course discusses personal financial statements and tax returns, as well as combining business and personal cash flows into a global analysis.

**Credit Hours: 3**

### FINC-299 SPECIAL TOPICS

Special topics course relating to Finance.

**Credit Hours: 1-3**

## GAME

Simulation, Gaming and Apps Development

### GAME-111 INTRODUCTION TO SIMULATION, GAMING AND APPS DEVELOPMENT

This course introduces a brief history of video gaming and evolution, simulation, and general game development. Topics include: key development techniques, story-telling mechanics, game genres, game play, and simulation structure. Upon course completion, students should be able to demonstrate knowledge of the major aspects of simulation, game design, and development.

**Credit Hours: 3**

### GAME-113 INTRODUCTION TO ADOBE FLASH

This course introduces the Flash programming environment for use in simulation and game development. Topics include: general design tools, timeline usage, button creation, motion tweening, sprite-swapping, and Action Script. Before taking this course, you should have a good working knowledge of standard operating systems, should know how to use the mouse, keyboard, standard menus, and commands, and also know how to open, save, and close files. Upon course completion, students should be able to create a simple Flash game.

**Credit Hours: 3**

## Course Descriptions

### GAME-116 INTRODUCTION TO AUDIO & VIDEO PRODUCTION

This course introduces audio and video production and their application in simulations, gaming, and apps building. Topics include techniques for recording, editing, and producing audio and video files for use in multiple digital media.

**Credit Hours: 3**

### GAME-120 BUILDING A GAMING COMPUTER

This course is designed for anyone interested in building a computer specifically designed for today's resource intensive video games. Topics will include: pricing parts, popular builds, setting a motherboard and power supply, building the machine, installing the operating system, updating drivers, and finally benchmarking/optimization. Before taking this course, you should have a good working knowledge of standard operating systems and should know how to use the mouse, keyboard, standard menus, and commands, and also how to open, save, and close files. Upon course completion, students should have the confidence and know-how to build their own gaming rig.

**Credit Hours: 1**

### GAME-123 ADVANCED ADOBE FLASH

**Pre-requisite(s):** *GAME 113*

An advanced course using the Flash programming environment for use in simulation and game development. Concentration is placed on learning advanced Flash techniques for use in SGD. Upon completion, students should be able to create industry quality simulations, games, and apps using Adobe Flash.

**Credit Hours: 3**

### GAME-126 ADVANCED AUDIO & VIDEO PRODUCTION

**Pre-requisite(s):** *GAME 116*

An advanced course in audio and video production application in simulations, gaming, and apps building. Topics include advanced techniques used in producing audio and video files for use in multiple digital media.

**Credit Hours: 3**

### GAME-130 INTRODUCTION TO WEB DESIGN

This course will take an in depth look at web design concepts and techniques. It will examine theoretical concepts that make the world of Web design unique. Also, this course will adopt a practical hands-on approach when examining Web development techniques. Along with examining different coding strategies, this course will explore the advancement of Web site implementation, as well as, timeless problem solving strategies.

**Credit Hours: 2**

### GERO

#### Gerontology

##### GERO-102 HEALTH ASPECTS OF AGING

This course provides an overview of the health and biological aspects of aging, biological theories of aging and longevity, and chronic illnesses that are common in the elderly. The course orients students to the philosophy that aging is a manageable process. This course recognizes the exciting aspects of the aging process and the creative and resilient ways in which human beings may maximize “life satisfaction” over the life cycle, through health promotion behavior.

**Credit Hours: 3**

##### GERO-103 INTRODUCTION TO GERONTOLOGY

This course provides students with an overview of the field of gerontology and the aging process; current empirical research on adult development and aging; an orientation to tasks facing future gerontologists; demographics of aging; and the opportunity to think critically about gerontological issues and myths about adult development and aging.

**Credit Hours: 3**

##### GERO-199 SPECIAL TOPICS

**Pre-requisites:** *Permission/Collaboration with Program Coordinator.*

Special Topics course relating to the field of Gerontology.

**Credit Hours: 1-3**

##### GERO-202 GERONTOLOGY PRACTICUM (GEC 4)

**Pre-requisites:** *Completion of 6 Credit Hours of Gerontology Core Courses with a grade of “C” or better; Permission of Program Coordinator.*

This course requires that a student spend 240 Contact hours in an approved agency that provides services to the elderly population. Practicum are geared toward the student’s career interests and objectives. Practicum sites will provide professional work experiences in administration, education, and direct services. Practicum is a capstone course utilizing all of the student’s skills and knowledge regarding gerontology.

**Credit Hours: 3**

##### GERO-204 ADMINISTRATION AND PROGRAM PLANNING IN GERONTOLOGY

This course presents the basic organizational structure applicable to social service agencies; the objectives of the older Americans Act and the implications of the act on the current local, state, and national aging networks; various services provided by community programs and residential institutions; grant writing and the processes of planning and evaluating new programs and services; policy-making at the state and national levels; an in-depth review of the resources relevant to the elderly; and entitlement programs, retirement, and older worker programs.

**Credit Hours: 3**

##### GERO-205 HUMAN RELATIONSHIP SKILLS

This course provides the student with an introduction to interpersonal skills and intervention techniques to develop effective active listening, assertion skills, problem solving skills, and conflict resolution skills to work with people, including the confused, difficult, quiet, and angry.

**Credit Hours: 3**

### GERO-206 DEATH AND DYING

This course will provide students with an overview of the stages of dying and bereavement, an understanding of how to care for and communicate with dying clients, an overview of advance directives, and assistance in confronting students' own attitudes toward death and dying.

**Credit Hours: 3**

### GERO-208 LONG TERM CARE

This course provides students with an overview of the long-term care continuum and the different types of long-term care settings. Students will survey the state of long-term care and forecasts for the future, explore how the various segments of long-term care fit together to form an overall system, and be oriented to licensure, accreditation, reimbursement, governance, management, and marketing/public relations in long-term care.

**Credit Hours: 3**

### GERO-209 PSYCHOSOCIAL ASPECTS OF AGING (GEC 3)

This course provides an overview of the concepts and issues regarding the social and mental health of aging and the aged. It orients students to the psychological transitions that take place later in life, to the illness and functional disorders experienced by the aged, and to the various treatments and services for mental disorders. This course also explores various perspectives and sociological developments in aging, cultural diversity, adaptations in later life, social problems facing the elderly, sociological myths that surround the aged, and the social services available to the elderly.

**Credit Hours: 3**

### GERO-298 GERONTOLOGY STUDIES SEMINAR

**Pre-requisites:** *All graduation requirements except for courses in which the student is currently enrolled must be completed.*

Cross listing with BUSN 298 – Business Studies Seminar. This capstone course must be taken the semester the community college student plans to graduate. Program specific and general knowledge exit examinations, oral presentations, writing assignments, and case analyses will be used to measure student competencies. Seminars will be presented on such topics as resume writing, interviewing skills, time management, business etiquette, and customer service.

**Credit Hours: 1**

### GERO-299 SPECIAL TOPICS

**Pre-requisites:** *Permission/collaboration with Program Coordinator.*

Special Topics course relating to the field of Gerontology.

**Credit Hours: 1-3**



### GNET

#### General Engineering Technology

##### GNET-107 INTRODUCTION TO COMPUTER APPLICATIONS FOR TECHNICIANS

Prepares students with a basic working knowledge of computers and apply software applications to situations associated with their technical studies and working environment. Students will have a basic introduction to the computer, internet basics, file and folder creation, and Windows feature usage. They will use basic office productivity software to perform fundamental technical document preparation and delivery in worksheets, charts and presentations.

**Credit Hours: 3**

##### GNET-108 COMPUTER APPLICATIONS FOR TECHNICIANS (GEC 4)

**Co-requisites:** *Math 060, Math 096 or Math ACT score of 19 or higher (BAHM-265 or BAHM-101 helpful for students that have limited computer experience.)*

Prepares students to apply software applications to the solution, reporting, and presentation of findings associated with their technical studies. Students will use software to perform technical document and presentation preparation and delivery, charting, sorting and filtering, import and export of data, unit conversion, data analysis, curve fitting, and the solution of single equations. Applications from all fields of technology will be used as a basis for problem solutions.

**Credit Hours: 3**

##### GNET-111 PUBLIC SPEAKING FOR TECHNOLOGY

**Co-requisites:** *ENGL 101*

An introduction to public speaking in a technical context with a concentration on using presentation software as a foundation for effective speeches and presentations. Presentations will focus on technical talks and issues of concern in the modern workplace environment. Topics will focus on preparing the student to understand and appreciate diversity among people as well as working professionally in an ethical manner.

**Credit Hours: 1**

##### GNET-112 ETHICS AND PROFESSIONAL BEHAVIOR

**Pre-requisite(s):** *Final Year Standing*

The course provides the student with an overview of ethical and professional behavior while working in the field of engineering technology. A typical code of ethics and rules of professional conduct are covered and concentration is placed on the employee's obligations to the employer and the client. Students are required to participate in profession activities and to document this involvement.

**Credit hours: 1**

##### GNET-121 INDUSTRIAL SAFETY FUNDAMENTALS / OSHA 10

Introduction to safety and hazard recognition for general industry intended for entry level workers. Topics include introduction to OSHA, electrical safety, egress and fire protection, walking and working surfaces, flammable and combustible liquids, personal protective equipment, machine guarding, hazard communication, blood-borne pathogens as well as safety and health programs. OSHA 10-hour general industry safety and health course completion cards will be issued based on course attendance.

**Credit hours: 1**

### GNET-122 INDUSTRIAL SAFETY / OSHA 30

Introduction to safety and hazard recognition for general industry intended for workers with safety responsibilities. Topics include: manual handling and material storage; mechanical injuries; industrial environmental hazards-solvents, particulate, noise, radiation, toxicology, and ergonomics, etc.; monitoring instruments; protective devices; industrial hygiene programs and safety practice in the use of basic hand and machine tools, with reference to OSHA, and other regulatory safety regulations. OSHA 30 hour general industry safety and health course completion cards will be issued based on course attendance.

**Credit Hours: 3**

### GNET-123 CONSTRUCTION SAFETY FUNDAMENTALS

The Construction Safety course will give students an understanding of how safety plays a role on construction sites. Students will demonstrate their understanding of construction industry regulations and standards in compliance with OSHA. The course emphasizes hazard identification, avoidance, control and prevention and is not simply a review of OSHA standards. Instructional time must be a minimum of 30 hours. Upon successful completion of the required hours and course work, students will earn the 30 hour Construction OSHA card.

**Credit Hours: 3**

### GNET-125 40-HOUR SURFACE APPRENTICE CLASS

Curriculum will consist of instruction in Equipment and Job Safety, Federal and State Mining Laws, First Aid, Blasting, Welding, Prep Plant and Tipple Safety, Fire Prevention and Controls, Hazardous Chemicals, Personal Protective Equipment, Conveyor-Belt Safety, Substance Abuse, Lock- Out/Tag-Out Procedures, Mine Emergency Plan, Mining Terms and Definitions. At the completion of the class a test will be given by a State Mine Inspector.

**Credit hours: 2**

### GNET-126 80-HOUR UNDERGROUND APPRENTICE CLASS

Curriculum will consist of instruction in Equipment and Job Safety, Federal and State Mining Laws, Roof and Rib Control, Pinch-Point Safety, Mine Gas Detection, Self- Rescuer Training, First Aid, Blasting, Welding, Prep Plant and Tipple Safety, Fire Prevention and Controls, Hazardous Chemical, Personal Protective Equipment, Conveyor-Belt Safety, Substance Abuse, Lock-Out/Tag-Out Procedures, Mine Emergency Plan, Mine Fires and Explosions, Ventilation and Controls, and Mining Terms and Definitions. At the completion of the class a test will be given by a State Mine Inspector.

**Credit hours: 4**

### GNET-145 LEAN SIX-SIGMA YELLOW BELT

**Pre-requisites:** *Permission of Instructor*

Introduction to the concepts of Lean Six Sigma in preparation for Lean Yellow Belt certification. Includes introduction to Six-Sigma principles, control charts, Pareto analysis, return on investment, basic statistics and statistical diagrams. Also includes identification of wastes and 5S.

**Credit Hours: 2**

## Course Descriptions

### GNET-146 LEAN SIX -SIGMA GREEN BELT

**Pre-requisites:** *Permission of Instructor*

Introduction to concepts of Lean Six Sigma in preparation for Lean Green Belt certification. Builds on the foundation of Six-Sigma Yellow Belt. Includes a study of process capability assessments, process mapping, FMEA, and measures of central tendency and dispersion. Also includes lean topics of value stream mapping, Kaizen events, total productive maintenance and flow pull systems. Students are required to complete one project selected by the instructor.

**Credit Hours: 5**

### GNET-147 LEAN SIX-SIGMA BLACK BELT

**Pre-requisites:** *Lean Six Sigma Green Belt & Permission of Instructor*

Introduction to concepts of Lean Six Sigma in preparation for Lean Black Belt certification. Includes a review of Lean Six-Sigma Green Belt topics plus an in-depth study of statistics used in six sigma projects. Students will review all material at the end of the course in preparation for certification testing. Students are required to complete two projects selected by the instructor.

**Credit Hours: 7**

### GNET-161 NANOSCIENCE

**Pre-requisites:** *Eligible for English Composition I*

Introductory level class for nanoscience for students of all knowledge levels. This course is designed to provide an overview of nanoscience including perspectives, nanotools, and emphasis on properties, phenomena, synthesis and modifications.

**Credit Hours: 3**

### GNET-162 NANOFABRICATION

Introductory level class for nanotechnology for students of all knowledge levels. This course is designed to provide an overview of nanotechnology with an exploration of practical applications by examining materials, chemistry, coatings pharmaceuticals, components, mechanisms, devices and systems. Focus is on science and developing nanotechnology.

**Credit Hours: 3**

### GNET-210 ESTIMATING

**Pre-requisites:** *BAHM-260 or GNET 108, GREN 221 or permission of instructor*

Provides students the skills to estimate the costs of the various activities of a construction project. Issues to be considered include contract documents, the bid award process, types of estimates, breakdown of a project, elements of the estimate, quantity take-off techniques, estimating labor, material and equipment costs, use of "experience" tables and databases, adjustments for overhead, profit and contingencies, and assembling the estimate.

**Credit Hours: 3**

### GNET-212 PROJECT MANAGEMENT

**Co-requisites:** *ENGL 101, MATH 130*

Analysis and management techniques used to implement a successful project. Topics include: project planning, project scheduling and staffing, and project control; project administration, economic analysis, and reporting procedures; and material and labor cost estimating. Project management software will be introduced, a project will be analyzed, and an in-depth project report will be generated and presented.

**Credit Hours: 3**

### GNST

#### General Studies

#### GNST-101 COLLEGE TRANSITION

**Pre-requisites:** *Students selected by participating high school; signed participation agreement*

College transition is a college success and orientation course designed to develop confidence and improve chances of student success and retention. This course will provide students with active participation in the assessment and development of abilities in line with college expectations including an orientation to college services and activities, learning and test taking skills, using traditional and electronic resources, problem solving, people skills, self-management skills, and career/life planning strategies.

**Credit Hours: 1-3**

#### GNST-102 FIRST YEAR EXPERIENCE

The first year experience course is designed to develop confidence and improve the chances of success for the incoming freshman. This course will provide students with the opportunity to assess and develop abilities in line with college expectations including utilization of college services, program planning, library skills, time and self-management skills, personal finance – including credit card debt, critical thinking and problem solving. It will also introduce incoming students to the BridgeValley General Education Portfolio process.

**Credit Hours: 1**

#### GNST-103 CLASSROOM SUCCESS STRATEGIES

Classroom Success Strategies is a course designed to develop confidence and improve the chances of academic success for incoming freshman, students enrolled in developmental education courses and students who have been away from a learning environment for a number of years. This course will provide students with the opportunity to: assess and develop current and alternative learning styles for college success, apply college-level learning approaches for improved concentration and memory and adapt active listening and note taking skills. College 103 also covers reading strategies for improved comprehension, strategies for college-level test preparation along with examining the tools used in the critical thinking process. **Credit Hours: 1**

#### GNST-104 PROFESSIONAL DEVELOPMENT

This course is designed to develop confidence and improve the chances of success for students as they enter their professional field. This course will provide students with the opportunity to investigate career opportunities within various fields of study and assess the skills necessary to succeed in the professional world. Students will be exposed to job acquisition skills such as resume and cover letter writing, interviewing skills, networking and online job search skills, leadership, diversity, ethical reasoning, strategic thinking, and creative problem-solving.

**Credit Hours: 1**

### GNST-105 MILITARY TO COLLEGE LIFE

This course is designed to introduce new recruits to military service and the completion of a college degree as they enter the Future Soldier program. The course covers basic military concepts, military history, and financial readiness, utilization of the GI Bill, tuition assistance, and connection to the community college for degree completion. Enrollment is limited to recruits in the Future Soldier program. Pass/Fail grading.

**Credit Hours: 3**

### GNST-110 ENHANCED FIRST YEAR EXPERIENCE

This course is designed to develop confidence and improve the chances of academic success for first year college students. It will provide students with the opportunity to assess and develop abilities in line with college expectations including utilization of college services, program planning, study and time management skills, library skills, interpersonal relationship skills, personal leadership development, self-management skills, and career/life planning strategies. This course is recommended for students taking more than one developmental education course and is also beneficial for students who have been away from a learning environment for a number of years.

This course is equivalent to GNST 102, 103, and 104 (combined).

**Credit Hours: 3**

### GNST-130 INTRODUCTION TO GOVERNORS PORTFOLIO

**Pre-requisites:** *Eligible for ENGL 101 or permission of instructor, basic computer skills, and BOG AAS majors only*

The portfolio development course is designed to introduce Board of Governors AAS majors with the development of a comprehensive documenting of knowledge acquired through life/work experiences and other formal and informal learning experiences. Students will be introduced to the various components of an experiential learning portfolio.

**Credit Hours: 1**

### GNST-199 SPECIAL TOPICS

**Pre-requisites:** *As stated for each offering*

Courses or seminars on timely subjects related to the topic.

**Credit Hours: 1-3**

### GNST-299 SPECIAL TOPICS

**Pre-requisites:** *As stated for each offering*

Courses or seminars on timely subjects related to the topic.

**Credit Hours: 1-3**

### GNST-201 WRITING GOVERNORS PORTFOLIO

**Pre-requisites:** *GNST 130*

The portfolio development course is designed to assist Board of Governors AAS students with the development of an experiential learning portfolio. Each student is responsible for the development of a written portfolio, which provides the analysis and documentation of learning experiences appropriate for his/her own educational program of study.

**Credit Hours: 2**

## Course Descriptions

### GREN

#### Sustainable Technology

##### GREN-101 INTRODUCTION TO SUSTAINABILITY

A survey course which introduces the participant to the many topics of the Triple Bottom Line of Sustainability. The economic, societal, and environmental impacts of the human species on the planet are discussed and the Nine Opportunities for Sustainability are presented as a potential solution to those impacts.

**Credit Hours: 3**

##### GREN-221 GREEN CONSTRUCTION TECHNOLOGY I

Topics include various construction techniques and materials associated with sustainable construction methods. Use of passive and active solar energy, sustainably harvested wood products, geothermal heating and cooling, and recycling and reuse of "grey water" are topics included.

**Credit Hours: 3**

##### GREN-222 GREEN CONSTRUCTION TECHNOLOGY II

**Pre-requisites:** *GREN-221*

Continuation of GREN 221, with concentration on methods employed by Green Advantage and Leadership in Energy and Environmental Design (LEED). While not necessary to be in the process of certification from either body, completion of this course will inform and familiarize student of the benefits of both.

**Credit Hours: 3**

### HIST

#### History

##### HIST-101 UNITED STATES HISTORY TO 1865 (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

An introduction to the political, economic, social, and cultural history of the United States from exploration to the Civil War.

**Credit Hours: 3**

##### HIST-102 UNITED STATES HISTORY FROM 1865 TO CONTEMPORARY TIMES (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

An introduction to the political, economic, social and cultural history of the United States from Reconstruction to the contemporary era.

**Credit Hours: 3**

##### HIST-111 WORLD HISTORY TO 1500 (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

Comparative history of Africa, Asia, and Europe from earliest times until 1500. Political, economic, social and religious developments with concentration on patterns of authority, the individual, nature, and society.

**Credit Hours: 3**

## Course Descriptions

### HIST-112 WORLD HISTORY SINCE 1500 (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

Comparative history of Africa, Asia, and Europe 1500 to the present. Political, economic, and social developments with concentration on pattern of authority, the individual, nature, society, and the impact of the West.

**Credit Hours: 3**

### HIST-205 APPALACHIAN CULTURE AND HISTORY (GEC 3)

**Pre-requisites:** *ENGL 101*

This course emphasizes the study of Appalachia and its culture and history. It will be an overview that will include the history of the region and its cultures and customs.

**Credit Hours: 3**

## HMGT

### Healthcare Management

#### HMGT-105 FOUNDATIONS OF HEALTH CARE MANAGEMENT

Course Objectives: Describe the healthcare as a system, including its unique and important features, to general audiences. Understand and apply healthcare management terminology Be able to apply the critical thinking needed when assessing patient care, management techniques, and the medico-legal issues that may arise from each. Describe healthcare policy issues that are facing the system past, present, and future.

**Credit Hours: 3**

#### HMGT-120 COMPUTER APPLICATIONS IN HEALTHCARE ORGANIZATIONS

**Pre-requisites:** *A TEC 115, HMGT 105*

The delivery of health services has become an information intensive process, and is at the core of most health services professionals' activities. Computers are being used to document patient care, assist in the diagnosis and management of a variety of health conditions, measure clinical outcomes to improve quality of care, and in administrative and financial management decisions. This course provides students with knowledge to assist them in understanding the design, evaluation, selection, and utilization of computer applications in health care to support high quality patient care and management decisions. The need to understand the ethical and legal responsibilities of managers as health information is collected, stored, retrieved and analyzed in this rapidly increasing integration of computer application in health care will also be included.

**Credit Hours: 1**

#### HMGT-199/299 SPECIAL TOPICS IN HEALTH CARE MANAGEMENT

**Pre-requisites:** *Consent of Instructor*

Independent study of topic(s) pertinent to the profession of health care management.

**Credit Hours: 1-3**

### HMGT-205 ETHICAL/LEGAL ASPECTS OF HEALTH CARE MANAGEMENT (GEC 3)

**Pre-requisites:** *HMGT 105*

**Co-requisites:** *HMGT 105*

Rapid advances in medical technology challenge legal and ethical standards, and lend to situations requiring moral decisions. This course provides the student with an introduction to law, ethics and bioethics as they apply to decision making in the health care setting. Emphasis is on use of appropriate language, application of ethical principles, and use of critical thinking skills to articulate a point of view on current issues in health care.

**Credit Hours: 3**

### HMGT-210 QUALITY & PATIENT SAFETY IN HEALTHCARE

**Pre-requisites:** *HMGT 105, HMGT 205*

This course is designed for students who seek an understanding of the administration and organization of quality and patient safety definitions, practices, processes within the health care system of the United States. This course focuses on quality and patient safety management in the US health care system using continuous quality improvement and team building techniques. Topics to be examined include the history of quality, leaders and trends in health care quality and patient safety, measure and measurement development, analysis of variation and quality practices in different health care environments, administrative responsibilities and structures with respect to production and service quality, including the function and roles of professional and non-professional staff.

**Credit Hours: 3**

### HMGT-215 MANAGEMENT OF HEALTHCARE DELIVERY SYSTEMS

**Pre-requisites:** *HMGT 105, HMGT 205*

**Objectives:**

Explain the evolution of healthcare delivery systems in the United States.

Identify the social, legal, and economic factors that affect the delivery of healthcare.

Identify and describe the regulators of healthcare, including government and nongovernment entities.

Describe the various types of long-term care institutions and short-term care institutions, the levels of services they provide, and the sources of financing. Describe the types of recipients of mental and rehabilitative health services, and the sources of financing. Describe the critical health policy issues in the US and explain the future trends in healthcare. Demonstrate the healthcare management concepts in fundamentals through a 20 hour career exploration/observation of healthcare management practitioners.

**Credit Hours: 3**



### HSRS

#### Human Services and Rehabilitation Studies

##### HSRS-106 PEER SUPPORT SPECIALIST I

**Co-requisites:** *HSRS 120*

This course begins the skill-focused series of courses providing academic background in recovery-oriented peer support and person-centered psychiatric rehabilitation. Emphasis is on use of self to inspire hope and promote recovery. Students are introduced to recovery concepts; wellness tools; people-first language; personal narratives; and self-determination. They learn about mental health and addiction concerns; negative self-talk; triggers; intense situations; and time management. The self-help movement, recovery environment characteristics, partnerships, and cultural awareness topics are explored.

**Credit Hours: 4**

##### HSRS-107 PEER SUPPORT SPECIALIST II

**Pre-requisites:** *HSRS 106*

Second in the skill-focused curriculum, this course builds on academic knowledge in recovery-oriented peer support and psychiatric rehabilitation. Students learn about identifying strengths to help others; developing peer groups and programs; and honing advocacy skills. Principles, practices, and concerns surrounding peers as providers are discussed. Students interactively use self-assessment, discovery, goal-setting, and planning. Familiarity is developed with recovery models and methodologies, effective interpersonal skills, sharing stories of recovery, and exploration of life domains.

**Credit Hours: 4**

##### HSRS-120 INTRO TO COMMUNITY BEHAVIORAL HEALTH

An overview of the modern delivery of behavioral health care services in the community. A knowledge base is provided for sensitivity to the human dimensions of service delivery, as well as the need for cooperative functioning in multi-disciplinary working environments.

**Credit Hours: 3**

##### HSRS-121 WRAP® SEMINAR I

WRAP® Seminar I is a two-day training for up to 16 students. This course is for anyone wanting to learn about Wellness Recovery Action Planning and begin to incorporate it into their life to improve personal wellness and achieve improved quality of life. It is designed to be highly interactive and encourage participation and sharing from students. This course lays a foundation for building a peer workforce. WRAP Seminar I fulfills prerequisites to be trained as a WRAP® Facilitator as required by Copeland Center for Wellness and Recovery

**Credit Hours: 1**

### HSRS-123 PSYCHIATRIC REHABILITATION I

**Pre-requisites:** *HSRS 120*

The Psychiatric Rehabilitation sequence of courses is a skill-focused curriculum designed to provide students with experience in the skills of person-centered psychiatric rehabilitation practice. Ongoing development of effective interpersonal skills is emphasized. A two hour weekly skill session is included where students are provided further supervised practice, alternating roles of practitioner and participant along with other students. This “hands-on” approach, from two perspectives, provides opportunity for students’ personal development as they learn skills of facilitating development of others. Students receive introductory counseling skills training, including responding to content, feeling, and meaning.

**Credit Hours: 3**

### HSRS-125 OBSERVATION, CRISIS, DOCUMENTATION

This course is designed to develop awareness and skill in the monitoring of, intervention in and recording of critical events. The primary focus of this course is to provide students with the basic skills and techniques of Nonviolent Crisis Intervention: The safe management of disruptive and assaultive behavior.

**Credit Hours: 3**

### HSRS-126 IMPAIRMENTS, DISABILITIES, AND HANDICAPS

**Pre-requisites:** *HSRS 120, Eligible for ENGL 101*

The problems of persons with mental disorders vary in nature. An objective of this course is to provide students a familiarity with the symptoms and treatment for various disorders, while also providing a knowledge base for the understanding of non-medical needs and issues. The primary focus of this course is to teach students to use the Diagnostic and Statistical Manual of Mental Disorders 5 as an investigative path for on-going understanding of mental disorders. NOTE: Observation/practicum experiences with written and oral reports are required as out-of-class assignments of this course.

**Credit Hours: 3**

### HSRS-127 YOUTH DEVELOPMENT WELLNESS

This course provides students with a comprehensive understanding of the nutritional, health and physical activity requirements for young children and adolescents. Students will gain an understanding of how the environment, diet, and prenatal factors play an important role on body composition, fat distribution and physical structure as well as cognitive, emotional, psychological and social development.

**Credit Hours: 3**

### HSRS-130 INTRODUCTION TO AUTISM

This course is an introductory course for the three courses, ten-credit hour skill set certificate in Autism Intervention and Education I. In this course, students will be introduced to autism, its history, epidemiology, symptoms and behaviors, diagnostic protocols and therapeutic, biomedical and educational intervention options.

**Credit Hours: 3**

## Course Descriptions

### HSRS-140 INTRODUCTION TO ASD RESEARCH (GEC 4)

**Pre-requisites:** *HSRS 130 Eligible for College Level Math*

**Co-requisites:** *ENGL 101*

This course is designed to provide the beginning researcher with the basic information needed for research in ABA methods of single-subject research designs. Specific focus will be spent on designing, implementing, and evaluating behaviors of people who have been diagnosed with an Autism Spectrum Disorder. Students will gain a basic foundation of withdrawal designs, multiple base line designs, alternating treatment designs and changing criteria designs.

**Credit Hours: 3**

### HSRS-199 SPECIAL TOPICS IN HUMAN SERVICES AND REHABILITATION STUDIES

Special topics course relating to the field of Human Services and Rehabilitation.

**Credit Hours: 1- 3**

### HSRS-200 COMMUNITY RECONNECTION AND NAVIGATING

**Pre-requisites:** *HSRS 107; HSRS 120*

When people are away from community, family, and support systems – then re-enter at a later time – issues are encountered. Navigating systems, connecting with community, is discussed for those with disabilities, deployment, trauma, homelessness, incarceration, commitment, long-term hospitalization experiences. Barriers involving poverty, education, transportation, care systems are identified. Peer supporters, as navigators, explore solutions: finance and benefits sources; forms and laws; and talking with providers. Students apply self-help, social services knowledge, and communication skills.

**Credit Hours: 3**

### HSRS-201 ADVOCACY SKILLS FOR PEER SUPPORT SPECIALISTS

**Pre-requisites:** *HSRS 107; HSRS 221*

Individual and collective advocacy skills are integral to “helping professions” as they work to improve lives, communities, systems. This course supplements peer support core courses by lectures, readings, research, and applied knowledge and skills through an experiential practicum. Students identify issues and learn benefits of group advocacy campaigns. Skill is developed in needs analysis; communication methods; person-centered communication; research; writing effective concern statements; identifying and targeting key decision makers to receive concern statements; negotiation and mediation.

**Credit Hours: 3**

### HSRS-210 INTRODUCTION TO ABA: THE LOVAAS METHOD

**Pre-requisites:** *HSRS 130*

This course is the second in a series of three courses required for the ten credit-hour skill set certificate in Autism Intervention and Education I. This course is an introduction to the landmark research of child psychologist Ivor Lovaas, based on the behavioral principles of B.F. Skinner, in the effective treatment and education of children with autism. Students will learn the techniques of discrete trial teaching as a fundamental component of applied behavioral analysis.

**Credit Hours: 3**

### HSRS-217 PEER SUPPORT SPECIALIST III

**Pre-requisites:** *HSRS 106; HSRS 107*

This course completes the basic peer support skill-set series by providing opportunity to integrate peer recovery supports and psychiatric rehabilitation values. Students apply key recovery concepts; identify treatment model characteristics; become familiar with behavioral health care roles; and conduct an informational interview. Fidelity to common ingredients of consumer operated services and accountability are examined. Students participate in a supervised weekly peer support skills lab; have a field observation experience, and prepare a project of excellence.

**Credit Hours: 4**

### HSRS-220 LEGAL ASPECTS OF AUTISM INTERVENTION, EDUCATION AND SERVICES

**Pre-requisites:** *HSRS 130*

**Co-requisites:** *ENGL 101*

In this course the students will be introduced to the legal aspects associated with a child's diagnosis of autism. Accessing services and funding through state Early Intervention and federal Title XIX MR/DD Community-Based Waiver programming, public school services required by the Individuals with Disability Education Act (2004 reauthorization), and vaccine injury causes of action will be addressed. Students will learn skills necessary to apply for and secure funding, and to prosecute causes of action regarding a FAPE. Disclaimer: this course is not intended to give legal advice, but simply to provide information about accessing services.

**Credit Hours: 3**

### HSRS-221 PSYCHIATRIC REHABILITATION II

**Pre-requisites:** *HSRS 120, HSRS 123*

Second in the Psychiatric Rehabilitation curriculum sequence, this course offers students training in Psychiatric Rehabilitation Readiness Assessment. Through supervised practice, students alternate in roles of practitioner and participant with other students. Psychiatric rehabilitation skills, such as inferring need and validating commitment to change, are demonstrated. This "hands-on" approach, from two perspectives, strengthens students' personal development as they learn the skills of facilitating the development of others. Ongoing development of effective interpersonal skills is emphasized.

**Credit Hours: 3**

### HSRS-222 PSYCHIATRIC REHABILITATION III

**Pre-requisites:** *HSRS 221, Eligible for College Level Math*

Third in the Psychiatric Rehabilitation curriculum sequence, this course offers students training in Psychiatric Rehabilitation Goal Setting and Functional Assessment. Students use connecting skills to help to identify personal criteria and describe alternative environments necessary for choosing a personalized goal. This "hands-on" approach, from two perspectives, strengthens students' personal development as they learn the skills of facilitating the development of others. The on-going development of effective interpersonal skills is emphasized.

**Credit Hours: 3**

### HSRS-223 SYSTEMS AND ACCOUNTABILITY IN BEHAVIORAL HEALTH

**Pre-requisites:** *HSRS 120, ENGL 101*

This course is an overview of the vision, values, principles, and tasks essential for effective leadership in behavioral health services. Students will be introduced to leadership principles and regulations essential to assuring behavioral health systems that are driven by recovery, hope and choice. This course will introduce students to regulations and outcome measurement tools and how they may be used to assess leadership success.

**Credit Hours: 3**

### HSRS-225 PSYCHIATRIC REHABILITATION IV - PRACTICUM

**Pre-requisites:** *Permission of Program Coordinator and ENGL 101 and Any College Level MATH*

Fieldwork experience affording theory-practice and geared towards students' career interests and objectives. Utilization of skills will be performed in local Community Behavioral Health Centers and Social Service agencies. The extended presence of students at these sites will aid the students' understanding of the individual recovery and rehabilitation process of persons with psychiatric and developmental disabilities. (240 hours required on site.) Attendance is required at two 3-hour practicum seminars to address portfolio development. NOTE: The Psychiatric Rehabilitation courses must be taken in sequence.

**Credit Hours: 3**

### HSRS-230 DEVELOPMENTAL DISABILITIES

**Co-requisites:** *HSRS 120*

This course focuses on the basic knowledge, skills, and attitudes necessary for effectiveness as a practitioner in the field of developmental disabilities. NOTE: Observations/ practicum experiences with written and oral reports are required as out-of-class assignments in this course.

**Credit Hours: 3**

### HSRS-231 PSYCHIATRIC DISABILITIES

**Pre-requisites:** *HSRS 120, HSRS 126, ENGL 101*

This course provides an in-depth overview of the field of services to persons with psychiatric disabilities and its specialized technical skills. NOTE: Students are expected to participate in project learning and CPRP test preparation.

**Credit Hours: 3**

### HSRS-232 SUBSTANCE ABUSE DISORDERS

**Pre-requisites:** *HSRS 120*

The focus of this course is to provide an in-depth understanding of the nature of addiction to various psychoactive substances and its treatment. NOTE: Observation/ practicum experiences with written and oral reports are required as out-of-class assignments in this course.

Credit Hours: 3

### HSRS-233 ASSESSMENTS IN ASD

**Pre-requisites:** *HSRS 130, HSRS 140, HSRS 210, Eligible for College Level Math*

**Co-requisites:** *ENGL 101*

This course is designed to teach how Functional Behavior Analysis Therapy is effective in problem-behaviors such as aggression, self-injury, stereotypical behavior, tantrums, and non-compliance. This course will focus on target behaviors in special and general education settings, institutions, residential facilities and homes. Students will gain the knowledge of how FBA is implemented in determining proper diagnosis of Autism Spectrum Disorders (ASD) and preparing appropriate behavior plans to introduce, change or eliminate behaviors.

**Credit Hours: 3**

### HSRS-234 TREATMENTS IN ASD

**Pre-requisites:** *HSRS 233*

**Co-requisites:** *ENGL 101*

This course is designed to provide students with information that is beneficial for families, schools and professionals on selecting and applying effective treatments/interventions to children and youth who have been diagnosed with Autism Spectrum Disorders. Students will gain a basic knowledge of the following: interpersonal relationships, skill-based interventions, cognitive interventions and biological and neurological treatments.

**Credit Hours: 3**

### HSRS-270 ADJUDICATED YOUTH

**Co-requisites:** *HSRS 120*

This course is an introduction to understanding the youthful offender and recognizing specific sub-groups in this population. The course focuses on the skills of assessments, treatment and counseling unique to the Juvenile System as well as the rights of the juvenile offender while in the correctional facility. This course is recommended for those students wishing to become a Correctional Counselor or who wish to work with children in agencies affiliated with the judicial system.

**Credit Hours: 3**

### HSRS-271 CHILDHOOD PSYCHIATRIC DISORDERS

**Co-requisites:** *HSRS 120, ENGL 101*

Childhood Psychiatric Disorders vary in nature. An objective of this course is to provide students a familiarity with the symptoms and treatments for various disorders, while also providing a knowledge base for the understanding of non-medical needs and issues. The focus of this course is for students to be able to use the Diagnostic and Statistical Manual of Mental Disorders (DSM 5) as an investigative path for on-going understanding of disorders first diagnosed in childhood and adolescence.

**Credit Hours: 3**

### HSRS-272 TRAUMA INFORMED SUPPORT AND COMPASSION FATIGUE

**Pre-requisites:** *HSRS 107 or HSRS 221*

This course presents trauma-informed principles of assessment, consumer-run services, and creating safe environments. Students discuss compassion fatigue as it relates to Peer Support Specialists and other professionals serving vulnerable populations often experiencing crisis. Students recognize trauma and compassion fatigue signs and advocate for symptom relief through coping and self-nurturing skills. Unrecognized compassion fatigue, secondary trauma, affects resilience, motivation, attitude and performance of supporters. Awareness is raised about self-care while caring for others in need.

**Credit Hours: 3**

### HSRS-280 PRACTICUM: PEER RECOVERY SUPPORT SERVICES

**Pre-requisites:** *HSRS 217; HSRS 121; HSRS 201; HSRS 123; HSRS 293; ENGL 101 and Any College Level MATH; permission of Program Coordinator.*

Through this course, students have opportunity to utilize peer support theory and practice geared toward their individual career interests and objectives through a community-based 250 hour practicum. Students apply strengths-based, culturally aware, knowledge and skills from prior academic coursework while drawing on life experience insights. They role-model commitment to inspiring hope and promoting recovery. Attendance is required at three, two-hour, practicum seminars: Ethics & Values; State Certification (Specialist, Coach, Advocate); and Portfolio Development.

**Credit Hours: 3**

### HSRS-283 PRACTICUM I: HOME-BASED PROGRAMMING

**Pre-requisites:** *HSRS 130, HSRS 210, Permission of Program Coordinator AND ENGL 101 and Any College Math*

Students are afforded a practicum experience, under the guidance of an ABA therapist, in the home (or non-school) environment of a child with a diagnosis of an autism spectrum disorder. Students are expected to utilize the knowledge and skills acquired in HSRS 130, Introduction to Autism and HSRS 210, Introduction to Applied Behavioral Analysis, in providing supervised, direct, one-to-one ABA discrete trial teaching. Students will log 120 hours of clinical time, under a preceptor, in 2-5 hour increments (a minimum of 10 hours per week) during the course of the semester.

**Credit Hours: 3**

### HSRS-285 PRACTICUM II: SCHOOL-BASED PROGRAMMING

**Pre-requisites:** *HSRS 130, HSRS 210, HSRS 220, HSRS 280, Permission of Program Coordinator AND ENGL 101 and Any College Math*

This course completes the requirements for the six-credit hour Skill Set Certificate in Autism Intervention and Education II. Students are afforded a practicum experience, under the guidance of an ABA therapist, in the school (public or private) environment of a child with a diagnosis of an autism spectrum disorder. Students are expected to utilize the knowledge and skills acquired in HSRS 130 Introduction to Autism, HSRS 210 Introduction to Applied Behavioral Analysis, and HSRS 283 Practicum I: Home-Based Programming in providing direct, supervised, one-to-one ABA and discrete trial teaching. Students will log 120 hours of clinical time, under a preceptor, in 2-5 hour increments (a minimum of ten hours per week) during the course of the semester.

**Credit Hours: 3**

### HSRS-288 GROUP DYNAMICS

**Pre-requisites:** *HSRS 120*

This is the first of two courses that are designed to teach students effective group leadership skills within the group process. Emphasis is placed on the role of an effective leader within the group setting. Exploration of the dynamics of change as it applies to group functions. Analysis of group stages and emphasis on importance of developing and planning group plans. Ethical guidelines that govern the establishment and maintenance of effective group dynamics are explored.

**Credit Hours: 3**

### HSRS-290 INTAKE, ASSESSMENT AND DIAGNOSIS IN ADDICTIONS

**Co-requisites:** *HSRS 232, ENGL 101*

This course teaches the rationale, process, and procedures for completion of a professional biopsychosocial assessment, a diagnosis, and a treatment plan for adolescents and adults with addiction disorders. Implications of chemical dependency on the family are addressed.

**Credit Hours: 3**

### HSRS-291 WRAP® SEMINAR II: FACILITATORS TRAINING

**Pre-requisites:** *HSRS 121; HSRS 107 or permission of Program Coordinator*

WRAP® Seminar II applies Copeland Center standards to equip students with skills; values and ethics; resources. An experiential learning environment, based on mutuality and self-determination, participants interactively demonstrate experience with WRAP®. Seminar II is for Peer Support Specialists and others wanting to lead Mental Health Recovery and WRAP® groups; work with others to develop a WRAP®; and present on recovery issues to groups, organizations. Students are expected to have working WRAP® knowledge, demonstrate four practice elements, and share experiential knowledge of how WRAP® works. Limited to 16.

**Credit Hours: 3**

### HSRS-292 REHABILITATION CASE MANAGEMENT

**Pre-requisites:** *HSRS 120, HSRS 123, HSRS 221, ENGL 101*

**Co-requisites:** *HSRS 222*

This case management model has a recovery and rehabilitation focus. This course teaches students the purpose, process, objectives, and core case management activities needed to access resources and services, within a planned framework, for people with psychiatric and addictive disorders.

**Credit Hours: 3**

### HSRS-293 FAMILY AND ADDICTION

**Pre-requisites:** *HSRS 120*

This is an introduction course presenting the family as a dynamic system focusing on the effects of addiction on family roles, rules, and behavior patterns. The addition effects of mood-altering substances, behaviors, and therapeutic alternatives as they relate to the family from a multicultural and trans-generational perspectives.

**Credit Hours: 3**



### HSRS-294 TREATMENT AND SUPPORTS FOR ADDICTION

**Pre-requisites:** *HSRS 120, HSRS 232*

This course will explore the scope of professional and self-help services available for persons with addiction disorders. Prevailing and controversial models, along with their scientific and philosophical underpinnings, will be examined, compared, and contrasted.

**Credit Hours: 3**

### HSRS-296 ADDICTIONS WITH CO-OCCURRING DISORDERS

**Pre-requisites:** *HSRS 120, HSRS 232, Eligible for ENGL 101*

Students examine the special characteristics and service needs of persons experiencing addiction related disorders and other mental disorders simultaneously. A particular focus is given to the need for integrated treatment to address the person as a whole, avoiding the pitfalls of service "siloing".

**Credit Hours: 3**

### HSRS-297 MOTIVATIONAL INTERVIEWING FOR ADDICTIONS

**Pre-requisites:** *HSRS 120, HSRS 222, HSRS 232, Eligible for ENGL 101*

This course is an introduction to the spirit, principles, and techniques of Motivational Interviewing, a counseling technique for exploring and resolving ambivalence regarding health behavior change.

**Credit Hours: 3**

### HSRS-298 CLINICAL PRACTICE ADDICTIONS

**Pre-requisites:** *Permission of Program Coordinator, ENGL 101, Any College Level Math*

Students engage in a three hundred (300) hour clinical experience at a chemical dependency facility. Students will be afforded the opportunity to complete clinical practice and increase their competency in the addictions counseling domains while fulfilling the practicum experience requirements mandated by the state certification board. Ongoing supervision will be given by a qualified staff member on site and a faculty member off site. Students will be interviewed by the Program Coordinator and the Clinical Coordinator to determine eligibility and suitability of placement. Students are required to submit to a drug screening and background check prior to placement.

**Credit Hours: 4**

### HSRS-299 SPECIAL TOPICS IN HUMAN SERVICES AND REHABILITATION STUDIES

Special topics course relating to Human Services and Rehabilitation Studies.

**Credit Hours: 1-3**

## HWAY

### Highway Engineering Technology

#### HWAY-101 TECHNICIAN ORIENTATION

This course is comprised of a one-day workshop held on campus and an 8-week online course. The purpose of this course is to introduce the new student to the college and to familiarize them with the processes needed to be successful and productive online students.

**Credit Hours: 1**

### HWAY-102 HEAVY CONSTRUCTION METHODS

**Pre-requisites:** *HWAY 104*

**Co-requisites:** *HWAY 103 or permission of Program Coordinator*

This course will deal with the earthwork involved in the construction of the highway subgrade. The focus will be on earthwork operations and equipment. Topics include soil characteristics, lab and field controls, determination of highway earthwork quantities, and estimating equipment production rates. Web-based course.

**Credit Hours: 3**

### HWAY-103 CONSTRUCTION INSPECTION I

**Co-requisites:** *HWAY 101 or permission of Program Coordinator*

This course will provide the construction inspector with an overview of the fundamentals in bridge and highway inspection. It deals with the role of the inspector and introduces aspects of record keeping and required reports, material quantity calculations and payment, and other related topics. The current edition of the WVDOH Construction Manual will be used as a primary resource. Web-based course.

**Credit Hours: 3**

### HWAY-104 PLANS AND SPECIFICATIONS

**Co-requisites:** *HWAY 101 or permission of Program Coordinator*

This course is intended to enable the technician to interpret and understand plans and specifications used in highway construction. It will involve a comprehensive coverage of the most current edition of the Standard Specifications for Roads and Bridges with Supplementals, and the WVDOH Standard Details books. Web-based course.

**Credit Hours: 3**

### HWAY-105 WORK ZONE TRAFFIC CONTROL

**Co-requisites:** *HWAY 101 or permission of Program Coordinator*

The purpose of this course is to familiarize the student with National and State requirements for highway safety and efficiency by providing for the orderly movement of all road users on streets and highways throughout the Nation and State. Web-based course.

**Credit Hours: 3**

### HWAY-106 ETHICS AND PROFESSIONALISM (GEC 3)

**Co-requisites:** *HWAY 101 or permission of Program Coordinator*

This course will provide the technician an overview of the topics of Ethics, Professionalism, and Risk Management. Investigation into ethical issues and decision making within the technical field. Procedures for professionalism while working in the transportation industry will be included. History, theory, and current situations will bring awareness to the student of just how Ethics, Professionalism, and Risk Management fit into the work/life commitment. Web-based course.

**Credit Hours: 3**

### HWAY-115 BRIDGE INSPECTION I

This course will provide the bridge inspector with an overview of the fundamentals in bridge and highway inspection. It deals with the role of the inspector and introduces aspects of record keeping and required reports, material, damage and repair quantity calculations. The current editions of the WVDOH Bridge Inspection Manual and the FHWA Bridge Inspector's Reference Manual will be used as primary resources.

**Credit Hours: 3**

### HWAY-120 GEOLOGY FOR TECHNICIANS

A basic geology course that deals with the structure of Earth and the nature and classification of earth materials. The course emphasizes the dynamic processes that shape the earth, and the results of those processes. Topics include rocks and minerals, weathering, the hydrologic cycle, erosion, deposition, mountain building, metamorphism, volcanism, and earthquakes. Web-based course.

**Credit Hours: 2**

### HWAY-140 HIGHWAY BRIDGE CALCULATIONS

**Pre-requisite(s):** *MATH-115, HWAY-115*

This course provides the construction or bridge inspector working in the field with an overview of the fundamentals in bridge and highway calculations. It deals with locating data and performing calculations needed for material quantities, structural loadings, section loss and other related topics. Record keeping and data collection are included.

**Credit hours: 3**

### HWAY-150 STRUCTURES I

**Pre-requisites:** *MATH 115*

Topics include force and moments, resultants, concentrated and distributed loads, free-body diagrams systems of forces on simple structures in equilibrium, with a review of trigonometry.

Credit hours: Web-based course.

**Credit Hours: 3**

### HWAY-202 HEAVY CONSTRUCTION METHODS II

**Pre-requisites:** *HWAY 102, MATH 115*

This course is a continuation of HWAY 102. The focus will be on pavement construction methods and placement of materials and assembly of components used in highway structures and drainage systems. Construction safety and aspects of construction management will be included. Web-based course.

**Credit Hours: 3**

### HWAY-203 CONSTRUCTION INSPECTION II

**Pre-requisites:** *HWAY 103*

This course is a continuation of HWAY-103. Emphasis will be placed on proper documentation of records and reports, material quantity calculations and payment, and other related topics in accordance with WVDOH requirements. The current WVDOH Construction Manual will be used as a primary resource. Web-based course.

**Credit Hours: 3**

### HWAY-207 EROSION AND SEDIMENT CONTROL

**Pre-requisites:** *HWAY 102, HWAY 103 or permission of instructor*

This course introduces the student to the basic concepts and fundamental theories of temporary erosion and sediment control features. Design, construction, and maintenance of the sediment control plan and NPDES permitting requirements will be included. Emphasis will be on local, state, and federal regulations for erosion and sediment control. Web-based course.

**Credit Hours: 3**

### HWAY-215 BRIDGE INSPECTION II

**Pre-requisites:** *HWAY 115*

This course is a continuation of HWAY-115. Emphasis will be placed on proper documentation of records and reports, material, damage, and repair quantity calculations, and other related topics in accordance with the National Bridge Inspection Standards (NBIS) and WVDOH requirements. The current editions of the WVDOH Bridge Inspection Manual and the FHWA Bridge Inspector's Reference Manual will be used as primary resources.

**Credit Hours: 3**

### HWAY-221 HIGHWAY SURVEYING

**Pre-requisites:** *MATH 115 or higher or permission of instructor*

This course deals with the surveying operations associated with highway construction. This course will cover basic surveying equipment, the techniques employed to obtain acceptable elevations and linear and angular measurements and the use of proper format for recording of field notes and related calculations. Lecture portions of the course will be web-based. Lab portion of the course will consist of hands-on use of surveying equipment.

**Credit Hours: 3**

### HWAY-240 CONSTRUCTION CALCULATIONS

**Pre-requisites:** *MATH 115 or permission of instructor*

This course will provide the construction or bridge inspector working in the field with an overview of the fundamentals in bridge and highway calculations. It deals with locating data and performing calculations needed for material quantities, structural loadings, section loss, and other related topics. Record keeping and data collection are included.

**Credit Hours: 3**

### HWAY-250 STRUCTURES II

**Pre-requisites:** *HWAY 150*

A continuation of HWAY 150. Study of equilibrium of simple trusses and basic analysis of stresses and strains on structural components. Centroids and moments of inertia, shear bending moments, and displacements. Web-based course.

**Credit Hours: 3**

### HWAY-252 STRUCTURES III

**Pre-requisites:** *HWAY 250*

The fundamentals of analysis and design of structural members in steel and concrete and their relationship to bridge design and construction. Bridge loading and load rating, reference to appropriate codes and specifications, selection of structural members, connections, concrete reinforcement.

**Credit Hours: 3**

### HWAY-255 BRIDGE INSPECTION CERTIFICATION / REVIEW

**Pre-requisites:** *HWAY 215, HWAY 250 or permission of instructor*

Credit hours awarded for successful passage of the Safety Inspection of In-Service Bridges course by the National Highway Institute, and any introductory or review sessions included. Capstone course.

**Credit Hours: 3**

### HWAY-299 SPECIAL TOPICS: HET (COURSE HOURS VARY)

**Pre-requisites:** *HWAY 215, HWAY 250 or permission of instructor*

This course is used to transfer credit hours from other institutions or training programs within a specialized field of study that is applicable to the Highway Engineering Technician Degree. This course may be substituted into the curriculum when certain learning outcomes have been obtained and documented. This course may be substituted as an elective course based on application to the degree.

**Credit Hours: 3**

## HUMN

### Humanities

### HUMN-101 INTRODUCTION TO HUMANITIES (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

This course focuses on basic human achievements as expressed in art, philosophy, music, religion, and literature throughout history.

**Credit Hours: 3**

### HUMN-103 PERFORMANCE ARTS AS CULTURE (GEC 3)

The purpose of this course is to enhance one's understanding of diverse countries and peoples nationwide and globally by exploring the connections between cultures in the development of music, dance, theater, and other performance arts.

**Credit Hours: 3**

### HUMN-205 APPALACHIAN CULTURE AND HISTORY (GEC 3)

**Pre-requisites:** *ENGL-101 with a C or better*

This course emphasizes the study of Appalachia and its culture and history. It will be an overview that will include the history of the region and its cultures and customs. Dual-listed as HIST 205.

**Credit Hours: 3**

### INFT

#### Information Technology

#### INFT-110 COMPUTER ARCHITECTURE AND TROUBLESHOOTING

An introduction to current information technology hardware, operating systems and system troubleshooting. This course is designed to prepare students for Comp TIA A+ certification examinations.

**Credit Hours: 4**

#### INFT-121 NETWORK OPERATING SYSTEMS

**Pre-requisites:** *INFT 110 or A+ Certification or Instructor's Permission*

An introductory course covering the implementation; configuration and administration of network servers and operating system designed to prepare students for the CompTIA Server+ certification exam.

**Credit Hours: 3**

#### INFT-131 NETWORKING I

**Pre-requisites:** *ENGL-095*

An introduction to networking fundamentals; hardware and operating systems; terminology; topologies and protocols; local area networks (LANs); and wide area networks (WANs).

**Credit Hours: 4**

#### INFT-132 NETWORKING II

**Pre-requisites:** *INFT 131*

A continuation of networking fundamentals focusing on medium size business and ISP related topics in network design, configuration, Network Address Translation, IPv4/6, subnetting, and troubleshooting to prepare student for the CISCO CCENT certification.

**Credit Hours: 4**

#### INFT-228 WEB SERVER ADMINISTRATION

**Pre-requisites:** *INFT 121 or Instructor permission*

An introductory course with an in-depth study of the methods, applications, scripting, SQL, HTML standards, security, and e-commerce issues related to Web server setup, administration, and maintenance using various operating system platforms.

**Credit Hours: 4**

#### INFT-231 NETWORKING III

**Pre-requisites:** *INFT 132*

A study of designing hierarchical networks that are scalable using Cisco IOS with appropriate switch and routing hardware features and configurations to support small to medium-sized business networks. This course is the third in a series of Cisco courses leading to the Cisco CCNA certification.

**Credit Hours: 4**

### INFT-232 NETWORKING IV

**Pre-requisites:** *INFT 231*

A study of engineering principles for designing hierarchical networks with current networking and configuration standards conducive to connecting large scale networks to the WAN, Point-to-point, and site-to-site using broadband solutions. This course is the fourth in a series of Cisco courses leading to the Cisco CCNA certification.

**Credit Hours: 4**

### INFT-241 NETWORKING V

**Pre-requisites:** *INFT 231, CCNA certification or Instructor permission*

A course in implementing, monitoring, and maintaining routing services in an enterprise network. This is the first course in a three course sequence to prepare students for the CCNP certification.

**Credit Hours: 4**

### INFT-242 NETWORKING VI

**Pre-requisites:** *INFT 241 or Instructor permission*

A course in implementing, monitoring, and maintaining switching in converged enterprise campus networks. This is the second course in a three course sequence to prepare students for the CCNP certification.

**Credit Hours: 4**

### INFT-243 NETWORKING VII

**Pre-requisites:** *INFT 242 or Instructor permission*

A course in monitoring and maintaining complex enterprise routed and switched IP networks. This is the third course in a three course sequence to prepare students for the CCNP certification.

**Credit Hours: 4**

### INFT-260 DISASTER RECOVERY

**Pre-requisites:** *ISST 250 or Instructor permission*

This course presents methods to identify risk and vulnerabilities, to develop plans, policies, and procedures which implement an appropriate countermeasure to prevent or mitigate incidents that affect business recovery and continuity.

**Credit Hours: 3**

### INFT-280 INTRODUCTION TO DATABASE SYSTEMS

**Pre-requisites:** *None*

Intro to Database Systems is an introduction to the properties and design principles of relational databases. Topics include database terms, entity relationship modeling, relational table design and normalization, Structured Query Language (SQL), the database life cycle, and the management systems that control them. Laboratory work emphasizes database design and implementation.

**Credit Hours: 3**

## Course Descriptions

### INFT-290 PROJECT MANAGEMENT <sup>(GEC-4)</sup>

**Pre-requisites:** *INFT 131 or Instructor Permission*

**Co-requisites:** *ENGL 101*

This course focuses on the theory, concepts, tools, and techniques used to implement and manage successful information technology projects using Project Management Body of Knowledge standards for managing projects. Topics include: planning, scheduling and staffing, and control, administration, analysis, and reporting procedures. Project management software will be introduced.

**Credit Hours: 3**

### INFT-295 SEMINAR

**Pre-requisites:** *Department chair permission*

Seminar course for graduating students. Topics include review for certification assessments, exit assessments and career preparation.

**Credit Hours: 1**

### INFT-298 INFORMATION TECHNOLOGY PRACTICUM

**Pre-requisites:** *Department chair permission*

Special assignment in the Information Technology field. Students must make a final presentation and submit a reflective writing assignment based on the field experience. A designated field supervisor and a faculty coordinator will oversee the field experience. A designated field supervisor and a faculty coordinator will oversee the field experience.

**Credit Hours: 1-3**

### INFT-299 SPECIAL TOPICS IN INFORMATION TECHNOLOGY

**Pre-requisites:** *Department chair permission*

Selected studies in Information Technology.

**Credit Hours: 1-4**

## INST

### Instrumentation Technician Internship

### INST-112 INSTRUMENTATION DEVICES AND CALIBRATION

**Pre-requisites:** *PWPT 202*

This course will introduce the tools, methods, standards, and hardware used to install instrumentation loops and system using standards and layouts identified on engineering drawings and documents. This course will familiarize students with the variety of test equipment used by process instrumentation and control technicians including multimeters, calibrators and fieldbus communicators as well as calibration of analog and digital instruments for flow, pressure, temperature, level and analytical measurements.

**Credit Hours: 3**

### INST-211 ADVANCED INSTRUMENTATION

**Pre-requisites:** *PWPT 202*

A continuation of Instrumentation and Controls emphasizing advanced topics of measurement of level, flow, pressure and temperature. Other topics include analyzers, safety systems, automatic control, communication, position measurement and final control elements.

**Credit Hours: 3**



### INST-213 PROCESS CONTROL LOOP TROUBLESHOOTING (GEC 4) (CAPSTONE)

**Pre-requisites:** *Permission of Program Coordinator*

This course presents the knowledge needed to effectively troubleshoot process instrumentation and control systems. This knowledge is applied using troubleshooting activities in a laboratory environment to begin the student's experience base needed for a successful process instrumentation and control technician career. Prior instrumentation courses' content are reviewed in preparation for the Control Systems Technician (CST) Associate Exam. Course also includes preparations for employment, review of the General Education Portfolio.

**Credit Hours: 3**

### INST-214 DISTRIBUTED CONTROL SYSTEMS AND NETWORKS

**Pre-requisites:** *INST-112*

This course introduces concepts and application of distributed control system including the role of computers and programmable logic controllers(PLCs), hardware and software, architecture, human machine interface(HMI) and computer interfaces. HART and foundation fieldbus communication protocols are introduced. Hands on activities include use of the handheld Emerson 475 communicator.

**Credit Hours: 2**

### INST-218 FINAL CONTROL ELEMENTS

**Pre-requisites:** *PWPT-202*

This course is a study of the various designs of final control elements including control valve disassembly, assembly, calibration, troubleshooting, and required documentation. It includes instruction in basic techniques and calculations for proper valve sizing. Topics will include louvers, dampers, metering pumps, valve selection and an introduction to variable frequency drives as a final control element.

**Credit Hours: 3**

### INST-251 PROCESS INSTRUMENTATION TECHNICIAN INTERNSHIP

**Pre-requisites:** *Completion of third semester courses and permission of the Process Instrumentation Technology Program Coordinator.*

The Process Instrumentation Technician Internship will take place at a process plant in the chemical, energy, oil and gas or water/wastewater industries. Work will be performed at the plant and compensation will be given by the employer. The work experience will be completed on the job for sixteen (16) weeks performing instrumentation related activities. Actual hours and shift schedule will be determined by the employer. Students will be evaluated jointly by employees of the plant and an instructor from the Process Instrumentation Technology Program. Students must register for the course to receive credit.

**Credit Hours: 3**

### ISST

#### Cyber Security Technology

##### ISST-250 SECURITY FUNDAMENTALS

**Pre-requisites:** *INFT 110, INFT 131 or Instructor permission*

An introduction to network security designed to prepare students for the CompTIA Security+ certification exam. This course covers current methods in securing computers and networks using stand access control methods including encrypted data transfer, protocols, and organizational security practices.

**Credit Hours: 3**

##### ISST-252 NETWORK SECURITY

**Pre-requisites:** *INFT 231 and ISST 250, CCNA certification or Instructor permission*

An introduction to network security principles, tools and configurations. This course prepares students for the Cisco CCNA Security certification exam.

**Credit Hours: 4**

##### ISST-262 COMPUTER FORENSICS

**Pre-requisites:** *INFT 110, ISST 250, or Instructor permission*

This course is a study of the collection, preservation and analysis of digital data for recovery, system evaluation and evidentiary purposes. Topics include: data recovery in a variety of OS environments; intrusion detection, damage assessment, metadata; computer investigations; crime scene processing; evidence acquisition; evidence management and expert witnessing.

**Credit Hours: 4**

### MACH

#### Machine Tool Technology

##### MACH-121 BLUEPRINT READING

An introduction to mechanical blueprint reading for machining. Topics include: projections, line types, auxiliary views, sectional views, dimensioning, geometric dimensioning and tolerancing, casting details, welding details, sketching and applications to layout.

**Credit Hours: 2**

##### MACH-123 PRECISION MEASUREMENT AND QUALITY ASSURANCE

An introduction to precision measurement devices and techniques as well as basic machining quality assessments. Topics include: systems of measurement; rules; vernier, dial and digital direct measurement instruments; micrometers; indirect measurements; gage blocks; angular measurement devices; tolerances; fits; geometric dimensions and statistical process control (SPC).

**Credit Hours: 2**

##### MACH-125 ADVANCED MEASUREMENT

An introduction to industry standard hardware and software used for 3-dimensional measurement of components and parts. Students learn how to use a coordinate measuring machine to enhance inspection speed, confidence and accuracy.

**Credit Hours: 1**

### MACH-131 INTRODUCTION TO MACHINING

**Co-requisites:** MACH 121, MACH 123

This course provides an introduction to a variety of machining processes common to the machining industry. Topics include safety, process-specific machining equipment, measurement devices, set-up and layout instruments, and common shop practices. Upon completion, students should be able to safely demonstrate basic machining operations, accurately measure components, and effectively use layout instruments.

**Credit Hours: 4**

### MACH-141 METALLURGY AND MACHINING THEORY

A survey of materials, their physical properties and the theoretical and practical aspects of machining processes on materials. Topics include ferrous and non-ferrous materials, mechanical and physical properties, material selection, material identification, hardening, tempering, annealing, stress relief, machinability, effects of machining, chip formation, abrasives, cutting fluids, grinding fluids, tooling, and tooling materials.

**Credit Hours: 2**

### MACH-151 MANUAL MACHINE TOOL - GRINDING AND POLISHING

**Co-requisites:** MACH 141

An introduction to grinding processes with laboratory applications. Topics include selection and identification of grinding wheels, truing, dressing, balancing, grinding fluids, spindle grinders, surface grinders, grinding processes, lapping, polishing and safe operating practices.

**Credit Hours: 2**

### MACH-153 MANUAL MACHINE TOOL - MILLING

**Co-requisites:** MACH 141

An introduction to milling processes with applications. Topics include: milling processes; work-holding methods; cutter identification, selection and use; speeds and feeds; adapters; tool holders; safe operating practices and applications.

**Credit Hours: 2**

### MACH-155 MANUAL MACHINE TOOL - TURNING

**Co-requisites:** MACH 141

Introduction to turning processes with applications. Topics include lathe elements and setup; work-holding methods; tooling selection; tool holders; speeds and feeds; facing, drilling, boring, knurling and threading; part inspection; safe operating practices and applications.

**Credit Hours: 2**

### MACH-191 NIMS CREDENTIALING – MANUAL MACHINE TOOL

**Pre-requisites:** *Instructor permission*

A project based class focused on National Institute of Metalworking Skills (NIMS) credentialing. Topics include an introduction to the NIMS credentialing system and preparation for Level I Machining certifications for manual machine processes. Emphasis on NIMS credentialing projects.

**Credit Hours: 3**

## Course Descriptions

### MACH-261 CNC MACHINE TOOL – INTRODUCTION TO PROGRAMMING

**Pre-requisites:** *Instructor permission*

An introduction to CNC machining focusing on programming. Topics include introduction to CNC operation, equipment setup, coordinate systems and G-code programming with a focus on simulation.

**Credit Hours: 4**

### MACH-263 CNC MACHINE TOOL – SETUP AND OPERATION

**Pre-requisites:** *MACH 261*

A hands-on introduction to CNC mill and lathe operations. Topics include machine setup; coordinate systems; tooling selection.; tool offsets; setting zero; part set up; program setup, editing and execution; tool wear compensations and applications.

**Credit Hours: 4**

### MACH-271 INTRODUCTION TO CAD AND 3D MODELING

**Pre-requisites:** *MACH 121 or instructor permission*

An introduction to 2D and 3D computer-aided drafting and modeling. Topics include drawing standards, multi-view, sections, and auxiliary views; dimensioning, geometric and tolerancing, use of 2D CAD software, introduction to 3D solid modeling and the use of 3D CAD software.

**Credit Hours: 4**

### MACH-275 COMPUTER-AIDED MANUFACTURING

**Pre-requisites:** *MACH 271 or instructor permission*

An introduction to CNC programming via the CAD/CAM tool chain. Topics include: 3D model creation and geometry specification; use of CAM software packages; tool selection; tool path verification and post-processing with an emphasis on lab exercises and projects.

**Credit Hours: 4**

### MACH-281 THEORY, MAINTENANCE AND TROUBLESHOOTING

**Pre-requisites:** *MATH 115*

An introduction to the theory and maintenance of mechanical and electromechanical systems. Topics include basic fundamentals of mechanical drive systems, principles of hydraulics and pneumatics; fasteners, bushings bearings, lubrication; basic electrical theory, electrical and mechanical measurements; preventive maintenance; analysis of results and the troubleshooting process.

**Credit Hours: 3**

### MACH-292 NIMS CREDENTIALING – CNC MACHINE TOOL

**Pre-requisites:** *MACH 275 or instructor permission*

A project based class focused on National Institute of Metalworking Skills (NIMS) credentialing. Students must pass the NIMS Machining Level I CNC performance and theory certification exams. Emphasis on NIMS CNC credentialing projects.

**Credit Hours: 3**

### MACH-299 SPECIAL TOPICS: MACHINING

**Pre-requisites:** *Instructor permission*

Special topics in machining.

**Credit Hours: Variable**

### MATH

#### Mathematics

##### MATH-010 APPLIED TECHNICAL MATH SEMINAR

**Pre-requisites:** *ACT Math 14-18 or Accuplacer Arithmetic 40-84.*

**Co-requisites:** *Students must co-enroll in MATH 115*

This course provides support and enhancement for MATH 115.

**Credit Hours: 2**

##### MATH-011 APPLIED MATH FOR HEALTHCARE SEMINAR

**Pre-requisites:** *ACT Math 14-18 or Accuplacer Arithmetic 40-84.*

**Co-requisites:** *Students must co-enroll in MATH 111.*

This course provides support and enhancement for MATH 111.

**Credit Hours: 2**

##### MATH-012 APPLIED MATH FOR BUSINESS SEMINAR

**Pre-requisites:** *ACT Math 14-18 or Accuplacer Arithmetic 40-84.*

**Co-requisites:** *Students must co-enroll in MATH 112 or BUSN 112.*

This course provides support and enhancement for MATH 112 and BUSN 112.

**Credit Hours: 2**

##### MATH-013 APPLIED MATH REASONING SEMINAR

**Pre-requisites:** *ACT Math 14-18 or Accuplacer Arithmetic 40-84*

This course provides support and enhancement for MATH 113.

**Credit Hours: 2**

##### MATH-060 BRIDGE TO ALGEBRA

**Pre-requisites:** *ACT Math 15-18 or Accuplacer Elementary Algebra 43-83.*

This course provides students with a review of basic algebra in preparation for college-level algebra courses. Topics include solving linear equations and inequalities, formulas and application problems, graphing, equations of lines, slopes, functions, polynomials (simplifying, performing operations, and factoring), scientific notation, and complex number systems.

**Credit Hours: 4**

##### MATH-111 MATH FOR HEALTH CARE <sup>(GEC-2)</sup>

**Pre-requisites:** *ACT Math 19 or Accuplacer Arithmetic 85.*

**Co-requisites:** *MATH 011 if required by placement*

Engages students in quantitative mathematics related to health fields. Students will apply skills necessary for real-world situations while demonstrating competencies in measurement and conversion, dosages and intravenous fluid administration, solving equations, and limited statistical applications.

**Credit Hours: 3**

## Course Descriptions

### MATH-112 MATH FOR BUSINESS <sup>(GEC-2)</sup>

**Pre-requisites:** *ACT Math 19 or Accuplacer Arithmetic 85.*

**Co-requisites:** *MATH 012 if required by placement*

Utilization of mathematical operations to solve practical business application problems. The core topics include percentages with applications, banking (check writing, statement reconciliation) cash and trade discounts, markup and markdowns, payroll, interest, notes, present value. Additional topics may include installment buying, mortgages, taxes, insurance, stocks, bonds, analysis of financial statements, treatment of depreciation, and inventory costs.

**Credit Hours: 3**

### MATH-113 MATHEMATICAL REASONING <sup>(GEC-2)</sup>

**Pre-requisites:** *ACT Math 19 or Accuplacer Arithmetic 85 and Accuplacer Elementary Algebra 57*

This course provides students with a survey of basic mathematics, algebra, geometry, and probability and statistics as they apply to solving problems in today's world. Emphasis will be placed on logical thinking, quantitative reasoning, and number sense, in addition to computational skills.

**Credit Hours: 3**

### MATH-115 APPLIED TECHNICAL MATH <sup>(GEC-2)</sup>

**Pre-requisites:** *Math ACT 19 or Accuplacer Arithmetic of 85 or higher*

**Co-requisites:** *MATH 010 if required by placement*

This course is designed to engage students in technical applications of ratios and proportions, unit conversions, measurement, algebra, geometry and trigonometry.

**Credit Hours: 3**

### MATH-125 COLLEGE ALGEBRA EXPANDED <sup>(GEC-2)</sup>

**Pre-requisites:** *ACT Math 19 or Accuplacer Elementary Algebra of 84 or grade of C or better in MATH 060 (recommended for students who passed MATH 085 Introduction to Algebra but have not taken an intermediate algebra course)*

This course will explore the use of algebra to model real world situations and solve problems. Topics emphasized include functions (polynomial, rational, exponential, and logarithmic), equations and inequalities, systems of equations, matrices and conic sections. Supporting topics include factoring techniques, the quadratic formula, rational and radical expressions, and function notation. This College Algebra course is designed to give additional support and review to students who lack a strong background in introductory algebra.

**Credit Hours: 4**

### MATH-130 COLLEGE ALGEBRA <sup>(GEC-2)</sup>

**Pre-requisites:** *ACT Math 21 or Accuplacer Elementary Algebra 108 OR grade of B or better in MATH 060 (recommended for students who have passed an intermediate algebra course with a grade of C or better)*

This course explores the use of algebra to model real world situations and solve problems. Topics emphasized include functions (polynomial, rational, exponential, and logarithmic), equations and inequalities, systems of equations, matrices and conic sections.

**Credit Hours: 3**

## Course Descriptions

### MATH-135 TECHNICAL ALGEBRA

**Pre-requisites:** ACT MATH 19 or Accuplacer Elementary Algebra 84 or higher or satisfactory completion of MATH 060 with a C or better.

Fundamental Algebraic operations; functions and graphs; systems of linear equations; factoring; quadratic equations; exponents and radicals; higher degree equations; determinants; systems of nonlinear equations; matrices; equations in quadratic form and equations with radicals.

**Credit Hours: 3**

### MATH-140 TRIGONOMETRY <sup>(GEC-2)</sup>

**Pre-requisites:** ACT Math 19 or Accuplacer Elem Algebra 84 (Recommended for students who have passed an intermediate algebra course with a grade of C or better).

This course will cover analytical trigonometry; right and oblique triangles; vectors; radians; formulas; identities; trigonometric equations; graph of trigonometric functions and complex numbers.

**Credit Hours: 3**

### MATH-155 TECHNICAL CALCULUS <sup>(GEC-2)</sup>

**Pre-requisites:** MATH 130 (125) and MATH 140 with a C or better; or ACT Math 28 or higher.

This course provides students with a foundation in calculus topics relating to topics in engineering technology fields, including linear functions, conic sections, differentiation and integration of basic forms, and applications of derivatives.

**Credit Hours: 3**

## MECH

### Electrical Mechanical Instrumentation Technology

#### MECH- 105 TECHNICAL CALCULATIONS

This course covers the application of basic mathematical, arithmetic calculations, geometric and trigonometric principles as related to technical problems in electrical, mechanical, pneumatic and hydraulic systems. Word problems involving ratios, proportions, percentages, units of measurement, area and volume calculations, and basic trigonometry principles will be covered as they relate to technical applications.

**Credit Hours: 2**

#### MECH- 120 ELECTRICAL COMPONENTS

This course covers the basics of electrical components in a complex mechatronic system. Based upon a physical system, students will learn the basic functions and physical properties of electrical components, and the roles they play within the system. Technical documentation such as data sheets, schematics, timing diagrams and system specifications will also be covered. By understanding the complete system, the flow of energy through it and measurements on the components, students will learn and apply troubleshooting strategies to identify, localize and (where possible) correct malfunctions. Preventive maintenance and safety issues for electrical components within the system will be discussed.

**Credit Hours: 3**

### MECH- 130 MECHANICAL COMPONENTS AND ELECTRICAL DRIVES

This course covers the basics of mechanical components and electrical drives in a complex mechatronic system. Based upon a physical system, students will learn the basic functions and physical properties of mechanical components as well as electrical drives (AC and DC), and the roles they play within the system. They will also learn about mechanical components which lead and support the energy through a mechanical system to increase efficiency and to reduce wear and tear. Materials, lubrication requirements and surface properties will be examined. Technical documentation such as data sheets and specifications of mechanical elements and electrical drives will also be covered. By understanding the interworkings of the complete system, students will learn and apply troubleshooting strategies to identify, localize and (where possible) correct malfunctions. Preventive maintenance of mechanical elements and electrical drives as well as safety issues within the system will be discussed.

**Credit Hours: 3**

### MECH- 210 PNEUMATICS AND HYDRAULICS CONTROL CIRCUITS

This course covers the basics of pneumatic, electropneumatic and hydraulic control circuits in a complex mechatronic system. Students will learn the functions and properties of control elements based upon physical principles, and the roles they play within the system. Technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts will also be covered. By understanding and performing measurements on the pneumatic and hydraulic control circuits, students will learn and apply troubleshooting strategies to identify, localize and (where possible) correct malfunctions. Preventive maintenance of (electro) pneumatic and hydraulic components as well as safety issues within the system will be discussed.

**Credit Hours: 3**

### MECH- 220 DIGITAL FUNDAMENTALS AND PLC

**Pre-requisites:** *MECH 120*

This course covers the fundamentals of digital logic and an introduction to programmable logic controllers (PLCs) in a complex mechatronic system with a focus on the automation system PLC and software. They will also learn basic elements of PLC functions by writing small programs and testing these programs on an actual system. Students will learn to identify malfunctioning PLCs, as well as to apply troubleshooting strategies to identify and localize problems caused by PLC hardware.

**Credit Hours: 3**

### MECH- 240 MECHATRONICS TROUBLESHOOTING

**Pre-requisites:** *MECH 220*

This class will focus on troubleshooting on a complex mechatronics system. This automated system includes electrical, mechanical, hydraulics, and motor controls circuits; and uses a variety of sensors and safety devices. Upon completion, students will be able to apply troubleshooting techniques to solve problems in a complex mechatronics system.

**Credit Hours: 3**



### MEDC

#### Medical Coding

##### MEDC-101 MEDICAL TERMINOLOGY

Basic medical terminology course which focuses on the many components of a medical term and how to break down a medical term by simply knowing the meaning of the prefix or suffix. It will also emphasize word roots and their combining forms by review of each body system and specialty area, we well as, word construction, spelling, usage, comprehension, pronunciation and common medical abbreviations.

**Credit Hours: 1**

##### MEDC-110 MEDICAL LAW AND ETHICS

This course is an introduction to the concepts of medical law and ethics which focuses on legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed, consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

**Credit Hours: 1**

##### MEDC-150 MEDICAL INSURANCE & BILLING PRACTICES

**Co-requisites:** *MEDC 101*

Basic insurance claims processing, data entry, insurance forms, EOBs, incorporate I-9/I-10 & CPT coding systems for reimbursement of claims; utilizing billing software applications. Charge entry, payment posting, report design, and generation are covered. **Credit Hours: 3**

##### MEDC-199 SPECIAL TOPICS IN MEDICAL CODING

Special topics course relating to medical coding.

**Credit Hours: 1 -3**

##### MEDC-200 MEDICAL CODING

**Pre-requisites:** *ALHL 105 or MEDC 101 (Both are Med Term)*

This course is intended for medical assisting students and will cover the study of diagnostic and procedure codes used by healthcare providers; use of ICD-(9 and 10)-CM and CPT codes for ambulatory care coding will be discussed.

**Credit Hours: 3**

##### MEDC-201 DIAGNOSTIC MEDICAL CODING

**Co-requisites:** *MEDC 101, MEDC 215, BIO 210 OR 220*

This course is designed to introduce the student to ICD-10-CM diagnostic coding with an in-depth study of ICD-10-CM coding conventions and guidelines. Students develop their coding skills using the ICD-10-CM diagnostic coding manual to accurately apply ICD-10-CM codes to exercises and case studies applicable to any clinical setting.

**Credit Hours: 3**

## Course Descriptions

### MEDC-203 PROCEDURAL MEDICAL CODING

**Pre-requisites:** *MEDC 201*

This course is designed to introduce the student to ICD-10-PCS procedural coding with an in-depth study of ICD-10-PCS coding conventions and guidelines. Students develop their coding skills using the ICD-10-PCS coding manual to accurately apply ICD-10-PCS codes to exercises and case studies applicable to any clinical setting.

**Credit Hours: 3**

### MEDC-205 CPT/HCPCS MEDICAL CODING

**Pre-requisites:** *MEDC 101, MEDC 215; BIOL 210 or 220*

This course is designed to introduce the student to CPT/HCPCS procedural coding with an in-depth study of CPT/HCPCS coding conventions and guidelines. Students develop their coding skills using the American Medical Association CPT procedural coding manual to accurately apply CPT/HCPCS codes to exercises and case studies applicable to any clinical setting.

**Credit Hours: 3**

### MEDC-215 HUMAN PATHIOPHYSIOLOGY

**Co-requisites:** *BIOL 220 or BIOL 210*

Course focus is on description of conditions and diseases of the body systems including etiology, physical signs and symptoms, prognosis, complications of commonly occurring diseases and their management. Expected student outcomes include ability to recognize physical signs and symptoms in identifying disease entities and ability to describe appropriate diagnostic and treatment modalities.

**Credit Hours: 2**

### MEDC-240 ADVANCED CODING CONCEPTS

**Co-requisites:** *MEDC 201, MEDC 203, MEDC 205*

This course is advanced coding that uses ICD-10-CM, ICD-10-PCS, and CPT/HCPCS classification systems to apply code set conventions, guidelines, and principles in various combinations, settings, and scenarios. Practice case studies take the student from beginning concepts and selection of codes, through intermediate applications using short code assignment scenarios, to advance case studies that on based on excerpts from health records that require complex clinical analysis skills and multiple code assignments.

**Credit Hours: 3**

### MEDC-250 MEDICAL CODING DIRECTED PRACTICUM

**Pre-requisites:** *MEDC 201(ICD-10-CM)*

**Co-requisites:** *MEDC 203, MEDC 205*

This practicum places the student in a health care facility providing the opportunity for the practical application of classroom knowledge and skills. It is designed to provide students with an opportunity to obtain technical experience under the supervision of competent practitioners in a professional environment.

**Credit Hours: 1**

## Course Descriptions

### MEDC-260 PREPARATION FOR CERTIFIED CODING SPECIALIST (CCS) CERTIFICATION TEST

**Pre-requisites:** *MEDC 201*

**Co-requisites:** *MEDC 203, MEDC 205*

This course prepares students to take the Certification test for Certified Coding Specialist (CCS) through AHIMA. It is designed to provide the ICD-10-CM, ICD-10-PCS, and CPT/HCPCS practice, a student needs to successfully pass CCS certification exam. The practice exams and exercises simulate the exam experience.

**Credit Hours: 1**

## MEET

### Mechanical Engineering Technology

#### MEET-121 MANUFACTURING PROCESSES I

**Co-requisite(s):** *DRFT-120; or MATH-040/041 or ACT math score 18*

An introductory course combining the machine tool field with the welding and casting fields. A basic working knowledge of the terminology and processes used in both machine tools and welding fields. Laboratory experience on lathes, grinders, milling machines, shapers, and drills in the machine tool area; and welding and casting. Special projects are produced in both lab and class.

**Credit Hours: 3**

#### MEET-122 MANUFACTURING PROCESSES II

**Pre-requisite(s):** *MEET-121*

**Co-requisite(s):** *MATH-113*

An advanced course in the production and manufacturing systems, process capability, quality control; Computer Numerical Control machines, casting processes, milling machines, ferrous and non-ferrous metallurgy, heat and surface treatment of metals, inspection, and safety are also covered. Special class and lab projects incorporate production operations.

**Credit Hours: 3**

#### MEET-225 MECHANICAL DESIGN I

**Pre-requisite(s):** *DRFT 120, MATH 113, MATH 114, MEET 121 or permission of instructor*

**Co-requisite(s):** *CIET-115*

A course in mechanical component terminology, specification, and integration. The following will be covered; couplings, clearance and interference fits, V-Belts, HTD drives, keys and keyways, sprocket drive systems, gears, and bearings.

**Credit Hours: 3**

#### MEET-226 MECHANICAL DESIGN II

**Pre-requisite(s):** *MEET 225, DRFT 121, CIET 115, MEET 240*

The primary focus of this course is system integration. Design projects will be assigned throughout and oral presentations will be required. This course also covers the following: centrifugal pumps, eccentric loading, bolts and fasteners, welded connections, sleeve bearings, mechanical seals, alignment, economic analysis, maintainability, and other related topics.

**Credit Hours: 3**

## Course Descriptions

### MEET-240 FLUID POWER

**Pre-requisite(s):** *MATH 114, Meet 121*

An applied hydraulics course with special concentration on factory or industrial hydraulic systems. Introduction to fluid mechanics, and mobile equipment and mining machinery. Subject matter includes types of hydraulic pumps and motors, cylinders, directional valves, sequence and counterbalance valves, volume controls, pressure-reducing valves, specifications for piping and filtration, etc. Selected computer application software is introduced.

**Credit Hours: 4**

### MEET-241 PRINCIPLES OF FLUID POWER

**Pre-requisite(s):** *MATH 113 or MATH 115*

An introduction to fluid power with concentration industrial hydraulics. Physical properties of hydraulic fluid, concepts of fluid flow and power transformations are introduced. Hydraulic symbols, unit conversions and circuit reading will be covered.

**Credit Hours: 4**

### MEET-242 COMPONENTS OF FLUID POWER

**Pre-requisite(s):** *MEET 241*

A course introducing industrial hydraulic components and fluid transport devices. The course further investigates fluid flow and power. Introduces volumetric and mechanical efficiencies as well as friction with in a system.

**Credit Hours: 1**

### MEET-243 HYDRAULIC CIRCUIT DESIGN

**Pre-requisite(s):** *MEET 242*

A course in practical hydraulics. This course will explore concepts involved in maintaining hydraulic circuits. Common hydraulic problems will discussed along with troubleshooting techniques.

**Credit Hours: 1**

### MEET-245 FLUID POWER LABORATORY

**Co-requisite(s):** *MEET 241*

A laboratory experience designed to complement a study in hydraulics. Various theoretical and practical labs will be conducted. Written reports and skills tests will be used to evaluate lab performance.

**Credit Hours: 1**

### MEET-250 CLIMATE CONTROL

**Pre-requisite(s):** *MATH-113, PHYS-201*

This course begins with an overview of fundamental concepts of thermodynamics including energy equations, gas laws energy cycles, and vapor cycles. The course then moves to heating, cooling, and ventilation fundamentals including the design of heating and cooling installations. Humidity calculations using psychometric charts, electrical control systems, solar heating, and design fundamentals are also covered. Selected computer application software is introduced.

**Credit Hours: 4**

### MGMT

#### Management

#### MGMT-151 SUPERVISORY MANAGEMENT

**Pre-requisite(s):** *Eligible for ENGL 101*

A management course for those interested in acquiring the knowledge and exploring the skills and techniques required for effective management at the supervisory to mid-management levels. Content is presented within the context of four management functions (Planning, Organizing, Leading, and Controlling). Supporting skills development topics and general human resources management topics are also addressed. Primary focus is on the human relations side of management.

**Credit Hours: 3**

#### MGMT-155 FUNDAMENTALS OF ENTREPRENEURSHIP

This course addresses the unique entrepreneurial experience of conceiving, evaluating, creating, managing and potentially selling a business. The goal is to provide a solid background with practical application of important concepts applicable to the entrepreneurial environment. In addition to creative aspects, key business areas of finance, accounting, marketing, and management will be addressed from an entrepreneurial perspective.

**Credit Hours: 3**

#### MGMT-160 FUNDING YOUR VENTURE

**Pre-requisite(s):** *MGMT 155*

Methods of funding small business including loans, grants, angel and venture capital. Topics include loan packaging; grants: fact or fiction; Small Business Administration guaranteed loans, traditional bank loans, and micro-lending; credit, capital and collateral; and the advantages and disadvantages of each.

**Credit Hours: 1**

#### MGMT-170 OPPORTUNITIES ANALYSIS (GEC 4)

**Pre-requisite(s):** *MGMT 155 and MGMT 160*

Critically and realistically analyze business ideas for successful implementation. Topics include business research, business planning and financial planning, market demand, cost benefit analysis, knowledge and experience vs. business ideas.

**Credit Hours: 2**

#### MGMT-175 PRESENTING YOUR VENTURE

Techniques and methods for presenting a business venture to a lender, partners, potential funders, and customers. Marketing ideas to all possible resource partners including branding your business image.

**Credit Hours: 2**

#### MGMT-199 SPECIAL TOPICS

Special topics course relating to Management.

**Credit Hours: 1-3**

## Course Descriptions

### MGMT-202 PRINCIPLES OF MANAGEMENT (B)

**Pre-requisite(s):** *BUSN 106*

This course familiarizes the student with the management concepts of planning, organizing, directing, and controlling. Assists the student in developing an integrated concept of issues affecting contemporary business environments. In addition to introducing the student to the technical knowledge and skills of management, the application of these concepts in the workplace will be considered.

**Credit Hours: 3**

### MGMT-238 RETAIL MANAGEMENT

**Pre-requisite(s):** *MGMT 202*

This course covers product and service retailing. Emphasis is placed on store management, human resource management, customer buying behavior, customer service, and financial strategy.

**Credit Hours: 3**

### MGMT-251 HUMAN RESOURCE CERTIFICATION PREPARATION

This course provides an in-depth study of the six key areas of the human resource body of knowledge including: strategic management, workforce planning and employment, human resource development, total rewards (compensation and benefits), employee and labor relations, and risk management (health, safety and security). Students will be prepared to sit for the Professional in Human Resources (PHR) or Senior Professional in Human Resources (SPHR) certification exams.

**Credit Hours: 3**

### MGMT-253 HUMAN RESOURCE MANAGEMENT

**Pre-requisite(s):** *BUSN 106 and MGMT 151*

This course provides a comprehensive overview of human resource/personnel management concepts, practices, and procedures. Emphasis is placed on the practical application of human resource management principles in small business.

**Credit Hours: 3**

### MGMT-255 SMALL BUSINESS MANAGEMENT

**Pre-requisite(s):** *BUSN 112, BUSN 106, MGMT 151, MGMT 202, MKTG 205 and ACCT 180 (or permission of the Program Coordinator).*

Major management problems characteristic of small business entrepreneurs are analyzed and discussed. Requirements for starting a small business are emphasized including selling marketing, legal issues, management, and financial controls. In this capstone course students develop and write a business plan for a small business.

**Credit Hours: 3**

### MGMT-266 ENTREPRENEURSHIP MENTORSHIP

**Pre-requisite(s):** *ENGL 101, completion of a minimum of 45 hours and permission of supervising instructor and Program Coordinator*

Working one-on-one with a cooperating professional in an entrepreneurial-based setting for the purpose of developing specific competencies, insight, self-awareness, wisdom and skills of an entrepreneur. Students will focus on developing skills and competencies and how to overcome obstacles of entry into an entrepreneurial opportunity. Students must complete at least 250 hours of on-the-job experiences with their mentor as well as classroom supplemental assignments/assessments.

**Credit Hours: 3**

## Course Descriptions

### MGMT-299 SPECIAL TOPICS

Special topics course relating to Management.

**Credit Hours: 1-3**

## MLAB

### Medical Laboratory Technology

#### MLAB-100 INTRODUCTION TO LABORATORY SCIENCE AND PHLEBOTOMY

**Pre-requisites:** *Students must have completed all required courses to apply to and be chosen to participate in the MLT program.*

This course will provide an introduction to clinical laboratory science, including phlebotomy.

**Credit Hours: 2**

#### MLAB-199 SPECIAL TOPICS

**Pre-requisites:** *Students must have completed all required courses to apply to and be chosen to participate in the MLT program.*

Special topics course relating to medical laboratory technology.

**Credit Hours: 1-3**

#### MLAB-200 CLINICAL HEMATOLOGY WITH LAB

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide an introduction to clinical hematology (the study of blood and its related disorders) and the fundamentals of hemostasis (coagulation).

**Credit Hours: 4**

#### MLAB-201 CLINICAL BIOCHEMISTRY WITH LAB

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide an introduction to clinical chemistry with an emphasis on fundamental principles and techniques used in a clinical chemistry laboratory and the analytes to be measured.

**Credit Hours: 4**

#### MLAB-202 CLINICAL IMMUNOHEMATOLOGY WITH LAB

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide an introduction to Blood Banking and Transfusion Practices for the MLT student. Topics will include (but are not limited to) basic immunology, blood groups and serologic testing and transfusion practices.

**Credit Hours: 4**

## Course Descriptions

### MLAB-203 CLINICAL MICROBIOLOGY WITH LAB

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide the MLT student with an introduction to diagnostic microbiology, including topics such as routine and special specimen processing, clinically significant isolates and analysis of body systems for infectious disease.

**Credit Hours: 4**

### MLAB-204 CLINICAL URINALYSIS AND BODY FLUIDS WITH LAB

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide the MLT student with an introduction to the analysis of non-blood body fluids using physical, chemical and microscopic methods.

**Credit Hours: 1**

### MLAB-205 MLT SEMINAR

**Pre-requisites:** *Students must have completed all required courses from the first and second semester courses and be chosen to participate in the MLT program.*

This course will provide the MLT students with an opportunity to review for their certification exam, explore career options and present personal research on a laboratory topic.

**Credit Hours: 1**

### MLAB-206 MLT CLINICAL PRACTICUM (GEC 4)

**Pre-requisites:** *Students must have completed all required courses to apply and be chosen to participate in the MLT program. The first semester major didactic courses must be completed before the clinical practicum is offered.*

This course will provide the MLT students with an opportunity to get hands-on training in actual hospital laboratories, using automated and manual procedures and computer information systems.

**Credit Hours: 12**

### MLAB-299 SPECIAL TOPICS (ADVANCED)

**Pre-requisites:** *Students must be actively participating in the MLT program.*

Special topics course relating to medical laboratory technology

**Credit Hours: 1-3**

## MRKT

### Marketing

#### MRKT-173 PROFESSIONAL SELLING

A study of the basic principles of selling including product knowledge, presentation of the product or service, demonstrations, objectives and sales resistance, and closing the sale. Includes discussion of customer behavior.

**Credit Hours: 3**

#### MRKT-175 MARKETING COMMUNICATIONS

A comprehensive study of the field of advertising and its many career opportunities. Emphasis on marketing and media strategies with special focus on print and electronic media.

**Credit Hours: 3**



## Course Descriptions

### MRKT-199 SPECIAL TOPICS

Special topics course relating to Marketing.

**Credit Hours: 1-3**

### MRKT-205 FUNDAMENTALS OF MARKETING

This course explores the marketing concept, examines the marketing environment, and discusses marketing ethics, social responsibility and consumer and organizational buying behavior. It introduces students to the role that marketing research plays in developing products and segmenting markets and explains elements of the marketing mix. Course topics help students understand how marketing plans are developed.

**Credit Hours: 3**

### MRKT-220 SOCIAL MEDIA MARKETING

**Pre-requisites:** *MRKT 205*

This course will focus on understanding social media, how to build social media marketing strategies, and how to track their effectiveness. This course covers advertising, marketing and communications strategies in the new media landscape where traditional media (e.g. television, printing) and the online social media (i.e. Web 2.0; e.g. online social networks, user generated content, blogs, forums) coexist. We will look at the current media landscape and the strategic opportunities and challenges that it affords marketers, managers and consultants who are concerned with how to efficiently and effectively advertise/promote brands and products.

**Credit Hours: 3**

### MRKT-250 MARKETING MANAGEMENT

**Pre-requisites:** *MRKT 205*

This is the capstone course for the marketing program will encompass skills learned in all previous Marketing courses. The course will give the student the opportunity to demonstrate their knowledge by creating a complete integrated marketing campaign.

**Credit Hours: 3**

### MRKT-299 SPECIAL TOPICS

Special topics course relating to Marketing.

**Credit Hours: 1-3**

## MTGY

Meteorology

### MTGY-100 WEATHER AND CLIMATE (GEC 2)

Examination of weather, atmosphere and climate change using the American Meteorology Society's Weather Studies Education Program. Includes laboratory work.

**Credit Hours: 3**

### NUCM

#### Nuclear Medicine

##### NUCM-200 INTRODUCTION TO NUCLEAR MEDICINE

Designed for the student who will be applying and screening for the Nuclear Medicine Technology program. This course will orient each student to the policies/procedures of each of the clinical affiliates. In addition, infection control, HIPAA, JCAHO, NRC, NMT Codes of Ethics, IV techniques, routine procedures, radiation safety, patient assessment, and body mechanics will be presented.

**Credit Hours: 3**

##### NUCM-201 NUCLEAR MEDICINE PRACTICUM III

**Co-requisites:** *Admissions into the Nuclear Medicine Program*

Directed practice in an affiliated hospital. This training will prepare the student to perform routine, diagnostic, and therapeutic nuclear medicine procedures. Summer session, 40 hours per week.

**Credit Hours: 3**

##### NUCM-202 NUCLEAR MEDICINE PRACTICUM I

**Co-requisites:** *Admissions into the Nuclear Medicine Program*

Directed practice in an affiliated hospital. This training will prepare the student to perform routine, diagnostic, and therapeutic nuclear medicine procedures. Fall Semester, 32 hours per week.

**Credit Hours: 6**

##### NUCM-203 NUCLEAR MEDICINE PROCEDURES I

**Co-requisites:** *Admissions into the Nuclear Medicine Program*

This course covers imaging and non-imaging procedures in nuclear medicine including anatomy & physiology, radiopharmaceuticals, instrumentation, and basic interpretation. It also covers patient care, dose administration, ethics, legal issues, department organization, and radiation safety issues.

**Credit Hours: 3**

##### NUCM-204 RADIATION PHYSICS

**Pre-requisites:** *Physics 109*

A study of electronic structures, corpuscular and wave nature of electromagnetic radiation, spectra, electromagnetic interaction with matter, relativity, radioactivity, neutron activation, cyclotron nuclear reactors, production and properties of x-rays, and fundamentals of nuclear physics.

**Credit Hours: 3**

##### NUCM-205 RADIOBIOLOGY AND RADIATION PROTECTION SEMINAR

**Pre-requisites:** *Admissions into the Nuclear Medicine Program*

This course encompasses the concepts of maximum permissible radiation dose and maximum permissible concentrations of radionuclide in the environment. Biological effects to ionizing radiation in man are considered, with emphasis on the variables which affect the response to radiation exposure.

**Credit Hours: 2**

##### NUCM-206 NUCLEAR MEDICINE PRACTICUM II (GEC 4)

**Co-requisites:** *Admissions into the Nuclear Medicine Program*

Directed practice in an affiliated hospital. This training will prepare the student to perform routine, diagnostic, and therapeutic nuclear medicine procedures. Spring Semester, 32 hours per week.

**Credit Hours: 6**

### NUCM-208 NUCLEAR MEDICINE PROCEDURES II

**Pre-requisites:** *NUCM 203-Nuclear Medicine Procedures I*

**Co-requisites:** *Admissions into the Nuclear Medicine Program*

Continuation of issues and procedures discussed in NUCM 203.

(Covering imaging and non-imaging procedures in nuclear medicine including anatomy & physiology, radiopharmaceuticals, instrumentation, and basic interpretation. It also covers patient care, dose administration, ethics, legal issues, department organization, and radiation safety issues). Also, reviews for nuclear medicine registry and certification exams.

**Credit Hours: 3**

### NUCM-209 RADIOPHARMACY AND RADIOCHEMISTRY

**Pre-requisites:** *Admissions into the Nuclear Medicine Program*

Basic principles of radiopharmacy as practiced in the nuclear medicine department will be discussed.

Radiopharmaceutical production, methods of localization, chemical reaction, radiation safety, government regulations, quality control and the principles of radiochemical techniques.

**Credit Hours: 2**

## NURS

### Nursing

### NURS-125 PHARMACOLOGY FOR NURSING

**Pre-requisites:** *NURS 132, NURS 133, and NURS 134 with a grade of "C" or better*

**Co-requisites:** *NURS 142, NURS 143, and NURS 144*

This course covers the basic principles of pharmacology for nursing students. Consumer safety, methods of identifying drug names, and references will be identified in addition to emergency preparedness and bioterrorism review. Principles of drug processing, absorption, distribution, metabolism, and excretion will be discussed along with responsibilities for principles of study for the health care worker. Administration of drugs by various routes of administration will be explored including oral, gastrointestinal, and parenteral routes.

**Credit Hours: 3**

### NURS-132 DRUG AND DOSAGE CALCULATIONS I

**Pre-requisites:** *Admission into the Nursing Program; Eligible for College-level MATH 100 or greater, Eligible for ENGL 101*

**Co-requisites:** *NURS 133, NURS 134, PSYC 101, BIOL 220, ENGL 101*

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.

**Credit Hours: 1**

### NURS-133 HEALTH ASSESSMENT AND DIAGNOSTICS I

**Pre-requisites:** *Admission into the Nursing Program; Eligible for ENGL 101*

**Co-requisites:** *NURS 132, NURS 134, PSYC 101, BIOL 220, ENGL 101*

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.

**Credit Hours: 2**

### NURS-134 INTRODUCTION TO NURSING CONCEPTS

**Pre-requisites:** *Admission into the Nursing Program; Eligible for ENGL 101*

**Co-requisites:** *NURS 132, NURS 133, PSYC 101, BIOL 220, ENGL 101*

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 judgment and decision making.

**Credit Hours: 8**

### NURS-142 DRUG AND DOSAGE CALCULATIONS II

**Pre-requisites:** *Completion of NURS 132, NURS 133, and NURS 134 with a grade of "C" or better*

**Co-requisites:** *NURS 143, NURS 144, BIOL 221*

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.

**Credit Hours: 1**

### NURS-143 HEALTH ASSESSMENT AND DIAGNOSTICS II

**Pre-requisites:** *Completion of NURS 132, NURS 133, and NURS 134 with a grade of "C" or better*

**Co-requisites:** *NURS 142, NURS 144, BIOL 221*

This course is designed to focus on abnormal assessment and diagnostic findings. Modifications of assessment for select populations will be addressed.

**Credit Hours: 1**

### NURS-144 NURSING CONCEPTS OF HEALTH AND ILLNESS I

**Pre-requisites:** *Completion of NURS 132, NURS 133, and NURS 134 with a grade of "C" or better*

**Co-requisites:** *NURS 142, NURS 143, BIOL 221*

This course builds upon foundational concepts across the lifespan while introducing the concepts of the wellness-illness continuum and the individual and family response. Classroom and laboratory experiences provide opportunity for application of the nursing process and development of clinical judgment and decision making.

**Credit Hours: 9**

### NURS-199 SPECIAL TOPICS

Special topics course related to nursing.

**Credit Hours: 1-3**

### NURS-221 NURSING CARE IN ADULT HEALTH AND ILLNESS IV

**Pre-requisites:** *Completion of NURS 217, NURS 218, and NURS 219 with a grade of "B" or better*

**Co-requisites:** *NURS 222, NURS 223, NURS 224, ENGL 102*

This course will cover the nursing principles of the high acuity client in acute care, critical care and emergency settings. Students will review the concepts of critical care and emergency nursing, shock, trauma, transplantation and organ donation, disaster management, and the care of clients with advanced disorders involving the respiratory, cardiac, integumentary, renal, hematologic, and systems. Health promotion and maintenance, risk reduction and disease intervention strategies will be incorporated.

**Credit Hours: 5**

### NURS-222 MANAGEMENT OF NURSING CARE

**Pre-requisites:** *Completion of NURS 217, NURS 218, and NURS 219 with a grade of "B" or better*

**Co-requisites:** *NURS 221, NURS 223, NURS 224, ENGL 102*

This course will explore the principles of nursing management and leadership. Students will review the topics of effective communication, conflict management, delegation and supervision, nursing care delivery models, Quality Improvement research, health care economic issues and fiscal responsibility, legal and ethical issues, client and workplace advocacy, emergency preparedness, informational computer-based technology, and the use of nursing research to guide practice. Evidence-based clinical nursing practice will allow for the application of these principles in a variety of acute and community health care settings during the course.

**Credit Hours: 3**

### NURS-223 PRECEPTORSHIP IN NURSING CARE

**Pre-requisites:** *Completion of NURS 217, NURS 218, and NURS 219 with a grade of "B" or better*

**Co-requisites:** *NURS 221, NURS 222, NURS 224, ENGL 102*

Students will be provided the opportunity to perform in the role of the registered nurse under the supervision of a RN preceptor and nursing faculty. Students will be able to synthesize scientific concepts to enhance client care, apply critical thinking to form competent clinical judgments, perform and manage evidence-based nursing care, effectively communicate and collaborate with health care team members, utilize discipline-specific technology, demonstrate professional accountability, and participate in professional development activities.

**Credit Hours: 4**

### NURS-224 PROFESSIONAL NURSING SEMINAR

**Pre-requisites:** *Completion of NURS 217, NURS 218, and NURS 219 with a grade of "B" or better*

**Co-requisites:** *NURS 221, NURS 222, NURS 223, ENGL 102*

This capstone course in the nursing program will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional nurse. Topics of discussion will include economic issues and health care financing, health care policy and politics, ethical and bioethical issue, career development and preparation for the NCLEX-RN examination. Students will submit a general education portfolio for evaluation. Students must achieve a designated score on the RN Assessment by ERI in order to graduate.

**Credit Hours: 1**

### NURS-234 NURSING CONCEPTS OF HEALTH AND ILLNESS II

**Pre-requisites:** *Completion of NURS 142, NURS 143, and NURS 144 with a grade of "C" or better*

**Co-requisites:** *ENGL 101, BIOL 230 or BIOL 245*

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.

**Credit Hours: 9**

## Course Descriptions

### NURS-244 SYNTHESIS OF NURSING CONCEPTS (GEC 4)

**Pre-requisites:** *Completion of NURS 234 with a grade of "C" or better*

**Co-requisites:** *NURS 245*

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.

**Credit Hours: 9**

### NURS-245 PROFESSIONAL NURSING AND HEALTH SYSTEMS CONCEPTS (GEC 3)

**Pre-requisites:** *Completion of NURS 234*

**Co-requisites:** *NURS 244, BIOL 245*

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.

**Credit Hours: 3**

### NURS-299 SPECIAL TOPICS

**Pre-requisites:** *Completion of NURS 234*

**Co-requisites:** *NURS 244*

Special topics course related to nursing.

**Credit Hours: 1-3**

## PHED

### Physical Education

#### PHED-101 HEALTH AND WELLNESS

This course is designed to provide the student with knowledge of current health issues and problems, including physical fitness, nutrition, and major diseases and to encourage application of this knowledge for healthful living.

**Credit Hours: 2**

#### PHED-102 INTRODUCTION TO YOGA

Introduction to Yoga is an activity course that develops the following areas of health-related fitness: muscular endurance, flexibility and body awareness. This course also enhances the student's overall wellness and stress management through a combination of stretching, breathing exercises, and deep relaxation.

**Credit Hours: 1**

#### PHED-104 FIRST AID

This course teaches students critical skills to respond to and manage an emergency in the first few minutes until emergency medical service personnel arrive. Students learn skills such as how to treat bleeding, sprains, broken bones, shock and other first aid emergencies.

**Credit Hours: 1**

## Course Descriptions

### PHED-199 SPECIAL TOPICS

Special topics course relating to physical education.

**Credit Hours: 1-3**

### PHED-299 SPECIAL TOPICS

Special topics course relating to physical education.

**Credit Hours: 1-3**

## PHSC

### Physical Science

#### PHSC-100 PHYSICAL SCIENCE (GEC 2)

**Co-requisites:** *100 level English or equivalent ACT score*

Current theories and concepts of physical science focusing on fundamental laws and concepts of physics, chemistry, astronomy, and geology.

**Credit Hours: 3**

#### PHSC-101 PHYSICAL SCIENCE LAB

**Co-requisites:** *100 level English or equivalent ACT score*

Corresponding lab for PHSC 101.

**Credit Hours: 1**

## PHYS

### Physics

#### PHYS-100 INTRODUCTORY PHYSICS (GEC 2)

**Pre-requisites:** *ACT 21 or Accuplacer Elementary Algebra 108, or grade C or better in MATH 125 or in MATH 115*

This course is an introduction to basic process physics, including vectors, forces and motion, work and energy, gases and flowing liquids, fluid systems, heat transfer, simple machines and mechanical advantage, and other physical science principles. Laboratory demonstrations in class are used in lieu of a separate lab section.

**Credit Hours: 3**

#### PHYS-101 GENERAL PHYSICS I (GEC 2)

**Pre-requisites:** *Algebra (MATH 130)*

**Co-requisites:** *Trig (MATH 140)*

Mechanics; properties of solids, liquids and gases; properties of heat; wave motion, including sound and applications. Laboratory activities are integrated into the course.

**Credit Hours: 4**

## Course Descriptions

### PHYS-102 GENERAL PHYSICS II (GEC 2)

**Pre-requisites:** *Algebra (MATH 130)*

**Co-requisites:** *Trig (MATH 140)*

Continuation of PHYS 101. Electricity and magnetism; basic electronics; properties of light; lenses and mirrors; optical phenomena; introduction to modern physics. Laboratory activities are integrated into the course.

**Credit Hours: 4**

## POLI

### Political Science

### POLI-101 AMERICAN FEDERAL GOVERNMENT

**Pre-requisites:** *Eligible for ENGL-101*

U.S. government under the Constitution; power and duties of the executive, legislative, and judicial branches; relationships between federal, state and local governments; expansion of federal power; federal agencies; foreign affairs. A study of the theory, organization, functions, politics, and issues of the United States political system. Primary emphasis is on the federal level of government. The course focuses on how the system is supposed to work, how it does work, its achievements and shortcomings. Topics include the legislative, executive branches of government, political parties, campaigns and elections, and formulation of public policy.

**Credit Hours: 3**

## PRLS

### Paralegal Studies

### PRLS-100 INTRODUCTION TO THE PARALEGAL PROFESSION

The role of paralegals/legal assistants in the legal system and the skills needed to work as a paralegal/legal assistant are the main foci of this course. Students will also be introduced to legal ethics, the regulation of legal assistants/paralegals, legal interviewing, law office administration and employment information.

**Credit Hours: 2**

### PRLS-101 CIVIL LITIGATION 1

**Pre-requisites:** *Eligible for ENGL-101*

This course provides students with an overview of the initial stages of the civil litigation process. The course focuses on the role of the paralegal in the preparation of court documents, investigation, client and witness contact and discovery. Students are asked to draft complaints, certificates of service, and other documents as part of this course.

**Credit Hours: 3**

### PRLS-199 SPECIAL TOPICS IN PARALEGAL STUDIES

**Pre-requisites:** *PRLS 199*

Courses or seminars on timely subjects related to the interests and needs of paralegals.

**Credit Hours: 1-4**



## Course Descriptions

### PRLS-200 CIVIL LAW 1

**Pre-requisites:** *BUSN 203 Business Law 1*

This course builds upon BUSN 203. Specifically, this course covers a number of substantive areas of law including business organizations, consumer protection, employment, environmental, and family law. In covering these areas, students are encouraged to think critically regarding how these areas of law are applied to real life scenarios. Students may be asked to draft documents as part of this course.

**Credit Hours: 3**

### PRLS-201 EVIDENCE AND LITIGATION PRE-REQUISITES: PRLS 101 CIVIL LITIGATION 1

This course will build upon what students have learned in PRLS 101 about the civil litigation and appellate process. It will also study areas of evidentiary law, including the rules of evidence, and it will require students to perform various writing assignments that will assist them in learning how to draft documents needed in a litigation practice.

**Credit Hours: 3**

### PRLS-202 PROPERTY LAW

**Pre-requisites:** *Eligible to take ENG 101*

The course covers the following substantive areas of law: property, leases, deeds, real estate finance, and distribution of assets through testamentary and non-testamentary means. Students are also required to draft various testamentary and non-testamentary documents and are required to perform title searches as part of this course.

**Credit Hours: 3**

### PRLS-203 CRIMINAL LITIGATION

**Pre-requisites:** *Eligible to take ENG 101*

This course studies criminal law and procedure. Topics to be covered include searches and seizures, arraignment, trial, and sentencing, the habeas corpus petition process, and information concerning various types of misdemeanors and felonies. Students will be taught to think critically about these topics and may be asked to draft different documents needed in the criminal litigation process.

**Credit Hours: 4**

### PRLS-204 CIVIL LITIGATION 2

**Pre-requisites:** *PRLS 101 Civil Litigation 1; PRLS 201 Evidence and Litigation*

This course studies debt, debt collection through both judicial and non-judicial means, and bankruptcy. The course also seeks to expose students to practical applications of litigation theory by allowing the students to have an opportunity to visit various court hearings. Certain writing assignments may be required of students enrolled in this class.

**Credit Hours: 3**

### PRLS-220 LEGAL RESEARCH AND WRITING 1

**Pre-requisites:** *BUSN 203; PRLS 101; PRLS 200; PRLS 201*

This course covers basic legal research and writing techniques. The student will utilize manual research techniques and/or computer-based research techniques. Some writing assignments may be assigned.

**Credit Hours: 3**

### PRLS-221 LEGAL RESEARCH AND WRITING 2 (GEC 4)

**Pre-requisites:** PRLS 220

This course covers more advanced legal research and writing techniques. It also covers the use of legal reasoning in legal writing. Writing assignments will be assigned and students are expected to utilize critical thinking skills that have previously been acquired in other PRLS classes.

**Credit Hours: 3**

### PRLS-296 PCCE REVIEW COURSE

**Pre-requisites:** *All graduation requirements except for the courses in which the student is currently enrolled must be completed; Permission of supervising instructor and Program Coordinator must be obtained to enroll in this course.*

**Co-requisites:** PRLS 298

This review course will help prepare Paralegal Students to take the Paralegal Core Competency Examination. This course must be taken in the semester that the student is graduating from the Paralegal Studies program.

**Credit Hours: 1**

### PRLS-297 PARALEGAL STUDIES INTERNSHIP

**Pre-requisites:** *All graduation requirements except for the courses in which the student is currently enrolled must be completed; Permission of supervising instructor and program coordinator must be obtained to enroll in this course.*

The associate degree paralegal studies candidate will work at least 160 hours for the purpose of gaining on-the-job experience in legal and legal related fields. Students attend a weekly class that accompanies their work requirement. Students are responsible for securing employment with an internship provider. Graded on a pass/fail basis.

**Credit Hours: 2**

### PRLS-298 PARALEGAL STUDIES SEMINAR

**Pre-requisites:** *All graduation requirements except for the courses in which the student is currently enrolled must be completed; Permission of supervising instructor and Program Coordinator must be obtained to enroll in this course.*

**Co-requisites:** PRLS 250 Paralegal Studies Internship

This capstone course must be taken the semester the student plans to graduate. Program specific and general knowledge exit examinations, oral presentations, writing assignments and case analyses will be used to measure student competencies. Seminars will be presented on such topics as resume writing, interviewing skills, time management, business etiquette and customer service. Prerequisites: All graduation requirements except for the courses in which the student is currently enrolled must be completed; Permission of supervising instructor and Program Coordinator must be obtained to enroll in this course.

**Credit Hours: 1**

### PRLS-299 SPECIAL TOPICS IN PARALEGAL STUDIES

**Pre-requisites:** PRLS 299

Courses or seminars on timely subjects related to the interests and needs of paralegals.

**Credit Hours: 1-4**

## Course Descriptions

### PSYC

#### Psychology

##### PSYC-101 GENERAL PSYCHOLOGY (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

This course involves a general survey of the discipline and concepts of psychology, (origins, growth and development of behavior, language, conditioning, and learning) utilizing landmark and recent research to examine relevance (application) outside of the classroom. Emphasis in this course is on real-world application (personally and professionally) of psychological concepts, within the context of a diverse and ever-changing society

**Credit Hours: 3**

##### PSYC-201 LIFE SPAN DEVELOPMENT (GEC 3)

**Pre-requisites:** *Eligible for ENGL 101*

This course examines the major theoretical perspectives in developmental psychology. Based on psychological theory and research, it includes practical application. Emphasis will be on the interconnectedness through change and development across each stage of the life cycle. Effects of individual variable differences of development (social, emotional, physical, cognitive) are examined.

**Credit Hours: 3**

### PTEC

#### Applied Process Technology

##### PTEC-101 INTRODUCTION TO PROCESS TECHNOLOGY

**Pre-requisites:** *MATH 020, or placement into the next higher MATH course*

Introduction to process technology, including the history, shift work, operations, equipment, basic electric circuits, utilities, auxiliaries, maintenance and trouble identification, instrumentation and control systems basics. The physics and chemistry of processing, including calculation of volumes, flows, forces, pressure, temperature, and gas law equations.

**Credit Hours: 4**

##### PTEC-103 PROCESS TECHNOLOGY I: EQUIPMENT

**Pre-requisites:** *PTEC 101*

Introduction to process technology equipment. Industry-related equipment concepts, including purpose, components, operation and the operator's role for operating and troubleshooting the equipment.

**Credit Hours: 4**

##### PTEC-199 SPECIAL TOPICS

**Pre-requisites:** *Permission of Program Coordinator*

Special topics course relating to Process Technology.

**Credit Hours: 1- 3**

### PTEC-201 WATER AND WASTEWATER TREATMENT

**Pre-requisites:** *PTEC 101*

Introduction to basic principles of water treatment, including water treatment chemistry, types and operation of equipment, controls and instruments, accessory equipment, water treatment and wastewater treatment operations.

**Credit Hours: 3**

### PTEC-202 SAFETY, HEALTH AND ENVIRONMENT

**Pre-requisites:** *ENGL 020, or placement into the next higher ENGL course*

Introduction to safety basics including hazard communication, hazardous waste operations and emergency response (HAZWOPER), personal protective equipment, respiratory protection, industrial hygiene topics, permit systems and environmental protection.

**Credit Hours: 3**

### PTEC-203 PROCESS TECHNOLOGY II: SYSTEMS

**Pre-requisites:** *PTEC 101*

Introduction to basic operating fundamentals including typical plant facilities layout, and the interrelation of process equipment and systems. Students will arrange process equipment into basic systems, describe the purpose and function of specific systems, and explain how operating parameters are maintained and controlled while recognizing factors that may affect process systems. Students will also study the concepts of system and plant economics.

**Credit Hours: 3**

### PTEC-205 PROCESS TECHNOLOGY III: OPERATIONS

**Pre-requisites:** *PTEC 203*

Students apply existing knowledge of equipment, systems, and instrumentation to the operation of an entire unit in a manufacturing plant in the process technology industry. Concepts relating to commissioning, normal start-up, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as the operator's role in performing the tasks associated with these concepts are also studied.

**Credit Hours: 4**

### PTEC-206 PROCESS QUALITY

**Pre-requisites:** *MATH020, or placement into the next higher MATH course*

Introduction to modern quality control, including the definition of quality, statistical distributions, capability measures with respect to customer expectations, Lean manufacturing, Six Sigma, Quality Reliability Planning, Quality costs. Students gain knowledge in customer expectations in a manufacturing system and continuous improvement methodology. Demonstrates procedures and policies to insure operating consistency, reduce variability in the process, reduce waste and prevent safety incidents. Students use quality tools and team problem-solving techniques.

**Credit Hours: 3**

## Course Descriptions

### PTEC-207 CHEMICAL PLANT INTERNSHIP

**Pre-requisites:** *Permission of Program Coordinator and of the host company*

Students are chosen by local companies to intern for periods up to 16 weeks, and must meet performance, safety and work habit criteria of the host. Students will be evaluated jointly by employees of the chemical plant and an instructor from the Process Technology Program. Students must register for the four semester hour course to receive credit hours. The Chemical Plant Internship can be taken in lieu of PTEC 205, Process Technology III-Operations.

**Credit Hours: 4**

### PTEC-250 CAPSTONE COURSE

**Pre-requisites:** *Permission of Program Coordinator*

Capstone course. Prior Process Technology course information is reviewed in preparation for certifications. Course includes preparations for employment, Work Keys testing and review of General Education Portfolio.

**Credit Hours: 3**

## PWPT

### Power Plant Technology

#### PWPT-107 ELECTRICAL CONTROLS

**Pre-requisites:** *Basic DC Circuits*

Study of electrical diagrams, control circuits and control devices, including motor starters.

**Credit Hours: 3**

#### PWPT-202 INSTRUMENTATION AND CONTROL

Introduces the basic principles of process instrumentation and control systems. Measurement parameters such as flow, pressure, level, temperature pH will be examined. Includes programmable logic controllers, distributed control systems, and process and control diagrams (P&CD's).

**Credit Hours: 3**

## RESP

### Respiratory Therapy

#### RESP-101, CLINICAL ROTATION I

**Pre-requisite(s):** *Completion of RESP 105 with a grade of "C" or better*

Clinical rotations provide opportunities for students to apply theory and skills in the work environment. Clinical rotations must be completed in sequence.

**Credit hours: 0**

#### RESP-102 CLINICAL ROTATION II

**Pre-requisite(s):** *Completion of RESP-107 and 111 with a grade of "C" or better and a grade of "P" in RESP 101*

Clinical rotations provide opportunities for students to apply theory and skills in the work environment. Clinical rotations must be completed in sequence.

**Credit hours: 0**

### RESP-103 CLINICAL ROTATION III

**Pre-requisite(s):** *Completion of RESP-112 and 115 with a grade of "C" or better and a grade of "P" in RESP 102*

Clinical rotations provide opportunities for students to apply theory and skills in the work environment. Clinical rotations must be completed in sequence.

**Credit hours: 0**

### RESP-105 PATIENT ASSESSMENT

**Pre-requisite(s):** *Admission into the Respiratory Therapy Program*

A modular course designed to begin learning the terminology, diagnostics, and techniques used by the respiratory therapist. Preparatory information is covered to begin assessment and treatment of the acute or chronically impaired patient.

**Credit hours: 4**

### RESP-107 CP PHARMACOLOGY

**Pre-requisite(s):** *Completion of RESP-105 with a grade of "C" or better*

Course designed to instruct the student in the physiology of pharmaceuticals used by the advanced level respiratory therapist. The pharmaceutical, pharmacokinetic, and pharmacodynamics phases of therapy are studied in depth along with the autonomic nervous system. Drug classifications are studied as they pertain to the respiratory patient. Calculation of intravenous medications and gram/solution strength will be covered.

**Credit hours: 3**

### RESP-111 RESPIRATORY SKILLS I

**Pre-requisite(s):** *Completion of RESP-105 with a grade of "C" or better*

The theory and application of respiratory therapy equipment and techniques being used in the health care setting today. Modalities to be covered include: Basic Life Support (CPR); Respiratory Math and Physics; Gas Administration Devices and Therapy; Aerosol and Humidity Therapy.

**Credit hours: 4**

### RESP-112 RESPIRATORY SKILLS II

**Pre-requisite(s):** *Completion of RESP-107 and 111 with a grade of "C" or better and a grade of "P" in RESP 101*

A continuation of RT Skills I in studying the theory and application of respiratory therapy equipment and techniques being used in health care. Modalities to be covered include: Airway Management; Infection Control and Microbiology; Lung Inflation Therapy.

**Credit hours: 3**

### RESP-115 PATHOLOGY

**Pre-requisite(s):** *Completion of RESP-107 and 111 with a grade of "C" or better and a grade of "P" in RESP 101*

The course covers etiology and symptoms of various diseases encountered by the respiratory therapist. Concentration is on assessment and critical thinking skills during the treatment of both acute and chronic illness.

**Credit hours: 3**

## Course Descriptions

### RESP-201 CLINICAL ROTATION IV

**Pre-requisite(s):** *Completion of RESP 220 with a grade of "C" or better and a grade of "P" in RESP 103*

Clinical rotations provide opportunities for students to apply theory and skills in the work environment. Clinical rotations must be completed in sequence.

**Credit hours: 0**

### RESP-202 CLINICAL ROTATION V

**Pre-requisite(s):** *Completion of RESP 205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

Clinical rotations provide opportunities for students to apply theory and skills in the work environment. Clinical rotations must be completed in sequence.

**Credit hours: 0**

### RESP-205 NEONATES/PEDIATRICS

**Pre-requisite(s):** *Completion of RESP-220 with a grade of "C" or better and a grade of "P" in RESP 103*

Special topics that relate to the treatment of the pediatric and neonatal infant. Assessment, therapy, and ventilatory differences will be stressed.

**Credit hours: 3**

### RESP-207 ALTERNATE HEALTH CARE

**Pre-requisite(s):** *Completion of RESP-205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

Attention is given to the continuum of health care outside the acute hospital setting. Areas include DME companies, home care, skilled nursing units, and rehabilitation programs. Medicare and Medicaid regulations concerning reimbursement will be introduced to increase awareness of the legal and ethical considerations involved for the licensed respiratory therapist.

**Credit hours: 2**

### RESP-209 CLINICAL SIMULATIONS

**Pre-requisite(s):** *Completion of RESP-205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

Information gathering and decision making training to prepare the student for the national board exams. The course is a compilation of the therapist's training acquired from all previous work.

**Credit hours: 2**

### RESP-210 CARDIOPULMONARY DIAGNOSTICS I

**Pre-requisite(s):** *Completion of RESP-220 with a grade of "C" or better and a grade of "P" in RESP 103*

An in-depth study of laboratory results and hemodynamics as they relate to the assessment and treatment of the cardiopulmonary patient.

**Credit hours: 3**

### RESP-211 CARDIOPULMONARY DIAGNOSTICS II

**Pre-requisite(s):** *Completion of RESP-205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

A continuation of Cardiopulmonary Diagnostics I as an in-depth study of chest x-rays, EKG, and pulmonary function testing is highlighted. Also how they relate to the overall assessment and treatment of the cardiopulmonary patient. Critical thinking skills are emphasized.

**Credit hours: 3**

## Course Descriptions

### RESP-215 REVIEW SEMINAR

**Pre-requisite(s):** *Completion of RESP-205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

The capstone course in respiratory care presented by Kettering National Seminars. The review covers respiratory care from beginning to end to prepare the student for the national board exam.

**Credit hours: 2**

### RESP-217 PROFESSIONAL ISSUES

**Pre-requisite(s)** *Completion of RESP-205, 210, and 221 with a grade of "C" or better and a grade of "P" in RESP 201*

Legal and ethical issues involved in respiratory care. Course will also cover professional behavior and characteristics and job seeking skills.

**Credit hours: 2**

### RESP-220 MECHANICAL VENTILATION I

**Pre-requisite(s):** *Completion of RESP-112 and 115 with a grade of "C" or better and a grade of "P" in RESP 102*

Current modes of ventilation, types of ventilators, and mathematical calculations involved in their physiologic use. Application based on laboratory results and assessment techniques will be emphasized.

**Credit hours: 3**

### RESP-221 MECHANICAL VENTILATION II

**Pre-requisite(s):** *Completion of RESP-220 with a grade of "C" or better and a grade of "P" in RESP 103*

Advanced techniques of ventilator support. Concentration on assessment and care of the ventilator patient throughout the continuum of care.

**Credit hours: 4**

## SBLT

### Sustainable Building Technology

#### SBLT-100 INTRODUCTION TO GREEN TECHNOLOGY

This course will introduce students to green technologies currently being practiced. Topics covered include a description of green technologies, the seven green wastes, LEED, case studies in sustainable activities, sustainable energy systems and green employment opportunities.

**Credit Hours: 3**

#### SBLT-101 INTRODUCTION TO SUSTAINABLE DESIGN & CONSTRUCTION

**Pre-requisites:** *English Composition I*

An introduction to the theory and practice of sustainable design and construction. This course will explore the meaning of sustainability and how it is applied to architectural design and building construction in the context of ecology, economy, and social equity. This course will cover a range of sustainable precedents from indigenous cultures to modern-day design and construction.

**Credit Hours: 3**



### SBLT-102 BPI INSTALLER

This course is designed to prepare students to perform air-sealing and insulating jobs to the Building Performance Institute's (BPI) standard. Course content includes: health and safety on the job, the house as a system, introductory building science, air-sealing and insulating, fire protection, and combustion safety awareness. Upon successful completion of the BPI requirements, students will have the opportunity to earn BPI's Residential Building Envelope-Whole House Air Leakage Control Installer (RBE-WHALCI) certification.

**Credit Hours: 3**

### SBLT-104 BPI BUILDING ANALYST

**Pre-requisites:** *Eligible for Tech Math I*

This course is designed to prepare students to perform home energy audits to the Building Performance Institute's (BPI) standard. Course content includes: building science, building envelope diagnosis and performance, air infiltration testing, pressure diagnostics, indoor air quality, and combustion appliance safety testing. Upon successful completion of the BPI requirements, students will have the opportunity to earn BPI's Building Analyst (BA) certification.

**Credit Hours: 3**

### SBLT-112 BPI ENVELOPE PROFESSIONAL

**Pre-requisites:** *BPI Building Analyst*

This course is designed to advance student competence in home energy auditing to the Building Performance Institute's (BPI) standard. Course content includes: building science, building envelope diagnosis and performance, air-infiltration testing, pressure diagnostics and testing, indoor air quality, duct pressure testing, and combustion appliance safety testing. Upon successful completion of the BPI requirements, students will have the opportunity to earn BPI's Envelope certification.

**Credit Hours: 2**

### SBLT-113 HOME ENERGY MODELING

**Pre-requisites:** *BPI Building Analyst & Introduction to Computers and Office Applications*

This course is designed to prepare students to build an energy model of single-family residence using computer software. Students will learn how to calculate current energy consumption and accurately estimate energy savings based upon various improvement options. Life-cycling costing and savings to investment ratio (SIR) will also be addressed.

**Credit Hours: 1**

### SBLT-120 BPI INTRODUCTION TO BUILDING ASSESSMENT

An introduction to green building rating systems. Strategies and concepts covered include: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. This course will prepare students to sit for the LEED Green Associate credential exam, demonstrating green building expertise in non-technical fields of practice.

**Credit Hours: 1**

## Course Descriptions

### SBLT-140 RESIDENTIAL BUILDING ASSESSMENT

**Pre-requisites:** *Introduction to Building Assessment*

This course explores green building rating systems from a low-rise residential perspective. Topics covered include: location and linkages, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and awareness and education. This course will prepare students to sit for the LEED AP Homes credential exam which provides a standard for the design and construction of high-performance green homes.

**Credit Hours: 2**

### SBLT-203 BUILDING SYSTEMS INTEGRATION

**Pre-requisites:** *Tech Math I & eligible for English Composition I*

This course will explore the design of environmental control systems in buildings. An emphasis will be given to sustainability in architecture and how these systems can be integrated. Topics covered include energy conservation, heat flow, heating and cooling design, indoor air quality, and heating ventilating and air conditioning systems (HVAC).

**Credit Hours: 3**

### SBLT-207 ADVANCED TOPICS IN BUILDING SCIENCE

**Pre-requisites:** *BPI Envelope Professional & Building Systems Integration*

Capstone course. This course will review and build upon the principles of heat, air, and vapor flow through the building envelope. Types of materials (their properties and assembly) will be analyzed for various building assemblies including the roof, walls, and foundation. Analysis results will depend upon climate, orientation, components, and assemblies. Building envelope recommendations will be made based on the results of each analysis.

**Credit Hours: 3**

### SBLT-210 BUILDING INFORMATION MODELING

**Pre-requisites:** *Introduction to Computers and Office Applications*

This course will teach students how to quickly and efficiently model design concepts for visualization using building information modeling software. The software will be used as a management tool throughout the design and construction process. Building information modeling improves coordination, supports sustainable design, reduces conflicts and errors, and ensures project success.

**Credit Hours: 3**

## SOCI

### Sociology

### SOCI-101 INTRODUCTION TO SOCIOLOGY (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

The course focuses on sociological principles and human society; comparison of cultures; the family, groups, classes, castes, races, and nations; human ecology; the community; education and religion; conflict and cooperation; change.

**Credit Hours: 3**

## Course Descriptions

### SOCI-110 SOCIAL PROBLEMS (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

Causes of disorganization in modern Society life. Concentration on research findings derived from studies of contemporary American Society.

**Credit Hours: 3**

### SOCI-120 FAMILIES AND SOCIETY (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

Historical comparative approach to changing structures and functions of the family. Effect of economic, demographic, and cultural changes on relationships, gender, roles, marriage, childcare, variations by socioeconomic status, race, ethnicity, gender, sexual orientation.

**Credit Hours: 3**

### SOCI-130 DIVERSITY IN THE WORKPLACE (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

Designed to prepare the student to understand and appreciate differences among people. Linking this knowledge to the workplace will make this course both informative and practical.

**Credit Hours: 1**

## SOOL

### Student Orientation Online Learning-Module

#### SOOL- 099 ORIENTATION TO ONLINE LEARNING

This course is designed to assist students in learning how to navigate an online course, using BridgeValley's Learning Management System (LMS). In addition to navigation techniques, students will be introduced to BridgeValley's policies and procedures for online learning. Topics include: tips for online success, online procedures and netiquette, using discussion boards and email, posting assignments, taking quizzes and exams, and proctoring requirements and options. This course will be a prerequisite to enrolling in a web (W) section of a course. For students with prior experience in online courses, a test out option is available. Students desiring the test-out option should still enroll in the course.

## SPAN

### SPANISH

#### SPAN-101 SPANISH 1 (GEC 3)

**Pre-requisites:** *Eligible for ENGL-101*

This course teaches the fundamentals of Spanish communication. Instruction includes listening comprehension, speaking, writing and reading.

**Credit Hours: 3**

#### SPAN-102 SPANISH 2 (GEC 3)

**Pre-requisites:** *Spanish 101 with a C or better or 2 years of high school Spanish with instructor's approval*

This course continues the activities of Spanish 101 with special attention to developing oral proficiencies.

**Credit Hours: 3**

### VETT

#### Veterinary Technology

##### VETT-101 INTRO TO VETERINARY TECHNOLOGY

**Pre-requisite(s):** *Admission into the Veterinary Technology Program*

This is an introductory course with focus on history, laws and ethics, business and hospital management, and client relations and education. The lab will focus on husbandry, restraint, handling, drug administration, and phlebotomy.

**Credit hours: 3**

## Course Descriptions

### VETT-102 VETERINARY PARASITOLOGY

**Pre-requisite(s):** *Admission into the Veterinary Technology Program*

An introduction to common internal and external parasites, life cycles, treatment, and prevention. Laboratory will discuss identification techniques.

**Credit hours: 3**

### VETT-103 ANIMAL SCIENCE

**Pre-requisite(s):** *Admission into the Veterinary Technology Program*

This course will familiarize students with common breeds of dogs, cats, horses, and cattle. Also, breeding behaviors.

**Credit hours: 3**

### VETT-105 VETERINARY MEDICAL TERMINOLOGY

**Pre-requisite(s):** *Admission into the Veterinary Technology Program*

This course introduces the vocabulary, abbreviations, and symbols used in the language of veterinary medicine. Concentration is placed on building medical terms using prefixes, suffixes, or word roots. Upon completion students should be able to pronounce, spell, and define accepted veterinary medical terms.

**Credit hours: 2**

### VETT-111 SURGICAL TECHNIQUES & NURSING

**Pre-requisite(s):** *Completion of VETT 101, 102, and 103 with a grade of "C" or better*

In this course students will learn the basic principles of radiology, anesthesia, dental prophylactics, and surgical techniques. Emergency care, nursing care, wound management, bandaging, and instrumentation will also be covered.

**Credit hours: 5**

### VETT-112 VETERINARY PHARMACOLOGY I

**Pre-requisite(s):** *Completion of VETT 101, 102, and 103 with a grade of "C" or better*

This course is an introduction into pharmacology. It will include drug laws, calculations, classifications, drug uses, and drug administration. Common drugs for diseases covered in VETT-113 will also be discussed.

**Credit hours: 2**

### VETT-113 COMPANION ANIMAL DISEASES I

**Pre-requisite(s):** *Completion of VETT 101, 102, and 103 with a grade of "C" or better*

Study of the most commonly encountered diseases in veterinary medicine. Etiology, pathogenesis, zoonosis, history and clinical signs, diagnosis, treatment, and prevention will be discussed.

**Credit hours: 2**

### VETT-201 VETERINARY PATHOLOGY

**Pre-requisite(s):** *Completion of VETT 219 and 221 with a grade of "C" or better*

This course is designed to acquaint students with equipment and techniques used in veterinary laboratories. The different areas that will be discussed include hematology, lab safety, urinalysis, blood chemistries, cytology and serology.

**Credit hours: 4**

## Course Descriptions

### VETT-202 LARGE ANIMAL HEALTH & DISEASES

**Pre-requisite(s):** *Completion of VETT 219 and 221 with a grade of "C" or better*

The students will learn restraint and drug administration of common farm animals. They will also cover care, handling, and common diseases. This class will travel to local farms for practical experience.

**Credit hours: 3**

### VETT-203 LABORATORY ANIMAL & AVIAN MEDICINE

**Pre-requisite(s):** *Completion of VETT 219 and 221 with a grade of "C" or better*

This course provides basic instruction in the concepts of laboratory animal and avian health management. This course will cover the proper methods of restraint, daily care, nursing techniques, and housing needs for the common species of laboratory animals and avian patients, specific procedures that are used in laboratory animal medicine, and the issues of animal welfare as they apply to research.

**Credit hours: 3**

### VETT-212 VETERINARY PHARMACOLOGY II

**Pre-requisite(s):** *Completion of VETT 219 and 221 with a grade of "C" or better*

This course is a continuation of VETT-112. Common drugs for the diseases discussed in VETT-213 will be covered.

**Credit hours: 2**

### VETT-213 COMPANION ANIMAL DISEASES II

**Pre-requisite(s):** *Completion of VETT 219 and 221 with a grade of "C" or better*

This course is a continuation of VETT-113.

**Credit hours: 2**

### VETT-219 SEMINAR I

**Pre-requisite(s):** *Completion of VETT-111, 112, 113, and 114 with a grade of "C" or better*

This course is taken in conjunction with VETT-221. Students will keep a weekly journal and will present one case study from their preceptor.

**Credit hours: 2**

### VETT-221 PRECEPTORSHIPS I (OJT)

**Pre-requisite(s):** *Completion of VETT-111, 112, 113, and 114 with a grade of "C" or better*

The student will get on the job training at a local veterinary facility.

**Credit hours: 1**

### VETT-222 PRECEPTORSHIP II

**Pre-requisite(s):** *Completion of VETT-201, 202, 203, 212, and 213 with a grade of "C" or better*

This is an extensive external practicum where the student will function as a member of the veterinary team.

**Credit hours: 2**

## Course Descriptions

### VETT-223 VETERINARY CAPSTONE

**Pre-requisite(s):** *Completion of VETT-201, 202, 203, 212, and 213 with a grade of "C" or better*

**Co-requisite:** *VETT 222*

Discussion of case situations that encourage development of decision making skills at the veterinary technologist level. Independent study time is allocated for review and completion of national examination practice exams. Case studies will be presented in a format to illustrate problem analysis at the technologist level. This course will also prepare the student to join the workforce by covering resume writing and interview techniques.

**Credit Hours: 4**

### WLDT

#### Welding

### WLDT-101 INTRODUCTION TO WELDING PROCESSES – PART I

A basic welding course for the non-welding student. Introductory topics include: basic construction safety requirements, common hand tool usage, common power tool usage, basic ox fuel, plasma & carbon arc cutting, gouging procedures, a focus on basic SMAW/stick usage and an introduction to GMAW/MIG.

**Credit Hours: 3**

### WLDT-102 INTRODUCTION TO WELDING PROCESSES – PART II

**Pre-requisite(s):** *WLDT-101 or instructor permission*

A continuation of WLDT-101. Topics include enhanced coverage of the SMAW/stick and GMAW/MIG processes with an introduction to the GTAW/TIG process.

**Credit Hours: 3**

### WLDT-111 BASIC OXYFUEL, PLASMA AND CARBON ARC CUTTING AND GOUGING

**Co-requisite(s):** *ENGL-091 and WLDT-121*

Basic construction safety requirements, how to safely inspect and operate common hand and power tools, and basic oxyfuel, plasma, and carbon arc cutting and gouging procedures.

**Credit Hours: 3**

### WLDT-121 BASIC SMAW

**Co-requisite(s):** *WLDT-111*

Nomenclature and set up procedures for the SMAW welding process. Hands on welding experience using E6010 and E7018 electrodes welding on pads in each of the four welding positions. They will then transition to the five joints in each of the four positions.

**Credit Hours: 3**

### WLDT-122 INTERMEDIATE SMAW

**Pre-requisite(s):** *WLDT-121*

This is a continuation of WLDT 110. Welding each joint in the four positions with transition into bevel plate in all positions.

**Credit Hours: 3**

### WLDT-131 BASIC GMAW

**Pre-requisite(s):** *WLDT 121 or permission of instructor*

Students will learn safety, nomenclature and set up procedures for GMAW equipment. They will get hands on welding primarily utilizing E70 solid wire, with gas, welding on pads and in each of the four welding positions. They will then transition to the five joints in each position.

**Credit Hours: 3**

### WLDT-141 BASIC GTAW

**Pre-requisite(s):** *WLDT 121 or permission of instructor*

Safety, nomenclature and set up procedures for gas tungsten arc welding (GTAW) equipment with GTAW welding in each of the five types of joints in the four welding positions utilizing 12-gauge metal. Preparation for the ASME 6G weld qualification on 2-inch schedule-80 pipe with a GTAW root with 3/32" E7018 filler; uphill welding.

**Credit Hours: 3**

### WLDT-151 BASIC FCAW

**Pre-requisite(s):** *WLDT 121 or permission of instructor*

Students will learn safety, nomenclature and set up procedures for FCAW equipment. Students will weld primarily utilizing E70 solid wire and gas on pads and in each of the four welding positions. They will then transition to the five joints in each position.

**Credit Hours: 3**

### WLDT-161 WELD SYMBOLS AND DETAIL DRAWINGS

Welding symbols, metal shapes, their abbreviations, and weld detail prints. Students will learn to draw various detail drawings, read prints, weld procedures and determine their bill of material.

**Credit Hours: 3**

### WLDT-223 ADVANCED SMAW

**Pre-requisite(s):** *WLDT 122*

Shielded metal arc welding various metals and shapes in various positions including plate in the 6G position. Continued to progress toward the Code SMAW Unlimited AWS qualification.

**Credit Hours: 3**

### WLDT-225 CODE SMAW

**Pre-requisite(s):** *WLDT 223*

Students will prepare for American Welding Society (AWS) certification by welding 1 inch plate in all positions with concentration on vertical and overhead. Certification will be vertical and overhead, 1-inch plate with backing strip.

**Credit Hours: 3**

### WLDT-227 CODE API 1104 PIPE

Students will prepare for the API 1104 6G downhill weld qualification on 6 inch pipe. Welding will be practiced in the three positions, flat horizontal and 6G with emphasis on 6G. Welding will be with an E6010 root and E8010 filler.

**Credit hours: 3**



## Course Descriptions

### WLDT-235 CODE GMAW

**Pre-requisite(s):** *WLDT 133*

Students will prepare for American Welding Society (AWS) certification by welding of 3/8 inch plate in all positions with concentration on vertical and overhead. Certification will be 3/8" plate with backing strip in vertical and overhead positions.

**Credit Hours: 3**

### WLDT-265 METALLURGY

The study of ferrous and non-ferrous metals, their properties, composition, manufacture, weld preparation, weld-ability, heat treatment (before and after welding), and proper storage.

**Credit Hours: 3**

### WLDT-267 INTRODUCTION TO WELD THEORY

Students will learn to use the basics of welding theory in various area(s) of welding and will communicate in writing, using the technical terminology commonly used in the welding industry for inspection.

**Credit Hours: 3**

### WLDT-281 WELD INSPECTION PROCEDURES, PART 1

Reading and interpretation of the American Welding Society, the American Society of Mechanical Engineers and the American Petroleum Institute codes for welding. The writing of welding procedures and the basic methods of destructive and non-destructive testing applied to welding.

**Credit Hours: 3**

### WLDT-282 WELD INSPECTION PROCEDURES, PART 2

Detailed understanding of the American Welding Society, the American Society of Mechanical Engineers section IX. Conduct methods of destructive and non-destructive tests and interpretation of results. Determining the proper welding procedures and qualifications per ASME and AWS and API 1104.

**Credit Hours: 3**

### WLDT-291 FAB SHOP

**Pre-requisite(s):** *Welding students in their final semester or instructor permission.*

This course is designed to introduce the student into a work environment depicting the actual day-to-day operations of a fabrication shop. The student will incorporate the skills and knowledge acquired to gain experience that is required to enter the workforce successfully.

**Credit Hours: 3**

### WLDT-293 INTERNSHIP

**Pre-requisite(s):** *Instructor permission*

Special assignment in industry to correlate with the Welding Technology program. Students must have a designated industrial supervisor and faculty coordinator. Final approval will be granted by the student's department head.

**Credit Hours: 2-6.**

## Course Descriptions

### WLDT-299 SPECIAL TOPICS

**Pre-requisite(s):** *Instructor permission*

Special topics related to welding.

**Credit Hours: Variable**

### WVDH

#### Highway Engineering Technology

### WVDH-110 AGGREGATE INSPECTOR CERTIFICATION

**Pre-requisites:** *CIET-132, or permission of instructor*

This course provides an overview of the fundamental principles, physical properties, and testing procedures of aggregates as a construction material, and consists of a week-long course, a written exam, a period of practical test practice, and a practical exam. Credit hours for this course will be awarded upon successful passage of both the written and practical exams within the time frame designated by the WVDH Materials Section Material Procedures.

**Credit Hours: 3**

### WVDH-111 AGGREGATE INSPECTOR COURSE

**Pre-requisites:** *CIET-132, or permission of instructor*

This course is the lecture portion of the WVDH 110 Aggregate Inspector Certification. This credit applies to the completion of the course and passage of the written exam according to the WVDH Materials Section.

**Credit Hours: 2**

### WVDH-112 AGGREGATE INSPECTOR LAB

**Pre-requisites:** *WVDH 111*

This course is the practical portion of the WVDH 110 Aggregate Inspector Certification. This credit applied to the passage of the practical exam associated with this certification according to the WVDH Materials Section.

**Credit Hours: 1**

### WVDH-120 COMPACTION INSPECTOR CERTIFICATION

**Pre-requisites:** *CIET-132, or permission of instructor*

This course will provide an overview of the principles and physical properties of soils as a construction material, and proper practices for using compaction testing equipment in the field. This course consists of a week-long course, a written exam, practical test practice, and a practical exam. Credit hours for this course will be awarded upon successful passage of both the written and practical exams within the time frame designated by the WVDH Materials Section Material Procedures.

**Credit Hours: 3**

### WVDH-121 COMPACTION INSPECTOR COURSE

**Pre-requisites:** *CIET-132, or permission of instructor*

This course is the lecture portion of the WVDH 120 Compaction Inspector Certification. This credit applies to the completion of the course and passage of the written exam according to the WVDH Materials Section.

**Credit Hours: 2**

### WVDH-122 COMPACTION INSPECTOR LAB

**Pre-requisites:** *WVDH 121*

This course is the practical portion of the WVDH 120 Compaction Inspector Certification. This credit applied to the passage of the practical exam associated with this certification according to the WVDOH Materials Section.

**Credit Hours: 1**

### WVDH-210 ASPHALT PLANT TECHNICIAN CERTIFICATION

**Pre-requisites:** *CIET-132 and MATH 115, or permission of instructor*

This course will provide an overview of the fundamental principles, properties, and testing procedures for asphalt materials; includes asphalt mix design and plant operations. This course consists of classroom lecture, a written exam, a period of practical test practice, and a practical exam. Credit hours for this course will be awarded upon successful passage of both the written and practical exams within the time frame designated by the WVDOH Materials Section Material Procedures.

**Credit Hours: 3**

### WVDH-211 ASPHALT PLANT TECHNICIAN COURSE

**Pre-requisites:** *CIET-132 and MATH 115, or permission of instructor*

This course is the lecture portion of the WVDH 210 Asphalt Plant Technician Certification. This credit applies to the completion of the course and passage of the written exam according to the WVDOH Materials Section.

**Credit Hours: 2**

### WVDH-212 ASPHALT PLANT TECHNICIAN LAB

**Pre-requisites:** *WVDH 211*

This course is the practical portion of the WVDH 210 Asphalt Plant Technician Certification. This credit applied to the passage of the practical exam associated with this certification according to the WVDOH Materials Section.

**Credit Hours: 1**

### WVDH-220 PCC TECHNICIAN CERTIFICATION

**Pre-requisites:** *CIET 132 and MATH 115, or permission of instructor*

This course will provide an overview of the fundamental principles and properties of concrete mix design. This course consists of a week-long course, and a written exam. Credit hours for this course will be awarded upon successful passage of the written exam within the time frame designated by the WVDOH Materials Section Material Procedures.

**Credit Hours: 2**

### WVDH-230 PCC INSPECTOR CERTIFICATION

**Pre-requisites:** *CIET 132 and MATH 115, or permission of instructor*

This course will provide an overview of the fundamental principles and properties of concrete. This course consists of a partial week-long course, a written exam, a period of practical test practice, and a practical exam. Credit hours for this course will be awarded upon successful passage of both the written and practical exams within the time frame designated by the WVDOH Materials Section Material Procedures.

**Credit Hours: 2**

## Course Descriptions

### WVDH-231 PCC INSPECTOR COURSE

**Pre-requisites:** *CIET 132 and MATH 115, or permission of instructor*

This course is the lecture portion of the WVDH 230 PCC Inspector Certification. This credit applies to the completion of the course and passage of the written exam according to the WVDOH Materials Section.

**Credit Hours: 1**

### WVDH-232 PCC INSPECTOR LAB

**Pre-requisites:** *WVDH 231*

This course is the practical portion of the WVDH 230 PCC Inspector Certification. This credit applied to the passage of the practical exam associated with this certification according to the WVDOH Materials Section.

**Credit Hours: 1**

### WVDH-240 ASPHALT FIELD TECHNICIAN CERTIFICATION

**Pre-requisites:** *CIET 132 and MATH 115, or permission of instructor*

This course will provide the Asphalt Field Technician with an overview of the delivery, placement, and compaction measures required for asphalt as a construction material. The course consists of classroom lecture and a written exam. Credit hours for this course will be awarded upon successful passage of the written exam given at the conclusion of the course.

**Credit Hours: 1**