This catalog is true and correct in content and policy.

Lena Grace, Veterans Affairs Officer
4/24/24

MOUNTAIN EMPIRE COMMUNITY COLLEGE 2024-2025 CATALOG

https://www.mecc.edu/
276-523-2400
3441 Mountain Empire Road
Big Stone Gap, VA 24219

Welcome

Message from the President

On behalf of the staff and faculty of Mountain Empire Community College, it is my pleasure to welcome you to our campus. Our goal at MECC is to prepare you for meaningful employment or for successful transfer to a four-year college or university upon graduation. We are glad you have chosen MECC to pursue your educational goals. Our faculty and staff are dedicated to ensuring we provide an array of academic programs and training opportunities to create a better career and future for you and your family.

This Catalog will serve as a guide to our College's policies and procedures. MECC staff are available to assist you with any questions or concerns you may have. Please consider taking advantage of the many student support services offered at our College designed to assist you in attaining your educational goals. Most importantly, get involved in a club, organization, or activity on campus. We believe your experience at MECC will be academically and personally rewarding.

I wish you the very best in your future endeavors!

Kristen Westover, Ed.D.
President, Mountain Empire Community College

Nondiscrimination Policy and Content Statements

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Nondiscrimination Policy

Mountain Empire Community College (MECC) is an open entry institution. Its mission is to provide quality higher education and workforce training programs and services that are financially and geographically accessible and meet individual, business, and community needs. The following pathways exist:

Allied Health College Transfer Engineering Manufacturing

Arts & Music	Construction	Environmental	Public Safety
Business	Education	Health Sciences	Technology

MECC is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Harassment of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or work environment and is prohibited. Sexual violence has no place in a learning or work environment. Further, MECC shall work to eliminate violence in all its forms. Physical contact by designated system, college, and university staff members may be appropriate if necessary to avoid physical harm to persons or property.

Lack of English skills will not be a barrier to admission or participation. In order to eliminate barriers, we take appropriate measures to assess each student's ability to participate and benefit through placement testing and counseling. Based on the assessment and counseling, students are then provided with campus services or a referral to community services to be better prepared for successful participation.

Nondiscrimination Coordinators:

- Title IX Coordinator - Kristy Hall, Room 136, Godwin Hall, 276.523.7478
- Title IX Coordinator (Students) - Lelia Bradshaw, Room 133, Holton Hall, 276.523.9107
- Title IX Coordinator (Employees) - Val Lee, Room 138, Godwin Hall, 276.523.9079
- Disabilities Coordinator - Dale Lee, Room 131, Holton Hall, 276.523.9108

This document is available in alternative formats to individuals with disabilities. Consumers with hearing or speech disabilities may contact us via their preferred Telecommunications Relay Service.

Content Disclaimer

Mountain Empire Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registrations of www.mecc.edu is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student's academic advisor. In addition, a student's or prospective student's reliance upon information contained within these sources, or individual program catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the college. Further, the college reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student's enrollment or otherwise.

Links or references to other materials and websites provided in the above-referenced sources are also for information purposes only and do not constitute the college's endorsement of products or services referenced.

Bookstore Deadlines

Summer 2024:

May 27	Bookstore closed for Memorial Day
May 28	Students can begin charging to their financial aid accounts in the Bookstore
May 30	Classes begin
June 11	Last day for students to return textbooks for a refund in the Bookstore & last day for students to charge to their financial aid accounts for summer semester
June 19	Bookstore closed for Juneteenth holiday
June 24 - 28	Bookstore closed for Inventory
July 4	Bookstore closed for Independence Day
Aug 1	Rentals due back to the Bookstore

Fall 2024:

August 16	Students can begin charging to their financial aid accounts in the Bookstore
August 22	Classes begin
September 2	Bookstore closed for Labor Day
September 10	Last day for students to return textbooks for a refund in the Bookstore
September 10	Last day for students to charge to their financial aid accounts for the fall semester
October 18	Bookstore closed for Home Craft Days
November 27	Bookstore will close at noon
November 28 and 29	Bookstore closed for Thanksgiving
December 11-13 & 16-17	Textbook Buyback (9-4)
December 17	Rentals due back to the Bookstore
December 24-Jan 2	Bookstore closed for the holidays

*****Note******

Dates are subject to change due to financial aid requirements or inclement weather

Catalog Home

Mountain Empire Community College

Big Stone Gap, Virginia

Mountain Empire Community College

3441 Mountain Empire Road

Big Stone Gap, Virginia 24219

276-523-2400

http://www.mecc.edu

Mountain Empire Community College archives all past official catalogs so that relevant information for course and degree requirements sufficient to serve former and returning students is readily available. For additional information regarding hard copies and digital PDF versions of MECC official catalogs, please email info@mecc.edu.

Mountain Empire Community College provides its website, catalog, handbooks, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them is up-to-date, complete and accurate, and individuals assume any risks associated with relying upon such information without checking other credible sources, such as a student's academic advisor.

Further, the college reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program. Our students are responsible for staying abreast of all publicized changes and for complying with those changes.

Students and prospective students may find the information resources of the State Council of Higher Education for Virginia (SCHEV) of use in planning for college and careers. SCHEV has created an institutional profile for each Virginia public college and university, and for each independent college or university participating in the Virginia Tuition Assistance Grant Program.

Three ways to locate information

1. Type what you are looking for in the "Catalog Search" box, located at the top left of this page.
2. Click on "Advanced Search" to look for specific courses and/or programs.
3. Choose from the navigation bar along the left side of the page.

Degree Planner

The Degree Planner link allows you to see, save, and/or print all the information about your program of study in a condensed, printable format. To access, simply navigate to any program and click the Degree Planner link at the top right of the page.

Create Your Personal Portfolio

The Add to Portfolio feature allows you to save information in your own personal folder so you can go directly to it!

1. Click on the Add to Portfolio link at the bottom of the right menu.
2. If you are a new user, click Create an Account. You'll type your email address and a password. If you choose not to create an account, your information will only be saved until you close the catalog.
3. Then use the right menu or search box to find what you are looking for in the catalog.
4. When you want to save a section, click the Add to Portfolio link at the top right of the page.
5. The next time you go to your portfolio, your saved material will be there!

Need help?

If at any point you have questions about how to navigate this catalog, just click on the Help link at the top right of the page.

Who Can Answer My Question?

Issue	Who to Call	Contact
Academic - General Studies	Dean, Arts & Sciences	276.523.9038
Academic - Applied Science & Technology	Dean, Applied Science & Technology	276.523.7465
Academic - Business & Information Technology	Assistant Dean, Business & Information Technology	276.523.7462
Academic - Health Sciences	Dean, Health Sciences	276.523.7456
Adding or dropping a course	Your Advisor	276.523.2400
Advanced placement	Dean, Arts & Sciences	276.523.9038
Canvas	Instructional Technology	276.523.9070
Career planning	Student Services Office	276.523.9106
Change of address	Enrollment Services/Admissions	276.523.7474

Class schedule conflicts	Your Advisor	276.523.2400
Courses, electives & curriculum changes	Your Advisor	276.523.2400
Evaluation of credits	Enrollment Services/Admissions	276.523.7474
Fees, tuition & refunds	Business Office	276.523.7475
Financial aid	Enrollment Services/Financial Aid	276.523.7470
Graduation applications	Enrollment Services/Admissions	276.523.7474
ID Cards	Bookstore	276.523.7461
Lost and found	Student Services Office	276.523.7472
Non-credit or Workforce programs	Workforce Services Office	276.523.7479
Parking permits and fines	Bookstore	276.523.7461
Publicity and publications	Community Relations Office	276.523.7480
Scholarships	Enrollment Services/Financial Aid	276.523.7470
Intramurals and student activities	Student Services Office	276.523.7472
Student records	Enrollment Services/Admissions	276.523.7474
Testing	Student Services Office	276.523.7472
Tuition Payment Plan	Business Office	276.523.7475
Transcripts	Enrollment Services/Admissions	276.523.7474
Transfer information	Student Services Office	276.523.9106
Tutoring	Learning Center	276.523.9125
Veterans affairs	Enrollment Services/Veteran's Affairs	276.523.9028
Withdrawal from class or college	Your Advisor	276.523.2400
Work-study	Enrollment Services/Financial Aid	276.565.9139

For all other inquiries, please call 276.523.2400 or email info@mecc.edu

Glossary

Administrative Withdrawal: An administrative withdrawal occurs when an instructor or staff member has a student withdrawn from a course because of excessive absences, undue academic difficulty, or a serious non-academic issue.

Apply for Admission: The process of applying for entrance to the college in order to take courses. Admission applications are not required for non-credit programs.

Canvas: Canvas is a Web-based learning management system (LMS) designed to support online courses and provide a space to supplement a face-to-face course. Canvas provides many types of tools and features for enriching the learning experience.

Career Studies Certificate (CSC) Program: A program of study that consists of between 9 and 29 semester credit hours.

Catalog: The Catalog includes information about admission to the College, enrollment, degrees and certificates, and academic policies.

Certificate Program: A program of study less than two years in length that consists of between 30 and 59 semester credit hours or a short-term, non-credit program through the MECC Workforce Development Center.

Class Schedule: The class schedule lists all the courses available for each academic semester including class times, location, course information and instructor information.

Concurrent Enrollment: When a high school or home school student enrolls in college-credit bearing courses at the College.

Co-requisite: Co-requisites are courses that must be taken at the same time. A student is also permitted to complete the co-requisite course prior to the other course. For example, EGR 121 is a corequisite for EGR 125. A student may take EGR 121 before enrolling in EGR 125, or he/she may take the courses at the same time.

Credit/credit hour: Each semester hour of credit given for a course is based on the "academic hour," which is 50 minutes of formalized, structured instructional time in a particular course weekly for fifteen weeks. Courses may include lecture (instruction, discussion), laboratory (including clinical training, studio, or internship), out-ofclass study/activities or a combination thereof depending on the discipline.

Curricular student: A student who has satisfied all college admission requirements and has been placed in a degree or certificate program.

Declaring a Major (Curriculum/program placement): A major represents a degree-seeking student's primary field of study. A student must formally commit to a major, and successfully complete the courses prescribed in order to earn that certificate or degree.

Degree Program: A degree program is two years in length and consists of a minimum of 60 semester credit hours.

Developmental Courses: Developmental courses assist students in developing basic skills necessary to succeed in college transfer courses and career/technical courses.

Drop: Students may drop classes and receive a full tuition refund through the first 15 percent of the semester or term. There are no academic consequences from this action, but there may be financial aid repercussions for this drop if the student no longer meets financial aid qualifications. The course will show on the student's registration history as dropped but will not post on any unofficial or official transcripts and does not count as attempted credit.

Dual Enrollment: Provides high school students the opportunity to take college-credit bearing courses taught by college-approved high school teachers.

Enroll: Officially register as a participant/student in one or more courses.

Faculty Advisor: A faculty advisor provides academic advising and support to students within their discipline by helping them understand options, locate resources and, when necessary, identify alternatives. Once a student declares their major they are assigned a faculty advisor.

FAFSA: Free Application for Federal Student Aid.

FERPA: The Family Educational Rights and Privacy Act. FERPA protects the privacy of student education records. All educational institutions that receive federal funding must comply with FERPA.

Full-time student: A student enrolled in courses totaling 12 or more credit hours in a semester.

Hybrid Course: Hybrid classes are seated courses that meet for approximately half of the time of a traditional class. The other half of the instructional time is replaced with out-of-class activities, which may include use of technology. Hybrid courses are recognizable in the course schedule by the "R" designation in front of the course number.

HyFlex Course: HyFlex courses offer maximum flexibility for students, allowing students to choose whether to attend class in person, on Zoom, or complete assignments asynchronously online. There will still be due dates and deadlines like any other type of course, but students can move between delivery methods (attending one week in person and the next online, for example) based on their own needs and availabilities. HyFlex courses are shown in the course schedule with the "F" designation (such as ENG 111-F1).

myMECC: A web portal that allows students to access Canvas, the Student Information System, student e-mail, library services, and the Virginia Education Wizard from one location, using one login.

Non-credit: Short-term professional and personal development courses offered through the Workforce Solutions department. All classes offer Continuing Education Units (CEUs) and Continuing Professional Education (CPE). The number of CEUs awarded depends upon successful course completion and varies according to course length. For each hour of actual instruction, 0.1 CEU is awarded. For CPEs, students simply need to request them from the Workforce Solutions before class.

Non-curricular student: A student who is not formally placed into one of the College's majors but who is classified according to one of the following student goals or conditions: • updating employment skills for present job • developing skills for new job • career exploration • personal satisfaction and general knowledge • transient student • non-degree transfer student • high school student (with college approval only) • general or curricular requirements pending (with college approval only) • restricted enrollment (with college approval; auditing a course)

Online Course: In this mode of instruction, all coursework and interactions with the instructor and classmates are completed online. Online courses are recognizable in the course schedule by the "W" designation in front of the course number.

Online SSDL Course: The College also offers online courses through Shared Services Distance Learning (SSDL). SSDL courses are offered in partnership with Northern Virginia Community College (NVCC). These courses allow students to earn MECC credit while taking an online course with a NVCC instructor, as well as use the MECC Testing Centers to take proctored assessments. SSDL courses have access to all MECC services, as well as services provided by NVCC. Students enrolled in SSDL courses will receive a letter from NVCC and an invitation to participate in an online orientation, and a MECC liaison provides support during the semester. SSDL courses follow the NVCC academic calendar. Please review course notes for start and end dates. All SSDL courses have a section number that begins with the letters "E."

Part-time student: A student enrolled in courses totaling less than 12 credit hours in a semester.

Pre-requisite: A pre-requisite indicates the knowledge and skills that a student must possess before taking the present course. For example, ENG 111 is a pre-requisite to ENG 112 and must be successfully completed prior to beginning ENG 112.

Seated Course: Traditional, in-person classes that provide a face-to-face learning experience. Seated classes meet at a regularly scheduled time. Seated courses do not have any special designation in the course schedule. Specialization: A specialization is an area of concentration within an approved major, varying from the parent major by 9-15 credit hours.

Student E-mail: After a student has applied for admission to the college, a college email address is assigned to them. Students must use their college e-mail account for correspondence with faculty and staff. It is accessed through myMECC.

Student Information System (SIS): The Student Information System allows students to complete tasks such as registering for classes, paying tuition/fees, accessing personal information, viewing financial aid, viewing final grades, viewing/printing unofficial transcripts, and so much more.

Syllabus: A syllabus is an outline of course topics and a summary of course policies. It is a contract between instructors and their students, designed to answer students' questions about a course and the instructor's expectations.

Transient Student: A student who is enrolled in another college or university, but takes a course at Mountain Empire Community College.

Videoconference Course: This is a method of holding meetings that allows students who are in different cities, countries, etc., to hear each other and see each other on computer or television screens. Class meetings are scheduled just like traditional on-campus classes, but the instructor is connected to the class by a video network. Additional instruction may be in Canvas or other sources.

Virginia Placement Test (VPT): The VPT may be used to determine whether a student may benefit from developmental coursework prior to enrolling in college-level classes. Placement tests in English (writing and reading) and mathematics are generally required for all entering students seeking admission to degree and certificate programs, as well as some career studies certificate programs.

Withdrawal: An academic withdrawal from a course occurs when a student removes themselves from a course after the drop period has passed but before the first 60 percent of the semester or term. There may be financial/financial aid repercussions for this withdrawal. The academic consequences from this action include receiving the grade of "W" for the course, which will appear on any unofficial or official transcripts. A grade of "W" will not impact your GPA, and does not count as completed credit toward your degree.

General Information

- History of the College
- Mission
- Vision
- Values
- Accreditation and Program Approvals
- Consumer Information and Student Achievement
- Mountain Empire Community College Foundation
- Virginia Community College System
- College Map
- lnclement Weather
- Schedule of Classes when operating on a Snow Schedule:

Mountain Empire Community College (MECC) is a two-year public institution of higher education established as part of a statewide system of community colleges. Mountain Empire Community Colleges serves primarily the residents of Wise, Lee, Scott, and Dickenson Counties and the city of Norton.

MECC operates under policies established by the State Board for Community Colleges and the College Board. It is financed by student tuition and state funds, supplemented by contributions from localities and the college's Foundation.

History of the College

In 1966, the Virginia Assembly enacted historic legislation establishing a statewide system of comprehensive community colleges. This legislation brought most post high school education below the bachelor's level into one system, and broadened the base of higher education in the state to such an extent that Virginia, for the first time in the twentieth century, took a major step toward democratizing higher education. As comprehensive institutions, the community colleges endeavor to serve all segments of society.

In southwest Virginia, a committee comprised of local business, civic, industrial and political leaders was appointed by the local governing bodies of Lee, Scott, Wise, and Dickenson Counties and the City of Norton for the purpose of establishing a comprehensive community college. In April of 1970, the College Board had its first meeting at which Judge William C. Fugate was elected chair. Funds for construction were allocated by the State Board for Community Colleges and construction began in early 1971.

- In August 1971, Dr. George B. Vaughan was named president of Mountain Empire Community College and groundbreaking ceremonies were held in October of that same year.
- The first classes were offered in the fall of 1972. In January 1978, Dr. Victor B. Ficker assumed his responsibilities as the second president of Mountain Empire.
- The third president, Dr. Ruth Mercedes Smith, served from June 1988 to June 1991.
- Dr. Robert H. Sandel served as the fourth president from January 1992 to July 2001.
- Dr. Terrance Suarez served as the fifth president from January 2002 to June 2010.
- Dr. Scott Hamilton became the sixth president in July 2010.
- Dr. Kristen Westover became the seventh president in July 2017.

Mission

Mountain Empire Community College's mission is to provide our region with accessible, quality higher education, workforce training, and community programs to ensure an educated population and globally competitive workforce.

Mountain Empire Community College's mission is fulfilled through the following avenues:

- General Education: General Education, a component of academic programs, includes the following competencies: Communication, Critical Thinking, Cultural and Social Understanding, Information Literacy, Personal Development, Quantitative Reasoning, and Scientific Reasoning.
- Career -Technical Education: The career and technical education programs meet the increasing demand for technicians, professionals, and a skilled workforce.
- Transfer Education: The transfer education program, which includes freshman and sophomore courses in arts and sciences and pre-professional education, allows students to transfer into baccalaureate degree programs at four-year colleges and universities.
- Developmental Studies: Developmental courses are offered to correct deficiencies in basic areas, such as English, reading, and mathematics, and to prepare students who have not had the required course prerequisites for admission to specific programs.

- Dual Enrollment: Dual enrollment courses allow high-achieving students to meet the requirements for high school graduation while simultaneously earning college credit.
- Distance Education: Distance education courses and programs offer accessibility through a number of delivery modes, to include the internet, video, and off-campus locations.
- Student Services: The College provides programs, services, and resources that facilitate college access, enhance student success, develop career readiness, promote student leadership, and provide opportunities for student engagement.
- Workforce Development: Workforce development encompasses credit and non-credit training to meet workforce needs and promote economic development through programs, customized training, and on-going workshops.
- Community Services: College facilities and personnel support the cultural and educational needs of the region through cultural events, workshops, meetings, lectures, conferences, seminars, community projects, and service learning.

Vision

Mountain Empire Community College's vision is to be recognized by our community as the leader in preparing our region's educated workforce.

Mountain Empire Community College will pursue its vision by acquiring the following traits:

- Teaching will be characterized by the use of the best practices for knowledge and skills to be developed, including the involvement of businesses, the use of hands-on interactive mediums, and opportunities for real-life applications of knowledge and skills.
- Instructional delivery will employ non-traditional methods with emphasis on the use of technology. Faculty members will be facilitators of learning, mentors, and role models, exhibiting to students the importance of knowledge, competence, and a thirst for learning.
- The College will be the major provider of workforce training and a leader in community development, partnering with businesses, educational institutions, non-profits, and government to strengthen the competitiveness of the region for attracting and retaining jobs.
- The College will be an exemplary model of service and involvement to our students and the community, promoting economic development, appreciation of culture, and the quality of living in rural, southwest Virginia.

Values

Mountain Empire Community College is committed to these values:

- Community and Cultural Preservation
- Creativity and Innovation
- Diversity, Inclusion and Equity
- Honesty, Integrity and Trust
- Leadership and Service
- Learning
- Student Success
- Teamwork and Communication

Accreditation and Program Approvals

Mountain Empire Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404.679.4500 for questions about the accreditation of Mountain Empire Community College. Normal inquiries about the institution, such as admission requirements, financial aid, educational programs, etc., should be addressed directly to the institution and not to the Commission's office. Degree programs are approved by the State Council of Higher Education for Virginia, and are also approved for listing in the U.S. Office of Education directories for participation in various federally-sponsored programs of student aid and educational assistance. This institution is approved to offer GI Bill® educational benefits by the Virginia State Approving Agency and is approved by the Department of Health and Human Services for students who receive Social Security and Vocational Rehabilitation benefits. The Health Information Management program is accredited by CAHIIM (Commission on Accreditation for Health Informatics and Health Information Management. The Respiratory Therapy program is accredited by the Commission on Accreditation for Respiratory Care. The Pharmacy Technician program is accredited by ASHP (American Society of Health-System Pharmacists). The Nursing program is approved by the Virginia State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326).

Year of Graduation	**Program Completion Rate**	**Program NCLEX-RN Pass Rate***	**National NCLEX-RN Pass Rate all US Graduates***
2018 (N=190)	77%	90.53%	85.11%
2019 (N=180)	73%	87.7%	88.18%
2020 (N=197)**	81%	72.54%	82.5%
2021 (N=57)***	88%	73.68%	78.78%
2022 (N=50)	47.6%****	78.18%	77.91%
2023 (N=43)	76.7%***	97.67%	88.56%

*NCLEX National Statistics from www.NCSBN.org
**2020 were the last graduates of the Virginia Appalachian Tricollege Nursing Program at MECC
***2021 were the first graduates of the MECC Nursing Program

****Previous completion rates calculated by students completing in 150% of length of program. ACEN changed formula to graduating on time. This calculation reflects that formula change.

Year of Graduation	**Program NCLEX-PN Pass Rate**
2018	86.7%
2019	85.7%
2020	85.7%
2021	78.3%
2022	73.26%

2023	100%

The Practical Nursing and Nursing Assistant programs are approved by the Virginia State Board of Nursing. The Emergency Medical Services Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs. The Phlebotomy program is approved by the National Phlebotomy Association. The Computer Aided Drafting & Design Technology, Technical Studies- Welding, Computer Manufacturing Technology - Electromechanical Technology, and Computer Manufacturing Technology-Industrial Electronics are accredited by the Association of Technology, Management, and Applied Engineering (ATMAE).

Licensure Reciprocity

	Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
Emergency Medical Services	NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY	IL, MT	
Nursing	RN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, OH, OK, SC, SD, TN, TX, UT, VA, VT, WV, WI, WY	AK, CA, CT, HI, IL, , MA, MI, MN, NV, NY, DC, OR, RI, WA	PA, Guam, Virgin Islands
Practical Nursing	LPN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, OH, OK, SC, SD, TN, TX, UT, VA, VT, WV, WI, WY	AK, CA, CT, HI, IL, MA, MI, MN, NV, NY, DC, OR, RI, WA	PA, Guam, Virgin Islands
Respiratory Therapy	RRT CRT	AL, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC,		AK - Currently do not have a state licensure for RT

		SD, TN, TX, UT, VT, VA, WA, WV, WI, WY		

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*
- *Further information regarding EMS certifications may be found at: https://nasemso.org/*
- *Further information regarding RT state licensure requirements may be found at: https://www.aarc.org/advocacy/state-society-resources/state-licensure-contacts/*

Statement for Emergency Medical Services (EMS):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Statement for Nursing program (ADN):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The Mountain Empire Community College ADN program meets all Virginia Board of Nursing requirements for prelicensure nursing education programs in the Commonwealth of Virginia. In addition, the Mountain Empire Community College ADN program meets all requirements for nationally recognized accreditation by the Accrediting Commission for Education in Nursing.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 8, 2023.

Statement for Practical Nursing program (LPN):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Certificate in Practical Nursing (LPN) program provides the following information for all prospective and current students:

The Mountain Empire Community College LPN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 10, 2022.

Statement for the Respiratory Therapy program (RT):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associates Degree in Respiratory Therapy (RT) program provides the following information for all prospective and current students:

The Mountain Empire Community College RT program meets all the requirements of the Commission on Accreditation for Respiratory Care (CoARC) and remains in good standing with this national accrediting body. All students upon successful graduation from the program are eligible to sit for their national boards through the National Board for Respiratory Care (NBRC). This program accreditation and national board credentialing will allow graduates

to obtain licensure in 49 of the 50 states plus the District of Columbia. Alaska currently does not have a state licensure mandate for RT. But the graduate would still be able to obtain employment in Alaska upon completion of this program.

Licensure endorsement is available in 49 of the 50 states plus the District of Columbia.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Consumer Information and Student Achievement

Mountain Empire Community College relies on its mission to drive its processes used to identify the College's goals and outcomes for student achievement. The mission of Mountain Empire Community College is to provide our region with accessible, quality higher education, workforce training, and community programs to ensure an educated population and globally competitive workforce. To achieve its mission, the College offers a variety of programs and services to meet the diverse needs of its students and the community, including the needs of regional employers.

The College evaluates student achievement by means of external and internal reviews by programmatic areas, as well as overall college goals. The evaluation criteria supporting the College mission include enrollment, retention, graduation, and transfer rates, as well as national and state certification and licensing examination results.

As one of 23 colleges within the Virginia Community College System (VCCS), MECC receives benchmark data from the VCCS annually for each of the criteria used for evaluating student achievement. The State Council of Higher Education for Virginia (SCHEV) also publishes data via the SCHEV website that is specific to MECC and other Virginia educational institutions. MECC strives to exceed a threshold of achievement that is greater than national or state averages that are consistent with current trends in education.

For more information on MECC's enrollment, achievement data, and strategic planning data, please visit www.mecc.edu/consumer-information.

Mountain Empire Community College Foundation

The MECC Foundation, Inc. is a non-profit organization that supports the mission of Mountain Empire Community College.. Foundation projects include scholarships, faculty and staff development and recognition programs, cultural programs and events, campus improvements, educational programs, and other projects. The Foundation awards scholarships to qualified persons for the purpose of attending Mountain Empire Community College. These awards are based on criteria such as financial need and scholastic promise, and are available to persons who are enrolled or intend to enroll in specific programs. Scholarship recipients are selected by the MECC Office of Financial Aid. For more information, visit www.meccfoundation.org.

Virginia Community College System

Mountain Empire Community College is one of 23 two-year colleges that make up the Virginia Community College System (VCCS). The VCCS was established in 1966 with a mission that complements the missions of the secondary schools and the senior colleges and universities in the Commonwealth of Virginia. The VCCS mission states: "We give everyone the opportunity to learn and develop the right skills so lives and communities are strengthened." For more information, visit www.vccs.edu.

College Map

Campus Map

lnclement Weather

When it is necessary to change the College schedule due to inclement weather or other unforeseen circumstances, the announcement will be made on the College's website at www.mecc.edu, via text message, email, and radio and television stations. The following radio and television stations will announce the schedule change:

- WCYB-TV (Channel 5)
- WDIC-FM 92.1
- WAXM-FM 93.5
- WXBQ-FM 96.9
- WJHL-TV (Channel 11)
- WJNV-FM 99.1
- WQUT-FM 101.5

Students may register at www.mecc.edu/textalerts to receive announcements of schedule changes by text message and email.

Understanding Announcements:
Snow Schedule: Online classes will be held as normal with no schedule changes. In-person classes begin at 10 a.m. Employees report at 9:30 a.m. if working on campus. Employees teleworking will work as scheduled.

College Closed: Online classes will be held as normal with no schedule changes. In-person day and evening classes and all services are canceled. Employees teleworking will work as scheduled.

Day and/or Evening Classes are canceled: Online classes will be held as normal with no schedule changes. In-person classes will be canceled. Employees teleworking will work as scheduled. College is open for all other services by non-teleworking employees.

Schedule of Classes when operating on a Snow Schedule:

Normal Schedule	Snow Schedule
8:15 a.m. - 9:30 a.m.	10:00 a.m. - 11:00 a.m.
9:40 a.m. - 10:55 a.m.	11:05 a.m. - 12:05 p.m.
11:05 a.m. - 12:20 p.m.	12:10 p.m. - 1:10 p.m.
12:20 p.m. - 12:50 p.m.	1:10 p.m. - 1:40 p.m.
12:50 p.m. - 2:05 p.m.	1:45 p.m. - 2:45 p.m.
2:15 p.m. - 3:30 p.m.	2:50 p.m. - 3:50 p.m.
3:40 p.m. - 4:55 p.m.	3:55 p.m. - 4:55 p.m.
5:00 p.m.	Classes meet as normal

Schedule of In-Person exams when operating on a Snow Schedule:

Exams scheduled at 8:15 a.m. will begin at 10 a.m.

Exams scheduled at 11:05 a.m. will begin at 12:10 p.m.

Exams scheduled at 2:15 p.m. will begin at 2:50 p.m.

Evening exams will be held as regularly scheduled

Step 1: Apply for Admission

- Admission Requirements
- Dual Enrollment Student Admissions
- Transfer Students
- Senior Citizens - Citizens 60 Years of Age or Older
- International Applicants for Admission
- Out-of-State Students
- Sex Offender and Crimes Against Minors Admission Policy

To apply to attend MECC, you must complete the Virginia Community College System (VCCS) online application, located at www.mecc.edu/apply. After completing and submitting your application, you will receive a student ID number and username on your confirmation page. Print this page or write down this information for your records. For non-credit class enrollment, visit the Workforce Solutions web page at www.mecc.edu/workforce.

Admission Requirements

Individuals are eligible for admission to the community college if they are high school graduates or the equivalent, or if they are eighteen years of age or older and able to benefit academically from study at the community college, as demonstrated by assessment in reading, writing, and mathematics. Minimum scores are noted in the chart below. Colleges may allow students who are in their final semester of high school or home school to enroll in summer courses. These students must provide documentation of graduation in order to enroll in subsequent semesters.

	VPT
Reading	EDE 10
Writing	EDE 10
Math	MDE 10

Exceptions to this policy may be made by the college president only for documented reasons.

MECC reserves the right to evaluate and document special cases and to refuse or revoke admission if the college determines that the applicant or student poses a threat, is a potential danger, is significantly disruptive to the college community, or if such refusal or revocation is considered to be in the best interest of the college. MECC also reserves the right to refuse admission for applicants that have been expelled or suspended from, or determined to be a threat, potential danger or significantly disruptive, by another college. Students whose admission is revoked after enrollment must be given due process.

Individuals may be admitted to MECC as curricular or non-curricular students. Curricular students are those placed in degree, certificate or career studies certificate programs. All other students are considered non-curricular.

For all curricular students, the following items are required:

- A completed official application for admission.
- Unless otherwise specified by the College, official transcripts from all high schools, colleges, and universities attended. Graduates who complete secondary school in a home school setting must provide a graduation date and may be required to provide documentation of coursework. The VCCS Student Information System academic records will be sufficient for colleges within the Virginia Community College System.
- Additional information as stated by the college for admission to specific programs or curricula.

For all non-curricular students, a completed official application for admission is required.

The VCCS shall promote and maintain equal employment and educational opportunities without regard to race, color, religion, disability, sex, sexual orientation, gender identity, ethnicity, marital status, pregnancy, childbirth or related medical conditions including lactation, age (except when age is a bona fide occupational qualification), status as a veteran, national origin, or other non-merit factors.

Special Admission Procedures

Dual Enrollment Student Admissions

The major purpose of community colleges is to serve students who have graduated from high school or are beyond the compulsory age limit of the public school and have left public school. However, a qualified high school student may enroll at a community college subject to the following conditions:

Dual Enrollment Partnerships
Dual enrollment partnerships are governed by an annually renewable contractual agreement between the school or district and the community college to allow academically qualified high school juniors and seniors to enroll in college courses that are applicable to degree, diploma, certificate, or career studies certificate programs offered at the college. Students from school divisions with whom the college has a current dual enrollment contractual agreement may enroll in college classes at the community college for dual enrollment credit. Courses taken for dual enrollment credit shall be transcripted on both the student's college and high school transcripts.

High School Based Dual Enrollment Programs and Courses
Colleges and school divisions may develop contractual agreements to offer dual enrollment program pathways, academies, and courses at the high school. Such offerings may be taught by approved high school teachers who meet Virginia Community College System faculty credential requirements and are qualified by the college to teach course(s) in the program of study. College faculty and administrators are responsible for identifying high school dual enrollment offerings; selecting and qualifying high school faculty to teach college courses; professional development of dual enrollment faculty; and oversight and evaluation of program standards, including assessment of student learning outcomes, program learning outcomes and instructional effectiveness.

Early College, Dual Enrollment Programs and Academies
Colleges and school divisions may develop contractual agreements to offer dual enrollment program pathways and academies on the college campus. Such courses are taught by full-time or adjunct community college faculty.

Independent Dual Enrollment
Independent dual enrollment allows individual high school students to enroll in courses at the community college. A qualified high school junior or senior may be admitted to any college-level credit-bearing course, with permission of the high school principal or designee and the parent. Participation in independent dual enrollment does not require a contractual agreement between the college and the school division. However, a high school student must meet dual

enrollment admissions standards. Courses taken as independent dual enrollment shall be transcripted on the student's college transcript.

Private, Public, and Homeschooljuniors and seniors who meet each of the following criteria may register in collegelevel credit-bearing courses:

1. The student submits an Application for Admission.
2. The student is a rising public or private high school junior or senior, or homeschool student studying at the high school junior or senior level.
    1. The high school student has permission of the principal or designee, and the parent.
    2. The homeschool student has permission of the parent.
3. The student demonstrates readiness for each collegelevel credit-bearing course in which they want to enroll. High school and homeschool students are not eligible to enroll in developmental or direct placement co-requisite English and Math courses. In demonstrating readiness, a student must meet one of the criteria established for each type of course in which they want to be registered:

Course Type	**High School Transcript**		**SAT**		**PSAT**		**ACT**		**VPT**
Transfer** Courses (except math)	Current cumulative high school GPA of 3.0 or higher	or	ERW score of 480 or higher	or	ERW score of 390 or higher	or	18 or higher on both English and writing subject area tests	or	Placement into ENG 111
Career and Technical*** Courses (except math)	Current cumulative high school GPA of 2.0 or higher	or	ERW score of 480 or higher	or	ERW score of 390 or higher	or	18 or higher on both English and writing subject area tests	or	Placement into ENF 1 or higher
MTH 101-MTH 133	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in a high school math course	or	ERW score of 480 or higher and math score of 530 or higher	or	ERW score of 390 or higher and math score of 500 or higher	or	22 or higher on math subject area test	or	Placement into MTH 111 or higher (Satisfaction of MTE 1-3)
MTH 154, MTH 155	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in a high school math course	or	ERW score of 480 or higher and math score of 530 or higher	or	ERW score of 390 or higher and math score of 500 or higher	or	22 or higher on math subject area test	or	Placement into MTH 154 or higher (Satisfaction of MTE 1-5)
MTH 161, MTH 167 *Individual colleges may establish criteria for direct placement into calculus or other high level math course*	Current cumulative high school GPA of 3.0 or higher and a 2.0 (C) grade or higher in Algebra 2 or a higher level math course	or	ERW score of 480 or higher and math score of 530 or higher	or	N/A	or	22 or higher on math subject area test	or	Placement into MTH 161 or higher (Satisfaction of MTE 1-9)

4. In addition to meeting the eligibility criteria above, a dual enrollment student must meet all course pre/corequisites as listed in the VCCS Master Course File and established by the college at which the student is enrolled in the course.

Dual enrollment is restricted to rising high school juniors and seniors and home school students studying at the high school junior or senior levels. Admitting high school or home school students below the junior or senior level is considered exceptional. The college-ready status of each prospective student below the junior or senior high school level shall be assessed on a case by-case basis. Such students must meet the above eligibility criteria and any other criteria as may be established by the college for participation of students below the junior or senior level in dual enrollment. Colleges shall have criteria and procedures for the case-by-case assessment of such students. Formal approval by the college president, or designee, is required for applicants who are below the junior or senior high school level to participate in dual enrollment.

**Cumulative GPA may be weighted or unweighted and may be self-reported.*
***A transfer course is any course that a college offers and will transcript in fulfillment of the requirements for a Degree or Certificate that is designed to transfer (e.g., AA, AS, AA&S, AFA, Uniform Certificate of General Studies).*
**** A career and technical course is any course that the college offers and will transcript in fulfillment of the requirements for degrees and certificates that are not designed for transfer (e.g., AAS, Certificate, Career Studies Certificates).*

Transfer Students

Normally, transfer students who are eligible for reentrance at the last college of attendance are also eligible for admission to Mountain Empire Community College.

Transfer students who are ineligible to return to a particular curriculum in a previous college generally may not be allowed to enroll in the same curriculum in the community college until one semester elapses or until an approved preparatory program at the College is completed. Upon appeal from an ineligible student, the Student Affairs Committee of the College will decide on each case and can impose special conditions for the admittance of transfer students. If a transcript is received after class enrollment has begun, which indicates that the student is ineligible to return to the previous college, the student may be withdrawn from classes and offered the opportunity to appeal to the Student Affairs Committee.

It is the role of the community college to help each student succeed in a program from which he/she can benefit. Early application and submission of all transcripts will facilitate this effort. The document required for acceptance of transfer credit from other institutions is an official transcript of all postsecondary credits previously earned.

Each student transferring from another college should consult Enrollment Services/Registrar at MECC for an assessment of credits. No credit shall be given for courses with grades lower than 'C'. A transfer student may be advised to repeat courses if it is clearly advantageous to their curriculum advancement. The College will provide transfer students an evaluation of credits that will transfer from other institutions prior to enrollment when possible, but at least no later than the end of the first academic term of enrollment. When the course contains similar or like content and credit, the course will transfer as the equivalent of this institution's course. When the content is unlike any course offered at MECC, elective credit may be granted. Credit from non-regionally accredited colleges and universities is evaluated based upon recommendations in Transfer Credit Practices of Designated Educational Institutions published by the American Association of Collegiate Registrars and Admissions Officers. Any VCCS course in which a student received a grade of "C" or better (excluding general usage courses) will transfer as the same course at any other college in the VCCS.

The academic division dean in which the student is enrolled will determine how the evaluated transfer credit may be applied toward the student's program of study.

Senior Citizens - Citizens 60 Years of Age or Older

Senior citizens are encouraged to take advantage of free tuition provided for by the Senior Citizens Higher Education Act of 1974, As Amended 1976, 1977, 1982, 1988, 1999, 2003 and 2015.

Subject to SCHEV regulations and any legislative revisions, the Act gives senior citizens certain rights.

1. "Senior citizen" shall mean any person who, before the beginning of any semester in which such person claims entitlement to senior citizen benefits, (1) has reached sixty years of age, and (2) has had legal domicile in Virginia for one year.
2. A senior citizen shall be entitled:
    1. To register for and enroll in courses as a full-time or parttime student for academic credit if such senior citizen had a taxable individual income not exceeding $23,850 for Virginia income tax purposes for the year preceding the year in which enrollment is sought;
    2. To register for and audit courses offered for academic credit regardless of income level; and
    3. To register for and enroll in courses not offered for academic credit regardless of income level.
3. Such senior citizen shall pay no tuition or fees for courses offered for academic credit or for courses not offered for academic credit, except fees established for the purpose of paying for course materials, such as laboratory fees, subject to determination by the institution of its ability to offer the course or courses for which the senior citizen registers. The Council of Higher Education shall establish procedures to ensure that tuition-paying students are accommodated in courses before senior citizens participating in this program are enrolled. However, the state institutions of higher education may make individual exceptions to these procedures when the senior citizen has completed seventy-five percent of the requirements for a degree.

For more information, visit the Office of Enrollment Services or www.mecc.edu/senior-citizens.

International Applicants for Admission

Mountain Empire Community College is authorized under federal law to enroll international students. The College welcomes applications from international students who meet the qualifications set forth in these guidelines. All stated requirements are subject to change based upon federal regulations or a determination by the College that a policy change is in the best interests of the student and/or the College community.

International applicants will be admitted only if they fulfill all general and special requirements for admission. International students are considered out-of-state residents for purposes of determining tuition rates and admission to programs with limited enrollment.

Students who acquired a student visa through acceptance by another school or college will not be considered until they have secured a written release from the original institution. F-1 transfer students must begin classes within five months of the date of last attendance OR program completion date at their current school (whichever date is earlier). If the next available term does not begin within five months of your date of last attendance or program completion date at your current school, you may be required to depart the U.S. and re-enter the country in initial status to begin your new program. When your admission to MECC pursuant to an I-20 is complete and your SEVIS record is released to MECC, you must report to Enrollment Services within 15 days of the program start date indicated on your I-20 to complete your transfer.

Application Deadlines
All documentation must be received by June 1 for fall admission or October 1 for spring admission.

Financial Responsibility of International Students
No financial aid is available for international students.

All international applicants must review and submit all required documentation included in the Mountain Empire Community College International Student Admission Packet. The packet includes information concerning enrollment and tuition/fee payments; MECC Admission Checklist; Application deadlines; MECC I-20 Application; F-1 Transfer Application; Financial Requirements; English Proficiency requirements; Emergency Contact Information; Health Insurance Requirements; Degree Programs available for international applicants; Sponsor's Affidavit of Support; and Financial Application (Bank Verification of Deposit). You can access this packet via www.mecc.edu/international.

If the applicant is under eighteen, the parent or legal guardian must submit the notarized statement of financial support.

English Proficiency of International Students
International students must document proficiency in the English language by submitting a TOEFL (Test of English as a Foreign Language) score. Official copies of the TOEFL scores must be submitted to Enrollment Services/Admission. The TOEFL test is required of all applicants. A minimum international TOEFL score of 61 iBT is required, although achieving that score is no guarantee of admission. The applicant is responsible for making early arrangements for taking the TOEFL. The website is https://www.ets.org. On the application for the test, the student should specify that the scores be sent to Enrollment Services/ Admission at MECC. The official results of the TOEFL must be received at MECC by the application deadline.

Applicants who are in the United States and who have not taken the TOEFL or achieved the minimum cut score, may petition the College to evaluate them for admission during a visit to the campus. Transfer applicants who have completed two semesters or terms of a non-ESL English composition course with above-average grades at an American college or university are not required to submit TOEFL scores.

Academic Transcripts of International Students
Non-English transcripts and documents must be submitted in their original form, accompanied by a certified English translation. Unofficial documents and documents without accompanying English translations are not acceptable.

International transfer students must submit a syllabus of university study. This description of each course or subject studied must be submitted in English or accompanied by a certified English translation of the syllabus. Applications without this information cannot be considered. It is recommended that transfer students seeking admission from international educational systems have a professional evaluation service review their transcripts and other educational credentials. Students currently enrolled in a U.S. system must still have their international transcripts evaluated.

International Applicant Contact
For additional information about the process for international applicants please contact the Enrollment Services Office at 276.523.9028.

Out-of-State Students

Students who do not reside in the state of Virginia should contact the Office of Enrollment Services for information regarding admission as an out-of-state student.

Sex Offender and Crimes Against Minors Admission Policy

Section 23.1-407 of the Code of Virginia requires that the VCCS send enrollment information to the Virginia State Police concerning applicants to institutions of higher education. This information is transmitted electronically and compared against the Virginia Criminal Information Network and National Crime Information Center Convicted Sex Offender and Crimes Against Minors Registry.

Step 2: Apply for Financial Aid

- Deadlines to Apply for Financial Aid
- Financial Aid
- Eligibility Requirements for Federal, State and VCCS Programs
- Enrollment Requirements
- Aid Programs Available
- Veterans Information

MECC encourages all eligible degree and certificate seeking students to apply for financial aid at https://studentaid.gov. Financial aid may come in the form of grants, scholarships, and work-study positions. MECC's school code to include on the FAFSA form is 009629.

Deadlines to Apply for Financial Aid

Although you can file the online FAFSA anytime, it is best to complete the FAFSA prior to July 1 of the year that you plan to attend MECC. Please review MECC's financial aid webpage at www.mecc.edu/paying-for-college for deadlines and more details about financial aid. You can also research available scholarships at www.mecc.edu/scholarships. To be eligible for the Promise Program, students mus have their financial aid file completed by August 1.

Financial Aid

All Student Financial Aid Programs are administered by the Department of Enrollment Services and Financial Aid and include grants, scholarships, and employment. Necessary forms and information are available from Enrollment Services/Financial Aid in Fox Central located in Holton Hall. Application for most aid programs is possible by completing the Free Application for Federal Student Aid at www.studentaid.gov and the MECC Foundation Scholarship Application at www.mecc.edu/scholarships.

The philosophy of the College is that, "No student should be denied the opportunity for a postsecondary education due solely to a lack of financial resources." To be eligible for financial aid the student must be enrolled in an academic plan leading toward a certificate, diploma, or degree. Course selection should follow a planned program of study.

Eligibility Requirements for Federal, State and VCCS Programs

Eligibility for federal, state, and VCCS programs is based on financial need and several other factors. The Free Application for Federal Student Aid (FAFSA) must be filed at https://studentaid.gov. Many financial aid programs are awarded on a first-come, first-serve, basis so it is important to apply early. The financial aid administrator at the College will determine eligibility. Basic eligibility requirements require that students:

- Demonstrate financial need
- Have a valid high school diploma or a General Education Development (GED) certificate or complete a high school education in a home school setting that is treated as such under state law (Note: Ability-to-Benefit (ATB) alternatives may qualify students without a valid high school diploma or its equivalent. Alternatives include passing an ability-to-benefit test approved by the U.S. Department of Education, meeting other standards the state establishes that the Department approves, or satisfactorily completing six credit hours or

the equivalent course work toward a degree or certificate. For more information, contact Financial Aid at 276.523.7470.

- Be enrolled or accepted for enrollment as a regular student working toward a degree or certificate in an eligible program
- Be a U.S. citizen or eligible noncitizen
- Have a valid Social Security Number
- Register with the Selective Service (if male and if required) only applicable to state aid
- Maintain satisfactory academic progress
- Certify that they are not in default on a federal student loan and do not owe money on a federal student grant
- Certify that they will use financial aid only for educational purposes
- Only receive aid for courses required to complete program

Financial Aid for Home School Graduates

- Home school graduates of a secondary school curriculum may receive federal financial aid.

Virginia Alternative State Aid (VASA)

- Students who are unable to complete the Free Application for Federal Student Aid (FAFSA) can now be considered for state financial aid by submitting the Virginia Alternative State Aid (VASA) application. https://www.levelupvirginia.org/financie/financial-aid/vasa-application.

Enrollment Requirements

To receive financial aid a student must be enrolled in a program of study leading to a certificate or degree. Most aid awards are adjusted based on the number of credits. Students registered for 12 or more credits generally receive 100% of aid awarded. Students enrolled in less than 12 credits will have their aid adjusted for enrollment intensity. If you are registered for less than 6 aid eligible credits your aid may be limited to federal Pell grant only at a pro-rated amount.

Aid Programs Available

MECC does not participate in the Federal Family Education Loan Programs. However, the College does participate in the following grant, work, and scholarship programs.

Federal Programs
Federal Pell Grant: Federal Pell Grants are awarded to eligible undergraduate students who have not earned a bachelor's or a professional degree. Eligibility is primarily based on the Student Aid Index (SAI) from the Student Aid Report (SAR), but is also affected by enrollment status.

A minimum of 12 credit hours each semester is required to receive the full amount of aid awarded. Students enrolled in less than 12 credit hours will have their aid reduced based on enrollment intensity. Eligible students will be awarded once the Free Application for Federal Aid (FAFSA) and any required documentation have been received.

FSEOG (Federal Educational Supplemental Opportunity Grant): FSEOG is for undergraduate Federal Pell Grant recipients with exceptional financial need (i.e., students with the lowest SAIs). Eligible students will be awarded once the FAFSA and any required documentation have been received on a first-come, firstserved basis until funds have been exhausted.

Federal Work Study: Federal Work-Study (FWS) provides part-time jobs for undergraduate students with financial need, allowing them to earn money to help pay education expenses. The program encourages community service work and work related to the recipient's course of study. Students are paid by the hour usually twice per month. Wages for the program must equal at least the current federal minimum wage but might be higher, depending on the type of work

and the skills required. The amount earned cannot exceed the total FWS award. When assigning work hours, consideration will be given to the student's award amount, class schedule, and academic progress. Eligible students who have already been awarded other aid and wish to be considered for FWS are advised to contact the College.

State Programs
Priority for state programs is given to students who do not already possess a bachelor's or professional degree and have met the College's priority date for applying for financial aid. Eligible students will be awarded once the FAFSA and any required documentation have been received on a first-come, first-served basis until funds have been exhausted.

COMA (Commonwealth Grant): Students receiving COMA must be domiciled in Virginia, show financial need by means of needs analysis and be enrolled on at least a half-time basis (at least six credits). Funding is provided solely by the Commonwealth of Virginia. Individual awards vary dependent upon need and funding level. Awards Range from $1,000 to $1,800 and can be used for tuition, fees, and books.

VGAP (Virginia Guaranteed Assistance Program): Students receiving VGAP must meet requirements similar to COMA recipients. However, students must have achieved a 2.5 GPA in high school, have exceptional financial need and maintain full-time enrollment as a dependent student. Awards vary from $1,100 to $2,200 for tuition, fees and books. Renewal students must maintain a 2.0 G.P.A. and continuous full-time enrollment (summer terms are excluded).

Part-Time Tuition Assistance Program (PTAP): This VCCS-funded grant provides tuition assistance only (no fees) to students in a degree or certificate program who enroll for at least 1 but less than 8 credits. Students must show need.

MECC Programs
Presidential Honor Scholarships: Awarded by the President and Local Advisory Board of MECC to enrolled students who are valedictorians and salutatorians of public or private high schools in MECC's service region. Public high schools must be accredited by the State Department of Education and private high schools must be accredited by an accreditation association approved by the Virginia Council for Private Education. The student must enroll during the fall semester following high school graduation to receive this scholarship. Awards are for full tuition and fees, and are renewable for the second year based on the student's GPA.

Mary Marshall Nursing Scholarship: Established by the General Assembly for Virginia residents who show financial need. The deadline for applications from new nursing students is June 21. Completed applications must be returned to the Financial Aid Office by June 15. Awards vary. Application is available online at http://www.vdh.virginia.gov/OMHHE/primarycare/incentives/nursing/indext.htm.

AIMS Scholarship:. Graduating high school seniors are eligible for this scholarship, which guarantees that the student pays no tuition and/or fees at MECC for up to three years (or 72 credit hours), if they meet the qualifications. For specific information please visit www.mecc.edu/aims.

Restricted Scholarships
There are also restricted scholarships provided by industries and organizations. Students should apply directly to each organization for consideration. Enrollment Services/Financial Aid encourages students to apply early, particularly while still in high school.

MECC Foundation, Inc.
The MECC Foundation, Inc. has been established to assist the College in providing student aid. The Foundation is a charitable, nonprofit corporation which provides an appropriate means for individuals, organizations, business and industry to contribute to the College. To learn more about the MECC Foundation, visit www.meccfoundation.org.

VCCS Programs
VCCS Grant: The VCCS Grant provides assistance to Virginia residents at Virginia's Community Colleges who demonstrate financial need. Award amounts cannot exceed tuition, fees, and books per academic year. This grant will not be awarded as part of the initial aid package. It may be awarded during the repackaging process that takes place after the end of the add/drop period where aid is based on actual enrollment.

Great Expectations Program: The Great Expectations Program provides tuition and fees at any Virginia community college for high school graduates or general education development (GED) completers in foster care, in the custody of a social services agency, or considered a special needs adoption. More information is available at www.mecc.edu/great-expectations/.

G3 - Get a skill. Get a job. Get ahead: G3 tuition assistance is for students living in Virginia who qualify for state financial aid and whose family income falls below an identified threshold. G3 is a last-dollar scholarship that can be used for designated programs in five of Virginia's most in-demand industries: Early Childhood Education, Healthcare, Information Technology, Public Safey and Skilled Trades. For more information and eligibility requirements, please visit www.mecc.edu/g3.

Veterans Information

Enrollment Services/Veterans Affairs provides services to veterans, transferees, spouses, and dependents enrolled at Mountain Empire Community College. Assistance is primarily provided with receipt of veterans' educational benefits. The office of the MECC Veterans Affairs Officer, Lena Grace, is in Robb Hall, Room 106. Enrollment Services/Veterans Affairs is not a part of the Veterans Administration Regional Office.

Application Procedure
Veterans, transferees, spouses, or dependents must first apply for Veterans Education Benefits at www.benefits.va.gov/gibill. After submission of application, contact the MECC Veterans Affairs Officer in Robb Hall, Room 106.

Veterans
Submit a copy of your DD Form 214 (Member 4); Have your military transcripts sent to MECC, Enrollment Services. If you served in the Army, Coast Guard, Marine Corps, or Navy) request your Joint Services Transcript at https://jst.doded.mil/jst/. If you served in the Air Force, request your military transcripts through the Air Force Transcript Portal at https://www.airuniversity.af.edu/Barnes/CCAF/Display/Article/803247/community-college-of-the-air-force-transcripts.

As transcripts are submitted, transcripts will be reviewed, and credits will be applied to your program of choice. You will receive a notification informing you of all transfer credits applied to your program.

If you have any questions regarding your qualifications for veterans benefits or to explore your options for maximum use, please call the Veterans Administration toll-free number at 1-888-442-4551 or visit the website www.benefits.va.gov/gibill.

If you are transferring to MECC from another place of training, or you have not been enrolled for at least one year, a Request for Change of Program/Place of Training will be required.

To ensure smooth processing of VA claims, it is important to apply early. Applicants normally receive notification from the Department of Veterans Affairs within 30 days after an application is submitted. A copy of the Certificate of Eligibility must be submitted to Enrollment Services/Veterans Affairs.

Certificate of Understanding
All VA recipients are required to submit a signed MECC Certificate of Understanding (COU) prior to receiving any VA Education Benefits based on enrollment through MECC.

Enrollment Certification
VA recipients must be enrolled in an approved program of study. To receive full-time monthly stipends/BAH, the VA recipient must be enrolled full-time. Post-9/11 G.I. Bill recipients must be enrolled in at least 51% of a full course load to receive a monthly housing allowance. The College will certify enrollment as a full-time at 12 credits or above; three-quarter time at nine to eleven credit hours; half-time at six to eight credit hours; less than six hours for cost of tuition

and fees only. Certifications listed above are based on continuous enrollment for the entire 15-week semester. Please contact the MECC Veterans Affairs Officer for certification information for short or special sessions.

Upon completion of enrollment, VA recipients are required to submit the Certification Request for VA Educational Benefits form to Enrollment Services/Veterans Affairs. An online form and a fillable/printable pdf form are located on our website at https://www.mecc.edu/veterans/. It is important to enroll early and submit your documentation by the priority deadline. VA recipients will receive a certification email each semester indicating the rate of pursuit that has been certified. In addition, the first semester a recipient enrolls in a program/plan, a Shopping Sheet and a copy of the program/plan from the College catalog will be included in the certification email.

VA recipients are required to notify Enrollment Services/Veterans Affairs immediately of any changes in enrollment that occur after benefits have been certified to the DVA.

All academic policies as included in this catalog apply equally to all students at Mountain Empire Community College. However, there are a few guidelines specifically applicable to the administration of veterans certified for benefits through the Veterans Administration.

1. Veterans Affairs Officer will consult with VA recipients who fail to attend classes regularly.
2. Veterans Affairs Officer will report to the Veterans Administration as soon as possible any change in the status of VA recipients, including change in curriculum, reduction or increase in course-load or withdrawals.
3. Veterans who fail to maintain good academic standing must be counseled by an Academic Advisor at the College prior to veteran's benefits being reinstated.
4. Mountain Empire Community College grading policies will be used to determine whether VA recipients are maintaining satisfactory progress. According to College and the Veterans Administration policies, students must make satisfactory academic progress. If suspended or dismissed, students must appeal to the Student Affairs Committee and meet with Student Affairs Committee. Students who have been reinstated must achieve a 2.0 GPA for the semester of their reinstatement. At the conclusion of this semester, enrollment of successful students receiving veterans' educational benefits will be certified.
5. The physical education requirements for the degree, certificate, and career studies certificate programs may be waived for veterans

Veterans Access, Choice, and Accountability Act of 2014 and the Colonel John M. McHugh Tuition Fairness Act of 2021, effective August 1, 2022, with amendments as required under 38 USC 3679:
The following individuals shall be charged the in-state rate, or otherwise considered a resident, for tuition purposes:

- A veteran using educational assistance under either Chapter 30 (Montgomery G.I. Bill® - Active Duty Program) or Chapter 33 (Post-9/11 G.I. Bill), of Title 38, United States Code, who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of their formal state of residence).
- Anyone using transferred Post-9/11 GI Bill benefits who lives in the state where the IHL is located, and the transferor is a member of the uniformed service serving on active duty.
- A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (35 U.S.C. § 3311(b)(9) who lives in the Commonwealth of Virginia while attending a school located in the Commonwealth of Virginia (regardless of their formal state of residence).
- A spouse or child using benefits under Survivors' and Dependents' Education Assistance (Chapter 35) living in the Commonwealth of Virginia (regardless of their formal state of residence).
- An individual using educational assistance under chapter 31, Veterans Readiness and Employment (VR&E) who lives in the Commonwealth of Virginia (regardless of their formal state of residence) effective for courses, semesters, or terms beginning after March 1, 2019.
- Anyone described above remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same institution. Therefore, the described person must be enrolled in the institution and use educational benefits under Chapters 30, 31, 33, or 35 of Title 38, United States Code.

Military Survivors and Dependents Education Program The Virginia Military Survivors and Dependents Education Program (VMSDEP) provides education benefits to spouses and children of military service members killed, missing in

action, taken prisoner, or who became at least 90% disabled as a result of military service in an armed conflict. More information, eligibility requirements, and instructions for applying are available at https://www.dvs.virginia.gov/education-employment/virginia-military-survivors-and-dependents-education-program/.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at https://www.benefits.va.gov/gibill.

Contact Information for MECC Veterans Affairs Officer:
Ms. Lena Grace
Robb Hall, Room 106
276/523-9028
lgrace@mecc.edu

Step 3: Determine Course Placement and Meet with an Advisor Course Placement

In determining new students' readiness for college-level English and math courses, MECC will use the following means and measures:

- Any student who has earned an associate degree or higher or who has earned a 'C' or better in college-level courses in math and/or English at a regionally accredited institution will be exempt from placement testing provided they meet the pre-requisites for the respective courses in their chosen program of study.
- Any student who has successfully completed developmental courses at a VCCS institution will be exempt from placement testing in those areas.
- Any student who has successfully completed developmental courses at a non-VCCS institution will have their coursework evaluated for placement.
- A student may submit a high school/home school transcript or an approved test score for placement evaluation. Placement will be based on the tables found in 6.4.0.2.2 and 6.4.0.2.3. Seniors who have not yet graduated may submit a transcript as of the completion of the first semester of the senior year to determine readiness for placement into college-level courses for the purpose of early admission.
- Any student who is not placed by the above criteria will need to take the Direct Placement Survey https://desurvey.vccs.edu/login, or take the Virginia Placement Test, or ESL-specific test, as appropriate. Students have the option to take the Virginia Placement Test in order to improve their placement standing after other measures are considered. Such placement test scores will not be used to place a student in a lower English or math course than indicated by other criteria, unless the student desires a lower placement.

*This policy does not apply to current dual enrollment students.

Math Placement
Math placement will be determined using one of the following measures:

Math Placement Measures	HSGPA or Score Range	Placement Results
HSGPA Less than 2.0	<2.0	MDE 10
HSGPA 2.0 - 2.99 without HS Algebra II	2.0 to 2.99	MTH 111 MTH 132 MTH 133 MTH 154 + MDE 54 MTH 155 + MDE 55 MDE 60

HSGPA 2.0 - 2.99 with HS Algebra II	2.0 to 2.99	MTH 111 MTH 132 MTH 133 MTH 154 + MDE 54 MTH 155 + MDE 55 MTH 161 + MDE 61
HSGPA 3.0 + with HS Algebra II	2.0 to 2.99	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161
SAT - Math	500 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161
SAT - Math	470 - 490 Range	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161+MDE 61
ACT - Subject Area Test Math	18 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161
ACT - Subject Area Test Math	17	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161+MDE 61
GED - Math (2014 or later)	165 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161+MDE 61
GED - Math (2014 or later)	155 - 164 Range	MTH 111 MTH 132 MTH 133 MTH 154+MDE 54

		MTH 155+ MDE 55 MDE 60

= Students may complete the VPT - Calculus for placement into Pre-Calculus II, Calculus, and 200-level Statistics. Placement directly into Pre-Calculus II, Calculus, and 200-level Statistics based on HSGPA and highest level courses taken will be at the discretion of each college.

Measures for English Placement
English placement will be determined using one of the following measures:

English Placement Measures	**HSGPA or Score Range**	**Placement**
HSGPA Less than 2.0	<2.0	EDE 10
HSGPA 2.0 - 2.99	2.0 - 2.9 range	EDE 11/ENG 111
HSGPA 3.0 +	3.0 or higher	ENG 111
SAT - ERW (Evidenced Based Reading and Writing)	480 or above	ENG 111
SAT - ERW (Evidenced Based Reading and Writing)	400-470 range	EDE 11/ENG 111
ACT - Subject Area Tests English and Reading	18 or above	ENG 111
ACT - Subject Area Tests English and Reading	15-17 range	EDE 11/ENG 111
ACT - Subject Area Tests English and Reading -	14 and below	EDE 10
GED - English (2014 or later)	165 or above	ENG 111

High school GPA (HSGPA) is valid for five (5) years after the date of high school graduation. SAT, ACT and GED Test scores are valid for five (5) years after the date of the test. Virginia Placement Tests-Math and English scores are valid for five (5) years after the date of the test.

Measurement	**Beginning Date for Summer 2024**	**Beginning Date for Spring 2025**
High School GPA (HSGPA)	5/1/2019 - (Class of 2019)	5/1/2019 - (Class of 2019)
SAT	After 5/1/2019	After 12/1/2015
ACT	After 5/1/2019	After 12/1/2015
GED	After 5/1/2019	After 12/1/2015
VPT	After 5/1/2019	After 12/1/2015
Developmental Courses*	Completed Summer 2019 or later	Completed Fall 2019 or later

Students who completed high school six or more years ago (2018 or earlier) will meet with an advisor to make an Informed Self-Placement decision regarding course enrollment.

Transcripts

Students applying for admission should submit their high school or college transcript information to Enrollment Services Office, located in Fox Central/Holton Hall, prior to registering for courses. Any Service Member should have their Military Transcript sent to MECC prior to registering for courses.

Meet with an Advisor

When a student declares a program of study at Mountain Empire Community College, he or she will be assigned a faculty advisor to assist in choosing the appropriate classes during the student's pursuit of a degree or certificate. The faculty advisor will become the student's main point of contact for academic issues that impact educational progress. Because faculty schedules vary throughout the year, scheduling an appointment to meet with faculty advisors is recommended. However, if a program of study has not been chosen, or if the faculty advisor is not available, academic advising is also available through the Office of Student Services, or other faculty within the student's area of interest. To schedule an appointment with your advisor, call 276.523.7472.

Step 4: Register for Classes

- Normal Academic Load
- Adding a Course
- Withdrawing from Class
- Administrative Withdrawal
- Repeating a Course
- Auditing a Course

Students can register for classes online through MyMECC, located at www.mecc.edu. This system will ask you to enter your username and password which you received when you completed the online application to the College. Once you have logged in to MyMECC, follow the VCCS SIS: Student Information System/Student Center/Enroll link to register.

Normal Academic Load

The normal academic load for a student is 15-17 credits. The minimum full-time load is 12 credits, and the normal maximum full-time load is 18 credits excluding College Success Skills (SDV 101). Students who wish to carry an academic load of more than 18 credits must have a minimum G.P.A. of 3.0 and the approval of the Vice President of Academic Affairs and Workforce Solutions. Students will not be allowed to take more than 20 credits. Students placed on academic warning or academic probation may be required to take less than the normal course load.

Adding a Course

Normally, a student may not enter a new class after the first two weeks of classes in a standard session. Any request for registration in a new class after the published add period must be approved by Enrollment Services/Registrar. The add period for classes in non-standard sessions ends on that day which represents completion of fifteen percent of the class days.

Withdrawing from Class

To withdraw from a class, a student must complete a Class Schedule form, which can be obtained from Enrollment Services/ Registrar. If a student withdraws from a class before the last day to withdraw and receives a refund (this date is published in the Class Schedule), the student is removed from the class roll and no grade is awarded. After this date, but prior to the last day to withdraw without grade penalty (also published in the Class Schedule), a student who withdraws or is withdrawn from a course will be assigned a grade of "W."

A student who withdraws after the official withdrawal date will receive a grade of "F" unless he/she withdraws with extenuating circumstances which prevented the student from completing the class and from withdrawing on or before the official withdrawal date. The Request for Withdrawal Due to Extenuating Circumstances form, available from Enrollment Services/Registrar, must be completed by the student or faculty member. The form must be submitted to Enrollment Services/ Registrar prior to the last class meeting for final consideration and approval. The student may appeal a denial within ten business days of notification by written appeal to the Student Affairs Committee.

The student who pre-registers in a class for which tuition is paid, but fails to attend the class, is responsible for completing the withdrawal process to prevent being assigned a grade of "F."

The responsibility for providing documentation of mitigating circumstances rests with the student. Students who wish to withdraw from a class should initiate the withdrawal procedure with a counselor. A short interview may also be required. A student normally will not be allowed to withdraw from a class after the last official class meeting prior to exams. Such a withdrawal will be effective on the date the notice is received. No requests to withdraw from class will be accepted by telephone.

Administrative Withdrawal

Students may be withdrawn from classes by the instructor for failure to attend classes during the first 60% of the instructional period.

Repeating a Course

A student will normally be limited to two enrollments in a credit course that is not designated as repeatable for credit or is not a General Usage course. Should the student request to enroll in the same course beyond the second time, the need must be documented and approved by Enrollment Services/Registrar or the Division Dean. The Division Dean's approval is required for enrollment beyond the third time. This limitation does not apply to courses designated as repeatable for credit or General Usage courses. (General Usage courses: 90-190-290; 93-193-293; 95-195-295; 96-196-296; 97-197-297; 98-198-298; 99-199-299.)

Auditing a Course

Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit through the usual registration process and paying the regular tuition. Permission of Enrollment Services/Registrar is required to audit a course.

Audited courses carry no credit and do not count as part of the students' course load. Students desiring to change status in a course from audit to credit or from credit to audit must do so within the add/drop period for the course.

Students who desire to earn credit for a previously audited course must re-enroll in the course for credit and pay normal tuition to earn a grade other than "X." Advanced standing credit should not be awarded for a previously audited course.

Step 5: Pay for College

- Tuition
- Appeals Process for Applicants Denied In-State Tuition
- Tuition Payment Plan
- Tuition and Fees Refunds
- Refunds, Credits, Reinstatement as a Result of Military Service
- Suspension of Students for Non-Payment
- Books and Materials

Tuition

The tuition for all credit courses is set by the Virginia State Board of Community Colleges and is subject to change. Tuition and fees are listed at the following website: www.mecc.edu/paying-for-college.

A Virginia domicile is eligible for in-state tuition rates and is one who has been domiciled in, and is and has been a bona fide legal resident of Virginia for a period of at least one year prior to the commencement of the term or semester of entitlement.

Students classified as out-of-state who can provide clear and convincing evidence that they were eligible for Virginia domicile on the first day of class for a term may have their tuition status changed for the current term. In the event that a student's circumstances change after a semester has begun, the student's tuition status may be eligible for reclassification. This reclassification shall be effective for the next academic semester or term following the date of the application for reclassification.

Tuition and fees are due and payable on the scheduled enrollment days. Personal checks are acceptable in the amount of the tuition due. Tuition may be paid via MasterCard or Visa or on line through the student center in PeopleSoft SIS using QuikPAY. The QuikPAY service allows payments to be made by credit/debit card, checking account or savings account.

Chapter 31, Chapter 35, and Chapter 33 Recipients

A DND (Do Not Drop) Service Indicator will be placed on the record of any individual entitled to educational assistance under Chapter 31, (VR&E), Chapter 35, or Chapter 33, Post 9/11 GI Bill benefits under the following conditions prior to the first day of the semester: 1) The individual has provided a copy of his/her Certificate of Eligibility for entitlement to educational assistance under chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website -eBenefits, or a VAT 28-1905 form for chapter 31 authorization purposes). 2) The individual has submitted a completed and-signed Certificate of Understanding for the current academic year; and 3) the individual has submitted a completed and signed MECC Certification Request for VA Educational Benefits for the current semester.

The DND Service Indicator will remain on the individual's record until the date on which payment from the VA is made to the institution; or 90 days after the date the institution certified tuition and fees following the receipt of the documents listed above (whichever date is earlier).

Chapter 33 recipients with an eligibility of less than 100% must pay their portion of tuition/fees by the end of the expiration period.

Payment of tuition and fees also enables the student to use the library, learning laboratory, bookstore, parking lot, student lounge, and other facilities of the College. There are no special laboratory or library fees, but students are

expected to pay charges for any College property which they damage or lose. This policy also applies to Chapter 31, Chapter 35, and Chapter 33 individuals with a DND Service Indicator charges for any College property which they damage or lose.

Appeals Process for Applicants Denied In-State Tuition

The initial assessment of eligibility for in-state tuition is made by Enrollment Services/ Admission. Students who wish to appeal their domicile/in-state classification should contact the Dean of Enrollment Services.

Tuition Payment Plan

To assist in meeting educational expenses, MECC offers the Nelnet Payment Plan to help budget tuition costs. There are no interest or finance charges assessed and no credit check. Students may budget tuition and fees in the following manner:

- Automatic Bank Payment: This is a bank draft from a checking account or savings account, on the 16th day of each month.
- Credit Card Option: If you elect to use this option, the monthly payment, along with a convenience fee, are automatically charged to the designated credit card. The convenience fee is in addition to the non-refundable Nelnet enrollment fee. Payments will be charged on the 16th day of each month until the balance is paid in full.

Tuition Payment Plan Enrollment Fee

There is a small enrollment fee for using the Nelnet payment plan. The amount of the fee depends on the time in which you enroll in the plan. The enrollment fee varies from $35 to $45. This is the total cost; no interest is applied. The down payment, along with the enrollment fee is deducted from the designated bank account or charged to the designated credit card within one to two business days after registering for the payment plan. Additional scheduled payments are always on the 16th of the month. If bank drafts fail for insufficient funds on any of the payments, you will be assessed a $25 service fee by Nelnet and additional service fees assessed by your bank. Nelnet will attempt another draft on the 5th of the following month. Students enrolled in the payment plan must be sure the funds are available for the bank drafts against your account.

Registering: Register for the Nelnet Payment Plan online at www.mecc.edu/paying-for-college. Students need their Student ID, social security number, bank name and telephone number, check/savings account and routing numbers or credit card information.

Terms and Conditions: A number of terms and conditions apply to the agreement with Nelnet. Students should thoroughly review all terms and conditions before submitting the agreement. Failure to comply with these terms and conditions may result in cancellation of classes at MECC. For example: If the full amount of your down payment does not clear the bank, the contract with Nelnet will be immediately terminated and the payment amount satisfied by the contract with MECC will be voided on the student account, leaving an unpaid tuition balance. It is very important to let the Business Office know when you register for the Nelnet Payment Plan. The Business Office is not informed of payment plan registration until the next business day. If the last day to pay tuition is the same day as enrollment in the payment plan, students must request a DO NOT DROP be placed on their account to insure classes will not be dropped for non-payment. The last day to pay tuition may not necessarily be the last day you may register for the payment plan. It is the student's responsibility to see that tuition is paid on time or to inform the Business Office that you have completed an application with Nelnet. The number of months you have to finish paying for your tuition depends on how early you apply for the payment plan. Check with the Business Office for details on each semester deadlines.

Students must contact the Business Office if they drop a class (a class is canceled) or add a class, to have the payment plan adjusted accordingly. In addition, the student may log in to their Nelnet Payment Plan account and request an adjustment to their balance resulting from changes in their class schedule or contact a Nelnet representative for assistance. No adjustments are made to any plan without authorization from the student. Questions concerning the Nelnet Payment Plan should be addressed to the Business Office.

Tuition and Fees Refunds

Students shall be eligible for a refund for those credit hours dropped during the same add/drop period within which the credit hours were added. The refund will be at the applicable per credit hour rate, but no refund will exceed the student's tuition and fees charges. A student will receive a full refund for any course dropped during the first two weeks of classes in a standard session (or 15% of the calendar days in a nonstandard session). Refer also to the Title IV Return of Funds Policy in the MECC Student Handbook.

Should MECC not be able to deliver fully the instruction for which a student has paid, the College will provide an alternative for receiving this instruction or a reasonable refund.

A student who believes that individual circumstances warrant an exception to this refund policy may appeal in writing to the Vice President of Academic Affairs and Workforce Solutions.

Military (US Department of Defense) Tuition Assistance Refunds

Active military students may receive military Tuition Assistance {TA) funds for their course enrollment(s) with MECC. When an active military student withdraws from a course(s), the student may not be eligible to receive the full amount of TA funds. MECC will return unearned TA funds on a proportional basis through the 60% portion of the period for which the TA funds were provided. Thus, TA funds are earned proportionally through the last day of course attendance, with unearned funds returned based upon when a student stops attending.

Return of Unearned TA Funds: Any student may drop a course(s) without financial encumbrance within the allowable refund period (last day to drop and receive a refund). During this time, 100% of TA funds will be returned to the government.

After this time and when a military student receiving TA funds from the Department of Defense withdraws or ceases attending, MECC will return unearned TA funds to the government on a proportional basis through the 60% portion of the period for which the TA funds were provided.

MECC will return any unearned TA funds directly to the military service, not to the service member. The student will be notified within 30 days of the withdrawal as to the portion of the funds that need to be returned. However, when the military student stops attending for military obligation, MECC will work toward solutions that avoid student debt for the returned portion of the TA funds.

Calculation to Return Unearned TA Funds: For any student using TA funds to pay for education costs at MECC who withdraws from MECC prior to completing 60% of the course, MECC will return any unearned TA funds to the government according to how much of the course a student completes. The percentage of TA funds returneq represents the amount of tuition paid to MECC that must be returned to the government. MECC calculates the return of unearned TA funds using the following formula:

$$\text{Percentage TA Funds Returned} = 100\% - \frac{\text{\# Days Attended}}{\text{\# Total Days Course Meets}} \text{ X } 100$$

These funds must be returned to the government within 45 days of determination of the withdrawal. Date of withdrawal is the date that the student officially withdrew according to the withdrawal documentation in the MECC Records office

or the last day of attendance reported by the instructor when the student received final grades of all Fs, or a combination of Fs and Ws, for the term.

The MECC Business Office will return unused TA funds to the government on behalf of the student. However, the MECC Business Office will then add this balance to the student's MECC account resulting in the student then owing MECC the amount of the returned TA funds.

In calculation of Total Days Course Meets, MECC schedules the minimum number of days a course meets according to 5 days per academic calendar week. MECC schedules courses on a semester basis. However, within the semester, classes may meet for non-standard periods. Although the typical fall or spring semester meets for a minimum of 80 days each and the summer semester meets for a minimum of 50 days, MECC does offer limited courses that meet for different lengths of time.

Return of TA chart

Refunds, Credits, Reinstatement as a Result of Military Service

Tuition and Required Fees

Pursuant to 23-9.6:2 of the Code of Virginia and corresponding SCHEV Guidelines, Mountain Empire Community College provides for the tuition relief, refund, and reinstatement of students whose service in the uniformed services has required their sudden withdrawal or prolonged absence from their enrollment. Service in the uniformed services is defined as service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days under call or order to active duty of more than 30 days.

The College provides for the following:

- Should a student be ordered to active duty (for reservists) or be mobilized (active military) as described in the Code of Virginia, Section 23-9.6:2, and the State Council's Virginia Tuition Relief, Refund, and Reinstatement Guidelines, and he/she requests to be withdrawn from the College after the last day to withdraw and receive a refund, the student may elect either to be deleted from the registration file and be awarded a full refund or to be administratively withdrawn with no refund and assigned a grade of "W."
- The College will provide, at the option of the student, for such refunds to be retained and to be applicable to tuition and fees charged in the semester or term in which the student returns to study.
- The College will process refunds for textbooks according to established refund policies of the College Bookstore.

Academic Credits and Grades

Students who are called to active duty or are mobilized, meaning serving in the uniformed services, as described in Virginia Tuition Relief, Refund, and Reinstatement Guidelines should have the opportunity to receive an incomplete grade ("I") until released from active duty (for reservists) or mobilization (for active military personnel). All course requirements shall be completed within one year from the date of release from active duty or mobilization.

Students may be given the option of taking their examinations prior to regularly scheduled times as an exception to VCCS policy 5.6.1 in accordance with the Virginia Tuition Relief, Refund, and Reinstatement Guidelines.

Reinstatement following Active Duty or Mobilization

Students who are called to active duty or are mobilized will be assured a reasonable opportunity to be reinstated in the same programs of study without having to reapply for admission. Reinstatement will be granted if students return to the College after a cumulative absence of not more than five years so long as the student provides notice of intent to return to the institution not later than three years after the completion of the period of service.

Suspension of Students for Non-Payment

A student's continued attendance at the College is dependent upon proper settlement of all debts owed the institution. Should the student fail to satisfy all due and payable amounts for tuition and fees, College loans, College fines, or other debts owed the College, the student may be suspended. If suspended, no student will be allowed to register in any succeeding semester until all current debts owed to the College have been satisfied.

Books and Materials

Students are expected to obtain their own books, supplies, and consumable materials needed in their studies. The estimated cost of these items will average $750 per semester for a full-time student. Students may also rent their textbooks for the semester at a lower cost. The purchase/rental cost varies according to the number of credit hours taken. Students are urged to check exact book titles and authors required in each course before purchasing books. The College Bookstore has very specific guidelines about returning books for a refund. Students are encouraged to familiarize themselves with these guidelines before making any purchases.

Important Information You Need to Know

- Admission Categories
- Academic Standing
- Admission to Programs/Courses
- Waiver of Course Requirements
- Changing Program of Study
- Quarter to Semester Conversion
- Grade Point Average
- Academic Renewal Policy
- Recruitment Policy
- Grading
- Developmental Studies
- Grade Report
- Transcripts
- Grade Changes
- Grade Appeals
- Fees & Fines
- Residence Requirements
- Student Email, Canvas and Student Information System Access
- General Student Information
- Get Help When You Need It

Admission Categories

Individuals may be admitted to the College as curricular or non-curricular students. Additional information may be required by the College for admission to a specific program or curriculum. If a student in good academic standing has not been enrolled within the last three (3) years, he or she will be required to complete a new application for admission.

Curricular Student

A student shall be classified as a curricular student if the following three conditions are satisfied: 1.) the student holds a high school diploma, a GED or its equivalent, or is otherwise determined qualified for admission; 2.) the required documents for general admission to a curricular program are received by the Enrollment Services Office; and 3.) the student has been admitted to one of the College's curricula including international students requiring issuance of an I-20. If you have been admitted to the College as a curricular student, you are required to meet with one of the College advisors to discuss educational interests, to determine curricular needs and to plan enrollment in a specific program or curriculum at the College. Additional information may be required by the College for admission to a specific program or curriculum.

Curricular students must submit a completed official application for admission with social security number requested. The online admission application is available at the College's web site www.mecc.edu/apply. Transcripts from all high schools, colleges and universities attended are requested unless the record is five or more years old, or the applicant has completed 20 semester credits at a regionally accredited college or university, or the high school transcript is determined to be of no value for college and/or curricular admission.

Prior coursework may be evaluated for currency, technology application, or approach to discipline. The respective Dean over the degree in question will be responsible for the evaluation.

Graduates who complete secondary school in a home school setting must provide a graduation date and may be required to provide documentation of coursework.

The VCCS Student Information System academic records will be sufficient for courses transferred from colleges within the Virginia Community College System.

Students will not be allowed to register for some math classes unless a high/home school transcript is on file indicating completion of certain algebra and/or geometry classes.

G.E.D. transcripts may be obtained at https://www.gedtestingservice.com/testers/gedrequest-a-transcript. Official transcripts of all work completed at regionally accredited colleges or universities are required unless waived by the Director. Faxed transcripts will be accepted subject to verification. Applicants to Nursing, Practical Nursing, Paramedic, or Respiratory Therapy programs are required to submit high/ home school, GED, and college transcripts prior to admission consideration.

Transcripts received from other institutions are retained by the College for three years after the student's last date of enrollment. Before enrolling for courses to meet the requirements of a degree or certificate program, all curricular students must complete the Virginia Placement Test or Direct Enrollment Survey. The placement test consists of English (writing and reading) and mathematics. Some programs do not require all three tests. Consult with your advisor for further information or email advising@mecc.edu. Students who have submitted SAT or ACT scores may be exempt from the English, and/or math placement tests.

Non-Curricular Student

Students who are not formally admitted to a credit-bearing program of study are considered non-curricular students. (International students requiring issuance of an I-20 or students receiving Federal or State aid are not eligible for these categories):

- Upgrading employment skills for present job
- Developing skills for new job
- Career exploration
- Personal satisfaction and general knowledge
- Transient student (student who maintains primary enrollment with another postsecondary institution and elects to enroll in the VCCS)
- High school student dual enrollment or dual credit
- Auditing a course

Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit through the registration process and paying the normal tuition. Permission of Enrollment Services/Registrar is required to audit a course. Audited courses carry no credit and do not count as part of the student's course load. Students desiring to change status in a course from audit to credit or from credit to audit must do so within the add/drop period for the course. Students who desire to earn credit for a previously audited course must re-enroll in the course for credit and pay normal tuition to earn a grade other than "X". Advanced standing credit should not be awarded for a previously audited course.

Academic Standing

Students are considered to be "in good academic standing" if they maintain a semester minimum GPA of 2.00, are eligible to reenroll at the College, and are not on academic suspension or dismissal status.

President's List

Students who have at least 12 credits and a GPA of 3.8 or higher during the semester with no I, R, U, or F grades.

Honors List

Students who have at least 12 credits and a GPA of 3.5 to 3.79 during the semester with no I, R, U, or F grades.

Merit List

Students who have at least 12 credits and a GPA of 3.2 to 3.49 during the semester with no I, U, or F grades, and part-time students who have between 6 and 11 credits and a GPA of 3.2 or higher during the semester with no I, U, or F grades.

Satisfactory Progress

Students pursuing any credit programs are cautioned that, although an average GPA between 1.50 and 1.99 may not result in formal academic probation, a minimum of 2.00 in their curriculum is a prerequisite to the receipt of an associate degree, diploma, or certificate.

Academic Warning

Students who fail to attain a minimum GPA of 2.00 for any semester shall be placed on academic warning. Students on academic warning are encouraged to consult with their advisor/ counselor and take advantage of academic support services provided by the College.

Academic Probation

Students who fail to maintain a cumulative GPA of 1.50 shall be on academic probation until such time as their cumulative average is 1.75 or better. The statement "Academic Probation" shall be placed on their permanent records. Students on probation are ineligible for appointive or elective office in student organizations unless special permission is granted by the Vice President of Academic Affairs and Worforce Solutions. Students may be required to carry less than a normal course load the following semester and are required to consult with their advisor. Students shall be placed on probation only after they have attempted twelve (12) semester credit hours.

Academic Suspension

Students on academic probation who fail to attain a semester GPA of 1.50 shall be placed on suspension only after they have attempted 24 semester credits. Academic suspension shall be for one semester. The statement "Academic Suspension" will be placed on the student's permanent record. Students who have been placed on academic suspension and wish to appeal may submit a Request for Reinstatement of Enrollment form to the Dean of Enrollment Services for reconsideration of his/her case. The Request for Reinstatement of Enrollment form is available at the Enrollment Services office. The appeal must be submitted at least five days prior to the first day of classes for that semester. Suspended students may be reinstated at the conclusion of the suspension period. Suspended students wishing to be reinstated after the suspension period must complete the Request for Reinstatement of Enrollment form available from Enrollment Services. Students who have been reinstated from academic suspension must achieve a 2.00 GPA for the semester of their reinstatement and must earn at least a 1.75 GPA in each subsequent semester of attendance. The statement "Subject to Dismissal" shall be placed on the student's permanent records. Students who have been reinstated from academic suspension will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their advisor.

Academic Dismissal

Students who do not attain at least a 2.00 GPA for the semester of reinstatement following academic suspension shall be academically dismissed. Students who achieve a 2.00 GPA for the semester of their reinstatement following academic suspension must earn at least a 1.75 GPA in each subsequent semester of enrollment. Failure to attain a 1.75 GPA in each subsequent semester until the cumulative GPA reaches 1.75 shall result in academic dismissal. "Academic

Dismissal" shall be placed on the students' permanent records. Academic dismissal normally is permanent. In exceptional circumstances students may appeal the academic dismissal. A student wishing to appeal a dismissal from the college must make a written request at least five days prior to the first day of classes for that semester to the Dean of Enrollment Services. The statement "Academic Dismissal" shall be placed on the student's permanent record. Students who have been reinstated after academic dismissal will remain subject to dismissal until their cumulative GPA is raised to a minimum of 1.75. Reinstated students may be required to carry less than a normal course load the following semester and are required to consult with their advisor.

Admission to Programs/Courses

In addition to the general admission requirements, specific requirements are normally prescribed for each program of the College. The specific requirements are listed in the Programs of Study section of this catalog. A person applying to enter one of the associate degree (Associate of Arts and Sciences or Associate of Applied Science) programs must be a high school graduate or the equivalent, complete an approved developmental studies program or otherwise be considered eligible by the College. Admission to a specific course is possible when students meet the prerequisite requirements for the course as stated in the College's catalog.

Developmental Studies

The purpose of the Developmental Studies program is to assist students in improving their basic academic skills and to help them enhance their self-confidence in preparation for future academic college courses. The developmental courses are identified with a single-digit prefix (1, 2, 3, 4, 5, etc.). Since the content includes pre-college foundational skills, the courses do not yield college credit. Students are placed into developmental studies courses after an analysis of their scores on placement tests in English, reading, and mathematics, high school transcripts, and other information available concerning their achievement level. Students who are placed in developmental English or mathematics courses may enroll in curriculum courses appropriate to their program of study at the College.

Each developmental studies course has been developed around specific discipline objectives which have been identified as required for entry into regular curriculum courses. Tests and other diagnostic techniques are administered to determine when the student has met the established course objectives. The length of time a student takes to complete the developmental courses depends primarily upon the student's entering ability and the student's strength of motivation to succeed. Many students can master these skills during the first 15-week semester; others may need to take a year or more of developmental coursework. In all cases the primary goal of the developmental course is to offer students an opportunity to master the basic academic skills necessary for success in regular college courses.

Waiver of Course Requirements

Students having reason to believe that previous educational studies, training programs, or work experience may entitle them to an adjustment in the required courses in a particular curriculum should contact the Division Dean to determine procedures before registering for classes. Through subsequent interviews and tests, students may qualify for waiver of curriculum admission requirements, of course prerequisites, and of courses in the curriculum upon the recommendations of the appropriate Division Dean. Students may substitute equivalent or more sophisticated courses in the same field in any approved curriculum with the approval of the instructional division and the Chief Academic Officer or designee provided they can, by previous educational accomplishment or college administered examination, demonstrate the capability for success in the courses requested. In addition, if students can demonstrate that previous educational study, training, work experience, or college administered examination results may entitle them to advancement in the courses required or a particular curriculum, upon request and with the approval of the instruction division and the Chief Academic Officer, they may receive advance placement and credit in the course or curriculum for which advancement was requested.

If requirements are waived, students must successfully complete other courses to compensate for the credit hours.

Credits waived are those normally required course credits for a particular program which are administratively exempted. Credits waived require election of additional credit courses to compensate for the credits waived.

The physical education requirements for the degree and certificate programs may be waived for veterans, and the College may grant up to 3 credits of physical education/health credits for basic military training to satisfy the physical/health credit requirement of the veterans' curricula. Veteran students may consult Enrollment Services/Veterans Affairs for assistance with this waiver.

Substitution of requirements for students with documented disabilities, covered by the Americans with Disabilities Act of 1990 (ADA) and 504 of the Rehabilitation Act of 1973, as amended. Otherwise qualified students with documented disabilities who are, by reason of their disability, unable to complete a requirement of the program pursued by the student, with or without reasonable accommodations, may request an approved course substitution. Substitutions will generally not be granted for any course that is deemed essential to the program of instruction being pursued by such student, or to any directly related licensing requirement. If requirements are waived, students must successfully complete other courses to compensate for the credit hours.

Credit for Prior Learning

Credit for prior learning is the administrative placement of a student that awards credit for subject matter competency based on previous academic study or acquired through nontraditional means. This may include, but is not limited to, college credit and advancement based upon the administration and evaluation of locally-developed examinations; individual college participation in nationally recognized standardization exams; experiential learning; and training provided by non-collegiate institutions, such as armed forces service schools.

1. **College credit** is a means of achieving Credit for Prior Learning through an administrative determination by the college that equivalent course coverage has been satisfactorily completed at a regionally accredited postsecondary institution. Credit through this means must be verified through receipt of an official transcript submitted to the Office of Enrollment Services.
2. **Credit by Local Examination** is a means of achieving Credit for Prior Learning through satisfactorily demonstrating subject-matter competency by means of an examination developed, and evaluated by College faculty. Examinations must be based on established course learning outcomes and must be comprehensive.
3. **Credit by Standardized Examinations** Credit by Standardized Examinations is a means of achieving Credit for Prior Learning through a nationally recognized or college-approved external agency. External examinations used for this purpose include but are not limited to the College Level Examination Program (CLEP), DANTES Subject Standardized Test (DSST), of the Defense Activity for Non-Traditional Educational Support (DANTES), Excelsior Credit by Exam (ECE), the College Entrance Examination Board (CEEB), Advanced Placement (AP) program, Cambridge Advanced (A/AS) examinations, the International Baccalaureate (IB) program, and the Defense Language Proficiency Test (DLPT). Upon receipt of official test scores, all Virginia Community colleges shall accept a score of three (3) and higher for Advanced Placement (AP) courses, a score of four (4) or higher for higher level International Baccalaureate (IB) courses, a score of five (5) or higher for standard level International Baccalaureate (IB) courses, a score of fifty (50) or higher on CLEP courses, and scores of C or better for Cambridge Advanced (A/AS) examinations when the equivalent course is offered by the college. The colleges assume no responsibility regarding the acceptance of Advanced Standing credit by other institutions to which the student may transfer.
4. **Credit by Experiential Learning** is a means of achieving Credit for Prior Learning through an administrative determination by faculty of the college or by a college-approved learning assessment service that the occupational experience of an individual is at least equivalent to the course(s) to be exempted. Credit by be awarded based upon an individualized portfolio evaluation, which may be conducted by faculty at the individual colleges or by using the Council for Adult and Experiential Learning's (CAEL) guidelines, and/or CAEL's LearningCounts.org prior learning assessment service.

5. **Credit may be granted for prior learning for non-collegiate education, training, and/or occupational experiences** as recommended by college faculty, the American Council on Education (ACE), the National College Credit Recommendation Service, or another college-approved organization.
    1. In addition to the above, each college shall develop procedures for the award of academic credit to any enrolled student who has successfully completed a military training course or program as part of the student's military service that is applicable to the certificate or degrees requirements and is:
        1. Recommended for academic credit by the national higher education association that programs academic credit recommendations for military training courses or programs:
        2. Noted on the student's military transcript issued by any of the armed forces of the United States; or
        3. Otherwise documented in writing by any of the armed forces of the United States.

The procedures for awarding credit through Advanced Standing are as follows:

1. The determination of such credit must be made by qualified faculty members at the institution or according to procedures and standards approved by qualified faculty ensuring that assessment procedures are appropriate for the credit awarded.
2. If documentation and interviews are used in lieu of examinations, the institution must demonstrate that these methods provide assurances of academic comparability to credit earned by traditional means.
3. At least 25 percent of the credit hours required for an undergraduate degree are earned through credit instruction offered by the institution awarding the degree.

Students having reason to believe that previous educational studies, training programs, or work experience may entitle them to an adjustment in the required courses in a particular curriculum, should contact their academic advisor or the appropriate faculty member to determine procedures before registering for classes and to complete the appropriate documentation. A student who is currently enrolled in a class and wishes to apply for advanced standing must complete the process and drop the class within the add/drop period.

General Examinations	CLEP Score	CR.	Course Equivalent
Business			
Information Systems & Computer Applications	50	3	ITE 119
Introductory Business Law	50	3	BUS 241
Principles of Management	50	3	BUS 200
Principles of Marketing	50	3	MKT 100
Composition and Literature			
American Literature	50	3	ENG 241
Analyzing and Interpreting Literature	50	3	ENG 125
College Composition	50	6	ENG 111 & ENG 112
English Literature	50	3	ENG 243
World Languages			
French Language (Level I)	50	6	FRE 101 & FRE 102

French Language (Level 2)	59	9	FRE 101, FRE 102 & 201
German Language (Level 1)	50	6	GER 101 & GER 102
German Language (Level 2)	60	9	GER 101, GER 102, & 201
Spanish Language (Level 1)	50	6	SPA 101 & SPA 102
Spanish Language (Level 2)	63	9	SPA 101, SPA 102, & SPA 201
Level 1 - Equivalent to the first two semesters (or six semester hours) of college level foreign language coursework. Level 2 - Equivalent to the first three semesters (or nine semester hours) of college level foreign language coursework.			
History and Social Sciences			
American Government	50	3	PLS 135
History of the United States I: Early Colonization to 1877	50	3	HIS 121
History of the United States II: 1865 to Present	50	3	HIS 122
Human Growth & Development	50	3	PSY 230
Introductory Psychology	50	3	PSY 200
Introductory Sociology	50	3	SOC 200
Principles of Macroeconomics	50	3	ECO 201
Principles of Microeconomics	50	3	ECO 202
Western Civilization I: Ancient Near East to 1648	50	3	HIS 101
Western Civilization II: 1648 to Present	50	3	HIS 102

Science and Mathematics			
Biology	50	6	*BIO 101 & BIO 102
Calculus	50	4	MTH 263
Chemistry	50	6	*CHM 111 & CHM 112
College Algebra	50	3	MTH 161
College Mathematics	50	3	MTH 154
Pre-Calculus	50	3	MTH 162
The scores and credit hours that appear in this table are the credit-granting scores and semester hours recommended by the American Council on Education (ACE). The scores listed above are equivalent to the grade of a C in the			

corresponding course. Note: Students planning a transfer to another college or university are responsible for determining if that institution will accept CLEP credit.
*No credit is awarded for laboratory component.
Effective June, 2018

Changing Program of Study

Students considering a change in their program of study should schedule an appointment with their advisor. Students must complete an Information Change form and submit the form to the Office of Admissions.

Quarter to Semester Conversion

The following conversion guidelines will be applied when transferring courses completed under a quarter system to determine if students meet curricular requirements.

- A single quarter course requirement is equivalent to a single semester requirement but receiving 2/3 as much credit. (For example, ECON 160 for 3 quarter credits is equivalent to ECO 120 for 2 semester credits.)
- If only one course in a three-sequence quarter course has been taken, both semester courses must be taken.
- If the first two courses in a three-sequence quarter course have been taken, the last half of the semester course sequence must be taken.
- If the first and the third quarter courses have been taken in a three-sequence quarter course, the last half of the semester course sequence must be taken.
- If the second and the third quarter courses have been taken in a three-sequence quarter course, the first half of the semester course sequence must be taken.

Grade Point Average

The grade point average (GPA) is determined by dividing the total number of grade points earned in courses by the total number of credits attempted.

Semester Grade Point Average

Semester GPA is determined by dividing the total number of grade points earned in courses attempted for the semester by the total number of credits attempted.

Cumulative Grade Point Average

Cumulative GPA, which includes all courses attempted, is computed each semester and is maintained on a continuing basis as a record of the student's academic standing. When students repeat a course, only the highest grade earned is counted In the computation of the cumulative GPA and for satisfying curricular requirements unless the course Is designated repeatable for credit In the Master Course File or is a General Usage course. In instances of courses designated as repeatable for credit or General Usage courses, all grades/credits are counted In the computation of the cumulative grade point average. Gradse of "S", "P", "U", "W", "X", and "I" shall not count as the first or subsequent attempts when calculating cumulative GPA. Courses that do not generate grade points are not included in credits attempted.

Curriculum Grade Point Average

A curriculum GPA, which includes only those courses applicable to the student's curriculum, is computed in order to ensure that the student satisfies the graduation requirement for that curriculum. When students repeat a course, only the last grade earned is counted in the computation of the curriculum GPA. Both the initial attempt and the repeat must be completed at Mountain Empire Community College. General usage courses (in the 90, 95, 96, 97, 98, and 99 series such as 90, 190, 290, etc.) shall not be counted as repeated courses. The repeated courses must be identical in course department and numbers to the first attempt.

Academic Renewal Policy

Students who return to the College after a separation of five (5) years, or more, may petition for academic renewal. The request must be in writing and submitted to Enrollment Services/Admission.

If a student is determined to be eligible for academic renewal, D and F grades earned prior to re-enrollment will be deleted from the cumulative and curriculum grade point average (GPA), subject to the following conditions:

- Prior to petitioning for academic renewal the student must demonstrate a renewed academic interest and effort by earning at least a 2.5 G.P.A. in the first twelve (12) semester hours completed after re-enrollment.
- All grades received at the College will be a part of the student's official transcript.
- Students will receive degree credit only for courses in which grades of C or better were earned prior to academic renewal, providing that such courses meet current curriculum requirements.
- Total hours for graduation will be based on all course work taken at the College after readmission, as well as former course work for which a grade of C or better was earned, and credits transferred from other colleges or universities.
- The academic renewal policy may be used only once and cannot be revoked once approved.

Recruitment Policy

The purpose of this policy is to define prohibited student recruitment practices.

In accordance with 38 US Code 3696, Mountain Empire Community College does not provide commissions, bonuses or any other form of incentive payment based directly or indirectly on success in securing enrollments or financial aid (including tuition assistance funds) to any persons or entities engaged in student recruitment, admissions activities or making decisions regarding the award of student financial assistance.

Mountain Empire Community College also refrains from high-pressure recruitment tactics, such as making multiple unsolicited contacts (3 or more), including contacts by phone, email, or in-person, during any 1-month period. Contact from Mountain Empire Community College will be made in response to a student-initiated inquiry, application or other form of request. Mountain Empire Community College also refrains from same-day recruitment and registration for the purpose of securing service member enrollments. Mountain Empire Community College's open-access mission may allow prospective applicants with a desire to do so to apply and register quickly when the applicant's desired term is open for enrollment, but Mountain Empire Community College's rolling admission puts the applicant in control of the timeframe in which they choose to register for courses.

Grading

The grades of "A, B, C, D, P and S" are passing grades. Grades of "F and U" are failing grades. "R and I" are interim grades. Grades of "W and X" are final grades carrying no credit.

The quality of performance in any academic course is reported by a letter grade, the assignment of which is the responsibility of the instructor. These grades denote the character of study and are assigned quality points as follows:

A - Excellent, 4 grade points per credit
B - Good, 3 grade points per credit
C - Average, 2 grade points per credit
D - Poor, 1 grade point per credit
F - Failure, 0 grade points per credit
I - Incomplete, No grade point credit

I - Incomplete, No Grade Point Credit

The "I" grade is to be used only for verifiable unavoidable reasons that a student is unable to complete a course within the normal course time. To be eligible to receive an "I" grade, the student must (1) have satisfactorily completed more than 60% of the course requirements and (2) must request that faculty member to assign the "I" grade and indicate why it is warranted. The faculty member has the discretion to decide whether the "I" grade will be awarded. Since the "incomplete" extends enrollment in the course, requirements for satisfac-tory completion shall be established through consultation between the faculty member and the student. In assigning the "I" grade, the faculty member must complete documentation that (1) states the reason for assigning the grade; (2) specifies the work to be completed and indicates its percentage in relation to the total work of the course; (3) specifies the date by which the work must be completed; and (4) identifies the default (B, C, D, F, P, R, or U) based upon course work already completed. Completion dates may not be set beyond the subsequent semester (to include summer term) without written approval of the chief academic officer of the campus. The student will be provided a copy of the documentation. The College will establish procedures to ensure that all "I" grades that have not been changed by the faculty member through the normal grade change processes are subsequently changed to the default grade assigned by the faculty member. An "I" grade will be changed to a "W" only under documented mitigating circumstances which must be approved by the Vice President of Academic Affairs and Workforce Solutions.

P - Pass, No grade point credit

The "P" grade applies only to non-developmental studies courses. Pass grades are not included within GPA calculations. Permission of the division dean is required for utilizing the Pass/ Fail option. A maximum of seven (7) semester credit hours from courses for which the "P" grade has been awarded may be applied toward completion of a degree, certificate, or diploma.

R-Re-enroll, No grade point credit

The "R" grade may be used as a grade option, in developmental and ESL courses only, to indicate satisfactory progress toward meeting course objectives. In order to complete course objectives, students receiving an "R" grade must re-enroll in the course and pay the specified tuition.

S-Satisfactory, No grade point credit

The grade of "S" is used only for satisfactory completion of a developmental studies course (numbered 01-99).

U-Unsatisfactory, No grade point credit

The grade of "U" applies only to developmental studies courses.

W-Withdrawal, No grade point credit.

A grade of "W" is awarded to students who withdraw or are withdrawn from a course after the add/drop period but prior to the completion of 60% of the session. After that time, the student shall receive a grade of "F" except under mitigating circumstances which must be documented by the student and approved by the Registrar; a copy of the documentation must be placed in the student's academic file. Extenuating circumstance withdrawal requests must be received by the Registrar by the last class day for the course and prior to exams.

X-Audit

Students desiring to attend a course without taking the examination or receiving credit for the course may do so by registering to audit through the usual registration process and paying the normal tuition. Permission of the division dean or another appropriate academic administrator is required to audit a course. Audited courses carry no credit and do not count as a part of the student's course load. Students desiring to change status in a course from audit to credit or from credit to audit must do so within the add/drop period for the course.

Students who desire to earn credit for a previously audited course must re-enroll in the course for credit and pay normal tuition to earn a grade other than "X." Advanced standing credit should not be awarded for a previously audited course.

Developmental Studies

A grade of "S" (Satisfactory) may be assigned for satisfactory completion of a developmental studies course (courses numbered 1-9). "S" grades are not included in grade point average calculations. Students not making satisfactory progress in a developmental studies course shall be graded "U" (Unsatisfactory). The "I" and "W" grades may be utilized.

Grade Report

Final grades are posted to MyMECC at the end of exams each semester. Final grades become a part of the students' academic record. A student may view grades for any term by logging in to MyMECC.

Transcripts

To request an official transcript of academic record a student should go to www.mecc.edu/request-a-transcipt/ and either create a new account or sign in through Parchment.com. All electronic delivery requests will have a $7.50 processing fee through Parchment.com. To send your transcript via USPS, an additional $2.50 fee will apply. Transcript mail requests can be expedited through FedEx for an additional fee, depending on mailing cost.

Official transcripts are generally processed within 3 business days of receipt. During peak times such as beginning and end of term, processing time will likely be extended. Students can track the status of a transcript request through their Parchment account. Transcript services are withheld for any student who owes Mountain Empire Community College

money or property. Sufficient time must be allowed for the posting of grades and computing of averages at the end of each semester.

The College observes Public Law 93-380 (the Family Education Rights and Privacy Act of 1974) in providing for the privacy of official student records and the rights of students to review these records. Students may review their official records by making a request to the Office of Enrollment Services. The College will not release any personally identifiable information other than directory information about any student without the student's written permission, except to certain school and governmental officials as provided by the law. Requests by individuals and agencies for release of student information must be presented in writing. The student's permission for the College to release any information must also be in writing. Students may grant permission by completing the Permission to Release Education Record Information form, located in the Office of Enrollment Services, Fox Central/Holton Hall.

Grade Changes

Occasionally an error in grade recording may occur. Students should review grades carefully and report any errors to Enrollment Services/Registrar immediately. Challenges to grade records must be made within one year of the alleged error.

Grade Appeals

A student having factual evidence that his/her grade, as reported, is in error and who wishes to appeal said grade, should refer to Grade Appeal Policy listed in the MECC Student Handbook.

Fees & Fines

Fees are assessed to provide services to students which are not provided with tuition revenues. These fees include a General Auxiliary Fee, a Technology Fee, a Student Activity Fee, and a Capital Fee for out-of-state and contract students.

Library Debts

Students and community patrons are encouraged to return their loaned library materials promptly. All coursebooks and manuals, and musical instruments, are expected to be returned by students on the last day of exams for the semester that they were checked out for. In the event that library materials are not returned by their due date, students and community residents will receive three overdue notices. The first two notices will be sent to students' and community members' email accounts. When the third and final notice is mailed, the non-returned library materials will be considered lost, and students will be blocked, which means they will not be able to receive a financial aid refund, obtain an official college transcript, or charge items in the bookstore, until the library materials have been returned, or their debt for non-returned/lost/damaged materials is paid. A $5 processing fee will be added to the replacement cost of each individual item that the student or community patron has not returned to Wampler Library, or that they have damaged. Students and community residents who have unpaid library debts will not be allowed to check out additional items from the library until their account has been cleared of all charges - unless special permission has been granted by the staff for them to do so.

As required by the Commonwealth of Virginia, unpaid debts for non-returned/lost/damaged library materials will be submitted to the Virginia Department of Taxation under the Set- Off Debt Collection Program, with the debts deducted from the individual's state income tax refund or lottery winnings. Also, the state requires that unpaid debts be referred to a private collection agency. The debt collection agency adds a collection fee equal to 33% to the debt. In addition,

the debt collection agency reports collection activities to credit reporting agencies which will impact the debtor's consumer credit report.

To avoid receiving overdue notices, and being charged for outstanding library materials, students and community patrons can renew their books or other materials by phone by calling 276.523.7468, or they may stop by Wampler Library anytime during their regular hours of operation.

Parking Fines

Parking in unauthorized spaces may result in the following:

- $3.00 for each ticket received for the following violations:
    - Improperly parked
    - Parked in no-parking zone
    - No MECC parking permit
    - Parked in Faculty lot
    - Parked on road
    - Parked in Small Business Only
    - Parked in Employee of the Year space
    - Parked in State Vehicle Only space
    - $10.00 for each ticket received for parking in visitor's space
    - $25.00 for each ticket received for parking in handicapped space

Vehicles parked in a fire zone will be towed away at owner's expense.

Residence Requirements

The Virginia Community College System is guided by the Code of Virginia and the regulations of the State Council for Higher Education in determining domicile. For tuition assessment purposes, in-state rates will be charged to a student who has been domiciled in, and is and has been an actual bona fide legal resident of Virginia for a period of at least one year immediately prior to the commencement of the term of enrollment. Domicile decisions may not be changed after the term begins.

All applicants for in-state tuition rates will be required to submit a residence affidavit to determine state residency eligibility for tuition purposes. The burden of presenting adequate evidence of residency rests with the applicant. Residents of Tennessee that live within 30 miles of Mountain Empire Community College may be eligible for in-state contract tuition rates.

When enrollment must be limited for any program or course, first priority will be given to all qualified applicants who are domiciled residents of Lee, Wise, Scott, and Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the College. A domiciled resident is one who has been a permanent resident in the locality or state for the twelve months before the program application deadline. In addition, residents of localities with which the college has clinical-site affiliation may receive equal consideration for admission.

Mountain Empire Community College has established the following schedule for considering applications to limited enrollment programs: Before April 1, applications will be considered for only those domiciliary residents of the political subdivisions supporting the College; after April 1, all Virginia domiciliary residents will be considered for admission, and after May 1, out-of-state and international students will be considered for admission. Otherwise, applications are considered in the order in which they are received. Nursing/Re-spiratory Therapy/Practical Nursing applicants must be local domiciliary residents as of the program application deadline to receive priority consideration.

Domiciliary residence normally requires continuous physical presence for a period of at least 12 months with intent to remain permanently.

Student Email, Canvas and Student Information System Access

MyMECC

To access your student email, Canvas, and the Student Information System, visit MyMECC. MyMECC is located at the top right corner of the MECC homepage at www.mecc.edu.

Student Email

To access your MECC Email, log in to MyMECC with your username and password, and select the "Gmail" link.

Canvas

Canvas is a web based learning management system (LMS) designed to support online courses and provide a space to supplement a face-to-face course. Canvas provides many types of tools and features for enriching the learning experience.

SIS (Student Information System)

The Student Information System allows students to complete tasks such as registering for classes, paying tuition/fees, accessing personal information, viewing financial aid, viewing final grades, viewing/printing transcripts and more. To access SIS, students must login to MyMECC.

General Student Information

Student Photo ID

All MECC students must register for a student ID. You can obtain your student ID at the MECC Bookstore in Holton Hall.

Buying or Renting your Books

The MECC Bookstore is located on campus in Holton Hall. Hours and contact information are posted on the Bookstore's Web site. To buy or rent books, visit the MECC Bookstore or the Bookstore's website at http://bookstore.mecc.edu/home.aspx. Click the link for books, and then click the dropdown for textbooks and course

materials. Enter the specific course information and find the link to the ISBN number for the text. You can use your financial aid funds to pay for textbooks and required supplies only during certain dates each semester.

Parking Decals

All MECC students must register for a parking permit. Register for your parking permit at the MECC Bookstore in Holton Hall.

New Student Seminar

All new students are required to attend the New Student Seminar, a comprehensive two-day **SDV 100** course which is scheduled prior to the first day of class. Completion of the New Student Seminar provides an opportunity for new students to begin classes more prepared for their college experience and allows them the opportunity to make connections with their fellow students and college personnel. For more information, visit www.mecc.edu/newstudent.

Wampler Library

MECC's Wampler Library is located on the second floor of Robb Hall. Visit the library to access the material and research you need for courses. Library resources are available online at www.mecc.edu/library.

Email/Text Alerts

For your safety and convenience, MECC strongly recommends students enroll in the College's emergency alert system. The alert system will notify you quickly with an email and/or text about MECC closings due to inclement weather or about emergency situations. To register for text alerts, visit www.mecc.edu/textalerts.

Student Handbook

The MECC Student Handbook contains information about your, college operations and college policies. The Student Handbook contains additional information and MECC's Code of Conduct. To access the MECC Student Handbook, visit www.mecc.edu/handbook.

Social Media

Important announcements regarding events, schedule changes, and activities are shared on MECC's social media sites. Join us on Facebook at facebook.com/mountainempirecollege, on Twitter @MECCVa, and on Instagram @MECCedu.

Get Help When You Need It

Advising and Testing

The Office of Student Services provides advising and testing services. For more information on testing, visit www.mecc.edu/testing. The Office of Student Services is located in Holton Hall or call 276.523.7472.

Tutoring and Academic Assistance

MECC's Learning Center provides academic support services to students who meet eligibility requirements. Services include: tutoring, mentoring, transfer assistance, career counseling, personal counseling, academic skills development (study skills, test-taking skills, etc.) and informative seminars. For more information, visit www.mecc.edu/tutoring.

Disability Services

MECC provides services to students with documented disabilities. For more information, visit the Office of Student Services in Holton Hall or call 276.523.9108 or www.mecc.edu/disabilityservices.

Veterans Assistance

MECC programs are approved for enrollment of qualified veterans, survivors, dependents and certain reservists. For more information on services available to veterans and their families, call 276.523.9028 or visit www.mecc.edu/veterans.

Transfer Assistance

MECC provides assistance to students planning to transfer to a four-year college. Visit the Office of Student Services in Holton Hall, call 276.523.9106, or visit www.mecc.edu/transfer.

Transfer Virginia
webpage.: https://www.transfervirginia.org/resources?f%5B0%5D=field_cc_resource_type%3A36 to see agreements with other Virginia Colleges.

Career Assistance

MECC offers student career counseling to help students determine their career goals and/or college major. To schedule an appointment, visit Career Services located in the Office of Student Services in Holton Hall, call 276.523.7472, or visit www.mecc.edu/career-services.

Technology Assistance

Students who need assistance with Canvas may contact clee@mecc.edu or call 276.523.9070 from 8 a.m. to 4:30 p.m. Monday-Friday. Students who need Student Information System (SIS), Student Email, Log-in, Password or Username Assistance should contact the Technology Help Desk at helpdesk@mecc.edu.

Graduation

To be eligible for graduation with an associate degree, diploma, certificate, or career studies certificate from a Virginia community college, the student must:

- Fulfill all of the course and credit---hour requirements of the curriculum with at least 25% of the credits acquired at the college awarding the award;
- Be certified for graduation by the Academic Divisions and Enrollment Services/ Registrar;
- Earn a grade point average of at least a 2.0 in all studies attempted which are applicable toward graduation in their curricula;
- Meet any other competency requirements established by the College; and
- Resolve all financial obligations to the College and returned all library and College materials.

Assessment of Student Achievement
Students may be required to participate in one or more assessment activities designed to measure general education achievement and/ or achievement in selected major areas prior to graduation for the purpose of evaluation of academic programs. Results obtained in this context will remain confidential and will not be used to identify individual students. The College also reserves the right to exchange student information with area high schools and senior institutions for the sole purpose of improvement of the College.

Second Degree or Certificate
When awarding an additional degree, diploma, certificate or career studies certificate, the College may grant credit for all previously completed applicable courses which are requirements of the additional degree, diploma, certificate or career studies certificate. However, the awards must differ from one another by at least 25% of the credits.

Graduation with Honors
Students who have fulfilled the requirements of degree, diploma, or certificate programs (with the exception of career studies certificates), are eligible for graduation honors.

Appropriate honors are awarded based upon the student's cumulative grade point average recorded one semester prior to graduation (fall semester GPA for spring graduates and spring semester GPA for summer graduates) as follows:

Cum Laude (Honors), 3.2 GPA
Magna Cum Laude (High Honors), 3.5 GPA
Summa Cum Laude (Highest Honors), 3.8 GPA

Commencement
Mountain Empire Community College will host an annual commencement ceremony at the end of the spring semester.

Workforce Solutions

- Customized Training
- Job Skills Assessment Tools
- Continuing Education/Lifelong Learning
- On-going Training and Institutes

Mountain Empire Community College's Center for Workforce Development provides state-of-the art workforce training and services to individuals, businesses, industries, and government agencies. As an active member of the community, the Workforce Solutions collaborates with regional employers on an ongoing basis to maintain a competitive workforce in today's global economy.

To support the goals of business and industry, the Center provides customized job training offered at MECC or the client's site, as well as open enrollment courses for professional and personal development. Credit, non-credit, and distance education courses promote life-long learning and economic development in the Southwest Virginia Region.

The Virginia Small Business Development Center (SBDC) located at Mountain Empire Community College offers free business consulting, affordable training courses, personal referrals to local resources, guidance, insights, and connections to help businesses succeed.

Many community and continuing education programs are provided in response to the needs and interests of individuals or organizations within the service region. The Center cooperates with public agencies, civic groups, community organizations, business and industry, and other educational institutions to provide educational services for a greater number of people. Individuals in need of Continuing Education Units or CEUs will find a wide of variety of options available through the Center. Basic types of programming are offered: customized training, job skill assessments, continuing education/lifelong learning, quick-start training, seminars, and a variety of on-going training institutes.

Customized Training

Workforce Solutions designs timely, customized training programs to address the ever-changing opportunities and challenges faced by employers. Based on results of Training Needs Assessments, we design and implement Custom Training Programs to update and improve the skills of your workforce, increase employee engagement, improve company performance and help you achieve organizational goals. Our training can be brought to your work site or you can bring your employees to our training facilities.

Customized training focuses on skills that improve:

- organizational productivity (team building, management and leadership, coaching, or lean manufacturing);
- individual productivity (time management, managing stress, communication, or customer service);
- computer skills (Microsoft Office suite, technical certifications, or customized applications); and
- job specific skills (CPR, OSHA, Miner Training/Retraining, and many others).

Benefits of Customized Training

- Convenient class locations with on-site training available
- A comprehensive training plan, based on a training needs assessment, will address the skills and knowledge your employees need to help achieve your organizational goals
- Programs tailored to meet your company's specific needs
- Training positively impacts employee performance and profitability
- A well-trained workforce provides a competitive advantage

Job Skills Assessment Tools

WorkKeys® is a job skills assessment system that helps employers select, hire, train, develop, and retain a high-performance workforce. WorkKeys® connects work skills, training, and testing for employers and:

- is the basis for the National Career Readiness Certificate.
- WorkKeys® Foundational and Personal Skills assessments provide reliable, relevant information about workplace skill levels:
    - Foundational Skills assessments measure cognitive abilities such as applied mathematics, graphic literacy, and workplace documents.
    - Personal Skills assessment are designed to predict job behavior and measure the full potential of individuals.

Continuing Education/Lifelong Learning

- Lifelong Learning opportunities (art, crafts, and music classes, summer camps and enrichment programs)
- Continuing Education programs (project management certification classes, teacher recertification, etc.)

On-going Training and Institutes

Contact Workforce Solutions for scheduling of the following classes:

@Home Prep

Online Training that is fast, easy, and affordable. Complete our self-paced online training to obtain or renew your license/certificate. Available 24/7. Start and stop as you need. Tablet and smartphone compatible. Instant certificate upon completion for most courses.

Advanced Cardiovascular Life Support - Classroom

ACLS is designed for healthcare professionals who either direct or participate in the management of cardiopulmonary arrest and other cardiovascular emergencies. This includes personnel in emergency response, emergency medicine, intensive care and critical care units.

Advanced Emergency Medical Technician (AEMT)

This course is utilized to transition an EMT to an Advanced Emergency Medical Technician. Upon successful completion of the program and requirements, students will apply for National Registry testing and certification in the Commonwealth of Virginia.

Basic Contractor Licensing

MECC offers an eight-hour course designed to cover the regulations and practices that govern the contracting industry. Students will thoroughly review the required elements of preparing a contract in accordance with regulation, explore methods in selecting customers and jobs based on license classification and experience, explore the various business structures to meet their particular need, and discuss tips that will help them to avoid regulatory and business programs. The course is designed to guide a contractor in making choices that will ensure compliance with regulation and maintain the license through business success. Although the intent of this course is not designed for examination preparation, the subject matter covered and the materials will certainly be useful for those who will take the license text.

Cardiopulmonary Resuscitation (CPR)

MECC offers the American Heart Association Basic Life Support for Healthcare Provider certification course, covering adult, child, and infant CPR for both one person and two person scenarios.

The use of the AED and bag valve masks, along with assistance in choking response is covered. This course is certified by the American Heart Association.

CDL

Graduates of this four-week training program will have the knowledge and skills to become Class "A" CDL licensed drivers qualified to drive long distances, regionally or locally. Requires DMV Learners Permit Test, State Road Test, and DOT physical.

Concealed Weapons Permit

Discusses and explores safe firearms handling, laws, and procedures to acquire a concealed weapons permit.

CPR Instructor

Individuals who wish to become CPR Instructors can complete the American Heart Association certification course at MECC. The course is designed to credential persons to teach Heartsaver CPR, Heartsaver AED, Heartsaver First Aid, and BLS for Healthcare Provider CPR courses. This course is certified by the American Heart Association.

Driver Improvement Clinic

Mountain Empire Community Colleges offers a Virginia Department of Motor Vehicles approved Driver Improvement Clinic.

Emergency Medical Technician (EMT)

MECC offers the option of taking our Virginia Office of EMS-approved course as either a credit course or a workforce (non-credit) course. In addition to CPR certification, students successfully completing this 160 hour course will be eligible to take the National Registry exam to become a certified Emergency Medical Technician. Requires successful completion of a drug screen and a criminal and sexual background check.

First Aid

MECC offers the American Heart Association Heartsaver First Aid certification course, covering the basic principles of first aid, care and treatment of medical emergencies, care and treatment of injuries, and care and treatment of environmental emergencies. This course is certified by the American Heart Association.

Mine Training Courses

MECC offers a wide variety of certification courses and programs designed to meet the needs of the mining industry. Customized classes are also available to meet individual and company requests.

- Annual Refresher Surface - VA & KY
- Annual Refresher Underground - VA & KY
- New Miner Training - Underground and Surface
- General Coal Miner - Underground and Surface
- Electrical Retraining - VA, KY, & WV
- Diesel Retraining
- Surface and Underground Mine Foreman
- Virginia Deparatment of Energy Advanced First Aid
- Emergency Medical Responder (EMR) - Certification & Recertification
- Emergency Medical Technician (EMT) - Certification & Recertification
- CPR - Cardiopulmonary Resuscitation
- First Aid Certification & Recertification
- Virginia Department of Energy Reciprocity Advanced First-Aid
- CDL Training

Virginia Nurse Aide

MECC offers the option of taking our Virginia Board of Nursing-approved course as either a credit course or a workforce (non-credit) course. In addition to CPR certification, students successfully completing this 140 hour course will be eligible to take the Virginia Board of Nursing exam to become a Certified Nurse Aide. Requires successful completion of a drug screen and a criminal and sexual background check.

Occupational Safety and Health Administration (OSHA) Training

MECC offers a number of OSHA courses covering a variety of topics, including standards and hazard violations, overview of OSHA Act & 29 CFR, fire protection, personal protective equipment, material handling, electrical safety standards, hazard communications and more. These courses can be reserved by employers seeking to train a large number of employees or offered on an individual basis.

Paramedic

This course is utilized to transition experienced EMT-Intermediates, Registered Nurses, or Advanced Emergency Medical Technicians to the paramedic level. Upon successful completion of the program and requirements, students will apply for National Registry testing and certification in the Commonwealth of Virginia.

Pediatric Advanced Life Support (PALS)

The PALS Course is for healthcare providers who respond to emergencies in infants and children. These include personnel in emergency response, emergency medicine, intensive care and critical care units such as physicians, nurses, paramedics and others who need a PALS course completion card for job or other requirements.

Pharmacy Technician

Mountain Empire Community College offers an accredited (ASHP-American Society of Health-System Pharmacists) Pharmacy Technician program. The courses are designed to enable technicians to identify and describe significant federal legislation affecting pharmacy practice; identify and describe significant federal and state governing bodies affecting pharmacy; specify the duties that may legally be performed by pharmacy technicians; provide an overview of the types of prescription medication errors; and list strategies to reduce or eliminate prescription medication errors in pharmacy practice. The course provides 300 hours (30.0 CEU) of continuing education credit and prepares students for eligibilty to take the PTCB (Pharmacy Technician Certification Board) exam.

Power Lineman

Prepares students with the basic skills necessary to enter the electrical field as a Lineman. These skills include: overall safety considerations, power pole climbing skills, knowledge of the basic tools and materials involved with electrical crafts, general construction standards, basic rigging principles, and basic electrical theory that is specific to this trade. Classes introduce students to job related information and hands-on training. A component of the course includes preparation for the Construction and Skilled Trades (CAST) exam.

Security & Firearm Training

Security Officer Training is offered for individuals seeking their bi-annual recertification with the Department of Criminal Justice Services. Courses are also offered in firearms recertification, an annual requirement of the Department of Criminal Justice Services for any Private Investigator or Security Officer who carries a firearms endorsement card for a handgun or shotgun. Pre-registration for these courses is required.

Tradesman Continuing Education Unit (CEU) Courses

Tradesman CEU courses in Electrical, Plumbing, HVAC and Gas Fitters are offered on campus and online.

Academic Programs & Requirements

Mountain Empire Community College offers two-year associate degrees, one-year certificates, and short career studies certificates. The requirements for these awards for completion of curricula are determined by the College faculty and are intended to meet the requirements specified by the Commonwealth of Virginia, the Southern Association of Colleges and Schools Commission on Colleges, and certain specialized accrediting agencies.

Programs of Study

Associate of Arts
The Associate of Arts Degree (AA) is awarded to students majoring in liberal arts who plan to transfer to a four-year college or university. Visit www.mecc.edu/programs for detailed program information.

Associate of Science
The Associate of Science Degree (AS) is awarded to students majoring in business administration, education, engineering, general studies, science, or software engineering who plan to transfer to a four-year college or university. Visit www.mecc.edu/programs for detailed program information.

Associate of Applied Science
The Associate of Applied Science Degree (AAS) is awarded to students majoring in one of the occupational-technical degree curricula who plan to obtain full-time employment upon graduation. Associate of Applied Science degrees (AAS) are not intended for transfer. Visit www.mecc.edu/programs for detailed program information.

Certificates
MECC's Certificates are awarded for the completion of various curricula of study less than two years in length, totaling between 30 and 59 credits. At least 15 percent of the credits must be in general education. Most certificates prepare the student for a specific job or aspect of a job. Some certificates are part of an associate degree program, in which case the credit earned in the certificate may be used toward the degree. These curricula typically are not designed for transfer to a four-year college or university. However, in some limited cases, career courses may transfer, and there may be articulation arrangements with four-year colleges as part of a special program.

Career Studies Certificates
Career Studies Certificates are awarded for a specific group of career-related courses totaling between 9 and 29 credits. Career Studies Certificates are not intended for transfer. Career studies programs are designed for enhancement of job/life skills, retraining for career changes, and/or investigating new career possibilities. Credit earned in most career studies certificates may be used to meet the requirements in certificate and degree programs that require similar courses.

Understanding Program Options and Curriculum Requirements

Degrees & Certificates

Mountain Empire Community College offers two-year associate degrees, one-year certificates, and career studies certificates. The requirements for these awards for completion of curricula are determined by the College faculty and are intended to meet the requirements specified by the Commonwealth of Virginia, the Southern Association of Colleges and Schools Commission on Colleges, and certain specialized accrediting agencies.

Terminology

Unless otherwise noted, the term program refers to an associate degree with its own curriculum code and all related specializations, certificates, and career studies certificates. The Virginia Community College System defines a major as a grouping of 100- and 200-level courses that define a discipline or interdisciplinary specialty. A degree program is a broadly structured curriculum leading to the award of an associate degree and is listed on a student's diploma. A specialization is an area of concentration within an approved major that varies from the parent major by 9-15 credits. A certificate is awarded for the completion of an approved non-degree curriculum consisting of 30-59 semester credit hours, usually in a career area; a minimum of 15 percent of a certificate's credit hour requirement will be in general education including one three-credit-hour English class. A career studies certificate is awarded for the completion of an approved non-degree curriculum of 9-29 semester credit hours in length.

Associate of Arts Degree (AA)
The AA degree is designed for those who plan to transfer to a four-year college or university.

Associate of Science Degree (AS)
The AS degree is designed for those who plan to transfer to a four-year college or university.

Associate of Applied Science Degree (AAS)
The AAS degree is for students primarily interested in acquiring technical skills that lead directly to employment after graduation. Associate of Applied Science degrees are not intended for transfer.

Certificate (C)
Certificates are awarded for career-technical programs, usually two semesters in length. Certificates are not intended for transfer.

Career Studies Certificate (CSC)
Career Studies programs are designed for enhancement of job/life skills, retraining for career changes, and/or investigating new career possibilities. Career Studies certificates are not intended for transfer.

State and Regional Cooperative Programs
In the Virginia Community College System, certain highly-specialized curricula, though designed to serve all Virginia residents, are offered only in selected locations. These curricula generally reflect geographic, demographic, or economic considerations which preclude extensive statewide offerings, and therefore, usually are approved for not more than three community colleges to meet state or regional requirements. As changing circumstances warrant and additional state and regional needs are determined, specialized curricula may be located in other community college regions.

Transfer Virginia
Transfer Virginia is a VCCS initiative that embraces the growing need for seamless transfer among the Commonwealth's institutions. Transfer Agreements University partners, in consultation with VCCS partners, develop guidelines, processes, and supporting policy for transfer tools that best serve our collective students. This is through program level articulation agreements, reverse transfer agreements, and guaranteed program admission agreements with the aspiration for regionally created agreements to be more universally applicable across the Commonwealth (see advisor).

Passport
The Passport is a 16-credit hour community college block of courses in which all courses are transferable and shall satisfy a lower-division general education requirement at any public institution of higher education. Being passport certified means the student completed 16 credits of guaranteed transfer courses over 5 specific academic areas. This is not a credential (see advisor).

Virginia Dual Enrollment Plan between Public Schools and Community Colleges
Dual enrollment allows qualified high school students to enroll in college coursework while still in high school. Courses are taught by full or part-time faculty who meet VCCS credentialing requirements and credit for dual enrollment courses is generally accepted at all Virginia private and public colleges. It's important that students and their parents understand that the amount of work necessary to succeed in dual enrollment courses is greater than in high school courses. In addition, dual enrollment courses become part of permanent college transcripts so it's essential that students do well in these courses to realize all the benefits of dual enrollment which include:

- A quality, affordable education close to home
- Enriched course opportunities for outstanding high school students both in academic coursework and in career and technical education
- Students enter college with credits applicable to their degree program
- Students gain understanding of the rigor of college work as well as college faculty expectations
- Access to college resources, facilities and services such as advising and career counseling

Interested students must first take the College placement exam. They must also meet the following criteria:

- High school juniors or seniors attending a public or private school (exceptional freshman and sophomores may be eligible with approval from both high school principal and college president)
- Meet or exceed college placement requirements
- Receive a recommendation from a high school official

- Parental consent provided prior to student enrollment

Home-schooled students are also eligible for the program. These students are urged to contact MECC to discuss the options available to them.

Dual enrollment courses may be used to satisfy degree requirements of an Associate of Arts and Associate of Science degrees with MECC or transfer in most cases directly to a four-year college or university. Credit for Career Technical Education courses is available that may be used to begin a certificate or Associate of Applied Science degree with MECC.

Gen Ed Core Competencies

- VCCS/MECC General Education Goals and Student Learning Outcomes
- License Requirements

General education, as an integrated and cohesive whole, provides the educational foundation necessary to promote intellectual and personal development. Upon completion of the associate degree, graduates of Virginia's Community Colleges will demonstrate competency in student learning outcomes (SLOs) determined and assessed by each college in the following general education areas: 1) civic engagement, 2) critical thinking, 3) professional readiness, 4) quantitative literacy, 5) scientific literacy, and 6) written communication. Collectively, these general education core competencies distinguish graduates of Virginia's Community Colleges as individuals with a breadth of knowledge, skills, and abilities needed to pursue further education and their careers, continue to develop as learners, and contribute to the well-being of their communities. The six competencies are defined in policy (VCCS 5.0.2.1.) with aspirational statements of learning goals for graduates. Each community college will determine and assess specific learning outcomes based on the definitions and aspirational statements.

The associate degree programs within the Virginia's Community College System support a collegiate experience that meets the general education requirements of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and the State Council of Higher Education for Virginia (SCHEV). The general education core competencies shall be included in the catalog of each college.

VCCS/MECC General Education Goals and Student Learning Outcomes

VCCS degree graduates will demonstrate competency in the following general education areas:

1. **Civic Engagement** is the ability to contribute to the civic life and well-being of local, national, and global communities as both as social responsibility and a life-long learning process. Degree graduates will demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society. Degree graduates will demonstrate the ability to:
    - summarize fundamental principles and debates about democracy and citizenship, both within the United States and in other countries
    - reflect on personal social/civic identity and how that identity differs from others in their communities
    - deliberate on issues and problems to advance or achieve a civic aim
    - recognize the value of diverse feelings, perspectives, and life experiences, and the strength that such diversity brings to civic life
    - examine the ethical implications of community and civic actions and decisions
    - consider and respond to civic, social, environmental, or economic challenges at local, national, or global levels
    - identify personal and collective actions that could be taken to address injustices in society

2. **Critical Thinking** is the ability to use information, ideas and arguments from relevant perspectives to make sense of complex issues and solve problems. Degree graduates will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions. Degree graduates will demonstrate the ability to:
    - discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data;
    - recognize parallels, assumptions, or presuppositions in any given source of information;
    - evaluate the strengths and relevance of arguments on a particular question or issue;
    - weigh evidence and decide if generalizations or conclusions based on the given data are warranted;
    - determine whether certain conclusions or consequences are supported by the information provided,
    - use problem solving skills.
3. **Professional Readiness** is the ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education. Degree graduates will demonstrate the ability to:
    - ability to maintain open, effective, and professional communications
    - ability to demonstrate appropriate workplace and classroom demeanor and behavior;
    - ability to work effectively with others on a task in a group or a team to achieve a common goal while maintaining constructive interpersonal relationships
    - ability to solve a challenge or program through innovative ways
    - practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.
4. **Quantitative Literacy** is the ability to perform accurate calculations, interpret quantitative information, apply and analyze relevant numerical data, and use results to support conclusions. Degree graduates will calculate, interpret, and use numerical and quantitative information in a variety of settings. Degree graduates will demonstrate the ability to:
    - determine whether the source of the information is authentic, valid, and reliable.
    - explain numerical information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)
    - convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)
    - accurately solve mathematical problems
    - make judgments and draw relevant conclusions from quantitative analysis of data and predict future trends when appropriate
    - use quantitative evidence to support a position or clarify a purpose orally or in writing using appropriate language, symbolism, data, and graphs
5. **Scientific Literacy** is the ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to us the scientific method, and to evaluate empirical information. Degree graduates will demonstrate the ability to:
    - generate an empirically evidenced and logical argument;
    - distinguish a scientific argument from a non-scientific argument;
    - reason by deduction, induction and analogy;
    - distinguish between causal and correlational relationships;
    - recognize methods of inquiry that lead to scientific knowledge.
6. **Written Communication** is the ability to develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Degree graduates will express themselves effectively in a variety of written forms. Degree graduates will demonstrate the ability to:
    - clearly identifies the purpose of the message and focuses the delivery to the audience
    - uses appropriate and relevant content to illustrate main ideas
    - organizes and presents a main idea clearly and concisely with a basic structure
    - uses standard American English, and accepted, conventional grammar and mechanics
    - recognize the role of culture in communication.

Table 5-1
Minimum Requirements for
Associate Degrees in the VCCS

	Minimum Number of Semester Hour Credits			
General Education:	**(1)** AA	**(2)** AS	**(3)** AFA	**(4)** AAA / AAS
Communication	6[a]	6[a]	6	3-6
Humanities/Fine Arts/Literature	6[c]	6[c]	3-9[b]	3-6
Social/Behavioral Sciences	6[d]	6[d]	3-9	3-6
Natural Sciences	4	4-8	4	0-6[e]
Mathematics	3	3-6	3	0-6[e]
Institutional Specific General Education Courses	5-6	5-6	0	0
Total for General Education =	30-31	30-38	19-28	15[g]
Other Requirements for Associate Degrees:				
Student Development	1-2	1-2	1-2	1-2
Transfer Core[f] (columns 1-3) Career/technical courses (column 4)	27-32	20-32	34-43	43-53
Total for Degree =	**60-63**	**60-63[h]**	**60-63**	**60-69[h]**

Notes:

[a] Each of the courses in communication must be in written communication.

[b] One course in humanities/fine arts for the Fine Arts major must be a literature course.

[c] Each of the two courses cannot be from the same discipline area (e.g. humanities).

[d] One course in social/behavioral sciences must be a history course and the second required course cannot be history.

[e] A total of 3-6 semester hours is required in either natural sciences and/or mathematics for the AAA and AAS.

[f] Transfer core includes additional general education and/or major courses.

[g] As specified above, degree programs must contain a minimum of 15 semester hours of general education as defined by SACSCOC.

[h] See Policy 5.1.0.0.4.6 for exceptions to the total credits allowed.

Table 5-2
Minimum Requirements for
Diplomas, Certificates, and Career Studies Certificates

	Diploma	**Certificate**	**Career Studies Certificate**
Definition	A two-year curriculum with an emphasis in a career/technical area	A curriculum that consists of a minimum of 30 semester credit hours	A program of study of not less than 9 nor more than 29 semester credit hours
Course Requirements	May include any appropriate courses numbered 10-299	May include any appropriate courses numbered 10-299	May include any appropriate courses numbered 10-299
General Education Requirements	A minimum of fifteen percent (15%) of credit hour requirements shall be in general education, including 1 three-credit English course.	A minimum of fifteen percent (15%) of credit hour requirements shall be in general education, including 1 three-credit English course.	There are no general education requirements.
Graduation Requirements	Policy 5.1.2 • 25% of credit hours must be taken at home institution. • 2.0 GPA • Graduation honors eligible	Policy 5.1.2 • 25% of credit hours must be taken at home institution. • 2.0 GPA • Graduation honors eligible	Policy 5.1.2 • 25% of credit hours must be taken at home institution. • 2.0 GPA • Not eligible for graduation honors

Approval	State Board for Community Colleges	Chancellor	Local College Board

License Requirements

The Department of Professional and Occupational Regulation (DPOR) licenses, certifies, registers, and disciplines those professions, occupations, businesses, and individuals that the Virginia General Assembly has determined must be regulated in order to protect the health, welfare, and safety of the public. The majority of professions and occupations regulated by DPOR require applicants to successfully pass minimum competency exams before they are licensed at the entry level. Licensing, certification and registration play a major role in protecting the public. MECC offers courses to prepare for certification in the following professions and occupations:

- Contractor
- LP Gas Fitter
- Real Estate Appraiser
- Real Estate Sales and Broker
- Tradesman (electrician, plumber, HVAC)
- Waterworks/Wastewater Works Facility Operator
- Waste Management Facility Operator

For more information and a complete listing on these professions and occupations, please visit the DPOR web site at www.state.va.us/dpor or call 804.367.8500 and ask for the board regulating the profession or occupation of interest to you.

College Transfer Electives

This listing represents the courses offered in the transfer degree programs of MECC. Students and advisors may use this listing to select options for transfer electives, humanities electives and social science electives. Several courses are included because they are applicable to a specific articulation agreement. Inclusion in this comprehensive list is not a guarantee that the course will be offered in a given semester nor acceptance of transferability at another college/university. Selection of courses should be made based on planning for a desired career path or for the college/university degree program to which you intend to transfer.

College Transfer Elective

- ACC 211 - Principles of Accounting I **3 Credits**
- ACC 212 - Principles of Accounting II **3 Credits**
- ADJ 100 - Survey of Criminal Justice **3 Credits**
- ART 101 - History of Art: Prehistoric to Gothic **3 Credits**
- ART 102 - History of Art: Renaissance to Modern **Credits**
- ART 121 - Foundations of Drawing **3 Credits**
- ART 125 - Introduction to Painting **3 Credits**
- ART 180 - Introduction to Computer Graphics **3 Credits**
- ART 203 - Animation I **3 Credits**
- ART 241 - Painting I **3 Credits**
- ART 242 - Painting II **3 Credits**

- ASL 101 - Beginning American Sign Language I **4 Credits**
- ASL 102 - Beginning American Sign Language II **4 Credits**
- BIO 101 - General Biology I **4 Credits**
- BIO 102 - General Biology II **4 Credits**
- BIO 106 - Life Sciences **4 Credits**
- BIO 141 - Human Anatomy & Physiology I **4 Credits**
- BIO 142 - Human Anatomy & Physiology II **4 Credits**
- BIO 145 - Basic Human Anatomy & Physiology **4 Credits**
- BIO 150 - Microbiology for Health Sciences **4 Credits**
- BIO 231 - Human Anatomy & Physiology I **4 Credits**
- BIO 232 - Human Anatomy & Physiology II **4 Credits**
- BUS 200 - Principles of Management **3 Credits**
- BUS 241 - Business Law I **3 Credits**
- BUS 242 - Business Law II
- CHI 101 - Beginning Chinese I **4 Credits**
- CHI 102 - Beginning Chinese II **4 Credits**
- CHM 101 - Introductory Chemistry **4 Credits**
- CHM 111 - General Chemistry I **4 Credits**
- CHM 112 - General Chemistry II **4 Credits**
- CHM 241 - Organic Chemistry I **3 Credits**
- CHM 242 - Organic Chemisty II **3 Credits**
- CHM 245 - Organic Chemistry I Laboratory **2 Credits**
- CHM 246 - Organic Chemistry II Laboratory **2 Credits**
- CST 100 - Principles of Public Speaking **3 Credits**
- CST 110 - Introduction to Human Communication **3 Credits**
- CST 130 - Introduction to the Theatre **3 Credits**
- CST 141 - Theatre Appreciation I **3 Credits**
- CST 229 - Intercultural Communication **3 Credits**
- ECO 150 - Economics Essentials: Theory and Application **3 Credits**
- ECO 201 - Principles of Macroeconomics **3 Credits**
- ECO 202 - Principles of Microeconomics **3 Credits**
- EDU 200 - Foundations of Education **3 Credits**
- EGR 121 - Foundations of Engineering **2 Credits**
- EGR 122 - Engineering Design **3 Credits**
- EGR 125 - Introduction to Computer Programming for Engineers **4 Credits**
- EGR 140 - Engineering Mechanics Statics **3 Credits**
- EGR 206 - Engineering Economics **2 Credits**
- EGR 245 - Dynamics **3 Credits**
- EGR 246 - Mechanics of Materials **3 Credits**
- ENG 111 - College Composition I **3 Credits**
- ENG 112 - College Composition II **3 Credits**
- ENG 211 - Creative Writing I **3 Credits**
- ENG 212 - Creative Writing II **3 Credits**
- ENG 245 - British Literature **3 Credits**
- ENG 246 - American Literature **3 Credits**
- ENG 255 - World Literature **3 Credits**
- FRE 101 - Beginning French I **4 Credits**

- FRE 102 - Beginning French II **4 Credits**
- GEO 210 - People and the Land: Intro to Cultural Geography **3 Credits**
- GER 101 - Beginning German I **4 Credits**
- GER 102 - Beginning German II **4 Credits**
- GOL 105 - Physical Geology **4 Credits**
- GOL 111 - Oceanography I **4 Credits**
- GOL 112 - Oceanography II **4 Credits**
- HIS 101 - Western Civilizations Pre-1600 CE **3 Credits**
- HIS 102 - Western Civilizations Post-1600 CE **3 Credits**
- HIS 111 - World Civilizations Pre-1500CE **3 Credits**
- HIS 112 - World Civilization Post-1500CE **3 Credits**
- HIS 121 - United States History to 1877 **3 Credits**
- HIS 122 - United States History Since 1865 **3 Credits**
- HIS 205 - Local History **3 Credits**
- HIS 269 - Civil War and Reconstruction **3 Credits**
- HIS 276 - U.S. History Since World War II
- HIS 281 - History of Virginia I **3 Credits**
- HLT 105 - Cardiopulmonary Resuscitation **1 Credits**
- HUM 153 - Introduction to Appalachian Studies **3 Credits**
- HUM 202 - Modern Humanities **3 Credits**
- HUM 210 - Intro to Women and Gender Studies
- HUM 212 - Survey of American Culture
- HUM 218 - Survey of Horror **3 Credits**
- HUM 220 - Introduction to African American Studies **3 Credits**
- HUM 256 - Comparative Mythology **3 Credits**
- HUM 259 - The Greek and Roman Tradition **3 Credits**
- HUM 260 - Contemporary Humanities **3 Credits**
- ITE 152 - Introduction to Digital and Information Literacy and Computer Applications **3 Credits**
- ITP 120 - Java Programing I
- ITP 132 - C++ Programming I **3 Credits**
- ITP 232 - C++ Programming II **3 Credits**
- JPN 102 - Japanese II **4 Credits**
- MTH 154 - Quantitative Reasoning **3 Credits**
- MTH 155 - Statistical Reasoning **3 Credits**
- MTH 161 - Pre-Calculus I **3 Credits**
- MTH 162 - Pre-Calculus II **3 Credits**
- MTH 245 - Statistics I **3 Credits**
- MTH 246 - Statistics II
- MTH 261 - Applied Calculus I **3 Credits**
- MTH 262 - Applied Calculus II
- MTH 263 - Calculus I **4 Credits**
- MTH 264 - Calculus II **4 Credits**
- MTH 265 - Calculus III **4 Credits**
- MTH 266 - Linear Algebra **3 Credits**
- MTH 267 - Differential Equations **3 Credits**
- MUS 121 - Music in Society **3 Credits**
- MUS 225 - The History of Jazz **3 Credits**

- NAS 125 - Meteorology **4 Credits**
- NAS 131 - Astronomy: Solar System **4 Credits**
- NAS 132 - Astronomy: Stars and Galaxies **4 Credits**
- PHI 220 - Ethics and Society **3 Credits**
- PHY 201 - General College Physics I **4 Credits**
- PHY 202 - General College Physics II **4 Credits**
- PHY 241 - University Physics I **4 Credits**
- PHY 242 - University Physics II **4 Credits**
- PLS 135 - U. S. Government & Politics **3 Credits**
- PSY 200 - Principles of Psychology **3 Credits**
- PSY 215 - Abnormal Psychology **3 Credits**
- PSY 230 - Developmental Psychology **3 Credits**
- PSY 235 - Child Psychology **3 Credits**
- PSY 236 - Adolescent Psychology **3 Credits**
- REL 100 - Introduction to the Study of Religion **3 Credits**
- REL 200 - Survey of the Old Testament **3 Credits**
- REL 210 - Survey of the New Testament **3 Credits**
- REL 230 - Religions of the World **3 Credits**
- REL 240 - Religions in the U.S. **3 Credits**
- SOC 200 - Introduction to Sociology **3 Credits**
- SOC 211 - Cultural Anthropology **3 Credits**
- SOC 215 - Sociology of the Family **3 Credits**
- SOC 268 - Social Problems **3 Credits**
- SPA 101 - Beginning Spanish I **4 Credits**
- SPA 102 - Beginning Spanish II **4 Credits**
- SPA 201 - Intermediate Spanish I **3 Credits**
- SPA 202 - Intermediate Spanish II **3 Credits**

Humanities Elective

- ART 101 - History of Art: Prehistoric to Gothic **3 Credits**
- ART 102 - History of Art: Renaissance to Modern **Credits**
- CST 141 - Theatre Appreciation I **3 Credits**
- ENG 211 - Creative Writing I **3 Credits**
- ENG 212 - Creative Writing II **3 Credits**
- ENG 245 - British Literature **3 Credits**
- ENG 246 - American Literature **3 Credits**
- ENG 255 - World Literature **3 Credits**
- HUM 153 - Introduction to Appalachian Studies **3 Credits**
- HUM 202 - Modern Humanities **3 Credits**
- HUM 210 - Intro to Women and Gender Studies
- HUM 212 - Survey of American Culture
- HUM 218 - Survey of Horror **3 Credits**
- HUM 220 - Introduction to African American Studies **3 Credits**
- HUM 256 - Comparative Mythology **3 Credits**
- HUM 259 - The Greek and Roman Tradition **3 Credits**

- HUM 260 - Contemporary Humanities **3 Credits**
- MUS 121 - Music in Society **3 Credits**
- PHI 220 - Ethics and Society **3 Credits**
- REL 100 - Introduction to the Study of Religion **3 Credits**
- REL 200 - Survey of the Old Testament **3 Credits**
- REL 210 - Survey of the New Testament **3 Credits**
- REL 230 - Religions of the World **3 Credits**
- REL 240 - Religions in the U.S. **3 Credits**

Social Science Elective

- ECO 201 - Principles of Macroeconomics **3 Credits**
- ECO 202 - Principles of Microeconomics **3 Credits**
- GEO 210 - People and the Land: Intro to Cultural Geography **3 Credits**
- PLS 135 - U. S. Government & Politics **3 Credits**
- PSY 200 - Principles of Psychology **3 Credits**
- PSY 215 - Abnormal Psychology **3 Credits**
- PSY 230 - Developmental Psychology **3 Credits**
- SOC 200 - Introduction to Sociology **3 Credits**
- SOC 211 - Cultural Anthropology **3 Credits**
- SOC 215 - Sociology of the Family **3 Credits**
- SOC 268 - Social Problems **3 Credits**

Note about Governor's School:

Some of the Governor's School courses are transfer electives and others are technical electives. Please consult with an advisor for specific details.

How to Use Curriculum Guides for Academic Planning

Curriculum guides are provided for each program of study offered by the College. The guides are listed in alphabetical order by degree classification (Associate of Arts & Sciences, Associate of Applied Science, Certificate, and Career Studies Certificate). The guides are intended to help academic advisors assist students in the planning of courses for their academic programs. Courses will be offered as presented in the curriculum guides (by semester), except where enrollments in a class section are too small to warrant the offering as planned. It is the College's intention to provide the maximum flexibility in the scheduling of courses to accommodate the scheduling needs of our students. Students and advisors should refer to the online Student Information System prior to each semester for the most up-to-date information on course offerings.

Pathways

Transfer Pathways

The Associate in Arts and Sciences Degree programs are designed for students planning to transfer to a four-year college or university. The following program guides outline a sequence in which the various courses may be taken. Students may select their own courses and sequences, but should adhere to the requirements for graduation.

Career Pathways

Career Pathway programs are designed for students majoring in an occupational-technical field who plan to obtain full-time employment upon graduation. Programs of study are developed with the assistance of advisory committees representing business and industry and current market requirements. Students may earn a career certificate, certificate, or degree. These programs are not intended for transfer.

Transfer Pathways

Business Administration, AS

Purpose

The Associate of Arts & Sciences degree programs are designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most fouryear colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Arts & Science degree (AA&S). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study. This degree plan is closely aligned to local universities and colleges. Please see your advisor for specific guidelines.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.
7. Economic Literacy: Apply basic economic concepts to current issues.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine

the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

Wes Mullins, MBA
jmullins@mecc.edu
276.523.9017

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

FIRST YEAR FALL:

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Science - Biology, Chemistry, or Physics **4 Credits** 3

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

FIRST YEAR SPRING:

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Any PED course or HLT 105
- Humanities Elective (take any HUM, PHI, or REL prefix course) **3 Credits**

MTH 162 - Pre-Calculus II

3 Credits

Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics. Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Science - Biology, Chemistry, or Physics **4 Credits 3**

SECOND YEAR FALL:

- ENG - Literature **3 Credits**

ACC 211 - Principles of Accounting I

3 Credits

Introduces accounting principles with respect to financial reporting. Demonstrates how decision makers use accounting information for reporting purposes. Focuses on the preparation of accounting information and its use in the operation of organizations, as well as methods of analysis and interpretation of accounting information.
Lecture Hours 3

ECO 201 - Principles of Macroeconomics

3 Credits

Presents the fundamental macroeconomic concepts, theories, and issues including the study of scarcity and opportunity

cost, supply and demand, national economic growth, inflation, recession, unemployment, fiscal and monetary policies, and international trade. Develops an appreciation of how these economic concepts apply to consumer, business, and government decisions, and their effect on the overall economy. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

CST 100 - Principles of Public Speaking

3 Credits

Applies theory and principles of public address with an emphasis on preparation and on the extemporaneous method of delivery. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports, including the production of at least one APA/MLA-formatted individual writing assignment. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- College Transfer Electives **3 Credits**[3]

SECOND YEAR SPRING:

ACC 212 - Principles of Accounting II

3 Credits

Introduces accounting principles with respect to cost and managerial accounting. Focuses on the application of accounting information with respect to product costing, as well as its use within the organization to provide direction and to judge performance.
Prerequisite ACC 211
Lecture Hours 3

ECO 202 - Principles of Microeconomics

3 Credits

Presents the fundamental microeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, elasticities, marginal revenues and costs, profits, production and distribution. Develops an appreciation of how these economic concepts apply to consumer and business decisions, and their effect on the individual. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

- Approved Humanities Elective **3 Credits**

- College Transfer Electives **6 Credits** [3]

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.

Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 62

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

[1] In addition to the economics requirements for the community colleges, students are advised to complete a Political Science and Psychology course, or a full year of a sophomore social science if required by the four-year college or university to which you plan to transfer.
2 All students pursuing an Associate of Arts and Sciences degree must demonstrate information literacy by completing ITE 152, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test.
3 Students should consult with their academic advisor to select courses required by their desired degree at their transfer institution.

See advisor to register for SDV 195 for the final semester.

Education, AS

PK-8, PK-6, Middle School Special Education

Purpose

The Associate of Science degree in Education is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most fouryear colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Science degree (AS). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study. This degree plan is closely aligned to local universities and colleges. Please see your advisor for specific guidelines.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.
7. Teacher Preparation: Demonstrate knowledge of the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

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276.523.9034

Dr. Ted Booth, Dean
tbooth@mecc.edu
276.523.9038

Program of Study

FIRST YEAR FALL:

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

OR

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

BIO 101 - General Biology I

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS Transfer course. Credit towards graduation cannot be awarded for both BIO 101 and BIO 106.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- **Humanities Elective**[1]

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

FIRST YEAR SPRING:

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

BIO 102 - General Biology II

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence. This is a UCGS transfer course. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Pre-requisite: BIO 101 or Departmental Permission.
Prerequisite BIO 101
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

or

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

EDU 200 - Foundations of Education

3 Credits

Explores the foundational topics related to education. Emphasizes the historical, philosophical, social, legal, ethical, and professional aspects of teaching. This course requires a practicum with a minimum of 20 hours of observation in a K-12 setting.
Prerequisite 24 Transfer Credits and ENG 111
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

CHM 111 - General Chemistry I

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 and Readiness for ENG 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

SECOND YEAR FALL:

- **ENG Literature:** (ENG 245, 246, or 255)

ECO 201 - Principles of Macroeconomics

3 Credits

Presents the fundamental macroeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, national economic growth, inflation, recession, unemployment, fiscal and monetary policies, and international trade. Develops an appreciation of how these economic concepts apply to consumer, business, and government decisions, and their effect on the overall economy. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

ECO 202 - Principles of Microeconomics

3 Credits

Presents the fundamental microeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, elasticities, marginal revenues and costs, profits, production and distribution. Develops an appreciation of how these economic concepts apply to consumer and business decisions, and their effect on the individual. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

CST 100 - Principles of Public Speaking

3 Credits

Applies theory and principles of public address with an emphasis on preparation and on the extemporaneous method of delivery. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports, including the production of at least one APA/MLA-formatted individual writing assignment. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

EDU 204 - Teaching in a Diverse Society

3 Credits

Examines how personal and professional identities, positioning, and intersectional positionalities, values, attitudes, beliefs, and behaviors impact teaching and learning. Develops an understanding of similar and unique characteristics of PreK-12 students and their families, including culture, race, ethnicity, religion, language and learning abilities, gender socializations and sexual orientation. This course requires a practicum with a minimum of 20 hours of observation in a K-12 setting.
Prerequisite EDU 200
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

SECOND YEAR SPRING:

PLS 135 - U. S. Government & Politics

3 Credits

Teaches the political structure, processes, institutions, and policymaking of the US national government. Focuses on the three branches of government, their interrelationships, and how they shape policy. Addresses federalism; civil liberties and civil rights; political socialization and participation; public opinion, the media; interest groups; political parties; elections; and policymaking. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

EDU 250 - Foundations of Exceptional Education

3 Credits

Explores the historical, ethical, social, cultural, and legal practices for providing educational services for individuals with exceptionalities including early intervention, inclusion, adapting environments, and supporting positive behavior.

Includes the study of characteristics of individuals with exceptionalities and the influence of culture and environment on development. Focuses on models, theories, and trends in special education.
Prerequisite EDU 200
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

- **General Transfer Elective[2] 3 Credits**

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 61

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information. **Students wishing to transfer to UVA at Wise need to take MTH 161.**

[1] *The student has these choices for first year humanities electives: ART 101, ART 102, CST 130, CST 151, MUS 121, MUS 225.*
[2] *See advisor to enroll in elective courses that meet the program requirements of the university to which you are transferring.*

See advisor to enroll in SDV 195 in final semester.

Engineering, AS

Purpose

The Associate of Science degree in Engineering is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most four-year colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Science degree (AS). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study. This degree plan is closely aligned to local universities and colleges and meets the Guaranteed Admission Agreement between Virginia Tech and the Virginia Community College System found at the following link: http://www.admiss.vt.edu/form-pdf/engineeringarticulationagreement.pdf. Please see your advisor for specific guidelines.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.
7. Engineering Problem Solving: Apply fundamental engineering concepts to solve open-ended problems through a design process.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

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Program of Study

FIRST YEAR FALL:

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

EGR 121 - Foundations of Engineering

2 Credits

Introduces the engineering profession and its impact on society and the environment, including engineering problem solving, the engineering design process, and professional practices. Covers fundamental engineering calculations, descriptive statistics, basic spreadsheet and mathematical scripting language applications, professional ethics, teamwork, and communication.
Prerequisite MTH 162, MTH 167, and Readiness for ENG 111, or departmental approval
Lecture Hours 2
Note Typically Offered: Fall

CHM 111 - General Chemistry I

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 and Readiness for ENG 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

MTH 263 - Calculus I

4 Credits

Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. This is a Passport and UCGS transfer course.
Prerequisite MTH 167 or MTH 161/MTH 162 or equivalent with a grade of C or higher

Lecture Hours 4
Note Typically Offered: Fall/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

FIRST YEAR SPRING:

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Approved Social Science Elective **3 Credits** [1]

MTH 266 - Linear Algebra

3 Credits

Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, eigenvalues, and eigenvectors. Features instruction for mathematical, physical and engineering science programs.
Prerequisite MTH 263 or equivalent with a grade of B or higher or MTH 264 or equivalent with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 264 - Calculus II

4 Credits

Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course.
Prerequisite MTH 263 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Spring

EGR 122 - Engineering Design

3 Credits

Applies engineering methods to a semester-long team design project with an emphasis on engineering software involving 2D and 3D computer aided design; data modeling and analysis; and iterative programming solutions. Covers design drawings and dimensioning; spreadsheet software usage; mathematical scripting language; and professional practices.
Prerequisite EGR 121 or departmental approval.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

SECOND YEAR FALL:

PHY 241 - University Physics I

4 Credits

Covers classical mechanics and thermodynamics. Includes kinematics, Newton's laws of motion, work, energy, momentum, rotational kinematics, dynamics and static equilibrium, elasticity, gravitation, fluids, simple harmonic motion, calorimetry, ideal gas law, and the laws of thermodynamics. Part I of II. This is a UCGS transfer course.
Prerequisite MTH 263 with a grade of 'C' or higher
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

MTH 267 - Differential Equations

3 Credits

Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with applications and numerical methods.
Prerequisite MTH 264 or equivalent with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Spring

- Approved Humanities Elective **3 Credits** [2]
- EGR - Approved Sophomore Engineering Elective **3 Credits** [3]
- EGR - Approved Sophomore Engineering Elective **3 Credits** [3]

SECOND YEAR SPRING:

- EGR - Approved Sophomore Engineering Elective **3 Credits** [3]

MTH 265 - Calculus III

4 Credits

Focuses on extending the concepts of function, limit, continuity, derivative, integral and vector from the plane to the three dimensional space. Covers topics including vector functions, multivariate functions, partial derivatives, multiple

integrals and an introduction to vector calculus. Features instruction for mathematical, physical and engineering science programs.
Prerequisite MTH 264 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Fall/Spring/Summer

- ENG - Literature **3 Credits**

PHY 242 - University Physics II

4 Credits

Covers waves, electromagnetism and optics. Includes mechanical waves and sound, electrostatics, Ohm's law and DC circuits, magnetic forces and magnetic fields, electromagnetic induction, AC circuits, ray optics, and wave optics. Part II of II. This is a UCGS transfer course.
Prerequisite PHY 241 with a 'C' or higher and MTH 264 or department approval
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

- EGR - Approved Sophomore Engineering Elective **3 Credits** [3]

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

[1]*Students should consult the social science requirements of the institution to which they are transferring. Social sciences include: Economics, Political Science, Psychology, Geography, and Sociology.*
[2]*Students should consult the humanities requirements of the institution to which they are transferring. Humanities include: Art ART 101& ART 102), Music (MUS 121, MUS 122 , & MUS 225), Philosophy (PHI 220), Humanities (HUM prefix), and Religion (REL prefix).*
[3]*Students should consult their advisor for recommended engineering electives per their desired discipline and transfer institution. Electrical engineering electives are 4-credit courses.*

Students should see their advisor to enroll in SDV 195 for their final semester.

General Studies, AS

Purpose

The Associate of Science degree in General Studies is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most four-year colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Arts (AA). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Written Communication: Express themselves effectively in a variety of written forms.
2. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
3. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quanititative information in a variety of setting.
5. Professional Readiness: Demonstrates skills important for successful transition into the workplace and/or pursuite of further education.
6. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
7. Information Literacy: Ability to determine the nature and extent of the information needed; access needed information effectively and efficeintly; evaluate information and its sources critically and incorporate selected information into his or her knowledge base.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

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Program of Study

FIRST YEAR FALL

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **Humanities Elective**[1]

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

OR

MTH 263 - Calculus I

4 Credits

Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. This is a Passport and UCGS transfer course.
Prerequisite MTH 167 or MTH 161/MTH 162 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Fall/Summer

BIO 101 - General Biology I

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS Transfer course. Credit towards graduation cannot be awarded for both BIO 101 and BIO 106.
Lecture Hours 3

Lab hours 3
Note Typically Offered: Fall/Spring/Summer
OR

CHM 111 - General Chemistry I

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 and Readiness for ENG 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall
OR

PHY 201 - General College Physics I

4 Credits

Covers classical mechanics and thermodynamics. Includes kinematics, Newton's laws of motion, work, energy, momentum, rotational kinematics, dynamic and static equilibrium, elasticity, gravitation, fluids, simple harmonic motion, calorimetry, ideal gas law, and the laws of thermodynamics. Part I of II. This is a UCGS transfer course.
Prerequisite MTH 161 or MTH 167 with a grade of 'C' or higher
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

FIRST YEAR SPRING

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires

proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **Humanities Elective[1]**

MTH 162 - Pre-Calculus II

3 Credits

Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics. Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

OR

MTH 245 - Statistics I

3 Credits

Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression. Credit will not be awarded for both MTH 155 - Statistical Reasoning and MTH 245: Statistics I or equivalent.
Prerequisite MTH 154 or MTH 161 or equivalent with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring

OR

MTH 264 - Calculus II

4 Credits

Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course.
Prerequisite MTH 263 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Spring

BIO 102 - General Biology II

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence. This is a UCGS transfer course. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Pre-requisite: BIO 101 or Departmental Permission.
Prerequisite BIO 101

Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer
OR

CHM 112 - General Chemistry II

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part II of II. This is a Passport and UCGS transfer course.
Prerequisite CHM 111 with a grade of "C" or better
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring
OR

PHY 202 - General College Physics II

4 Credits

Covers waves, electromagnetism, optics, and modern physics. Includes mechanical waves, sound, electrostatics, Ohm's law and DC circuits, magnetic forces and magnetic fields, electromagnetic induction, ray optics, wave optics, and selected topics of modern physics. Part II of II. This is a UCGS transfer course.
Prerequisite PHY 201 with a 'C' or higher and MTH 162 or MTH 167
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

- **Social Science Elective[2]**

SECOND YEAR FALL

CST 100 - Principles of Public Speaking

3 Credits

Applies theory and principles of public address with an emphasis on preparation and on the extemporaneous method of delivery. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports, including the production of at least one APA/MLA-formatted individual writing assignment. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.

Lecture Hours 3
Note Typically Offered: Fall/Spring

OR

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **English Literature Elective[3]**

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **General Transfer Elective[4]**

SECOND YEAR SPRING

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

- **General Transfer Electives (4x3 hour courses for 12 hours)[4]**

Total Program Credits: 61-63

Total Program Credits: 61-63

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Requirements of four-year institutions may vary. Students should consult an academic advisor to select courses that will satisfy baccalaureate major requirements. In addition, they should confirm with the college or university to which they plan to transfer that they will receive credit at the four-year institution. For selection of all elective courses, see the list on the College Transfer Electives page.

[1] The student has these choices for first year humanities electives: ART 101, ART 102, CST 130, CST 151, MUS 121, MUS 225.
The student has these choices for second year humanities electives: HUM 202, HUM 218, HUM 220, HUM 256, HUM 259, HUM 260, REL 100, REL 230, REL 240 .
[2] The student has these choices for social science electives: ECO 201, ECO 202, GEO 210, GEO 220, PLS 135, PLS 140, PSY 200, SOC 200, SOC 211, SOC 268
[3] The student has these choices for English literature electives: ENG 245, 246, or 255
[4] For selection of all General Transfer Elective courses, see the list on the College Transfer Electives page.

See academic advisor to enroll in SDV 195 for your final semester.

Liberal Arts, AA

Purpose

The Associate of Arts degree in Liberal Arts is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most four-year colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Arts (AA). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Written Communication: Express themselves effectively in a variety of written forms.
2. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
3. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quanititative information in a variety of setting.
5. Professional Readiness: Demonstrates skills important for successful transition into the workplace and/or pursuite of further education.
6. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
7. Information Literacy: Ability to determine the nature and extent of the information needed; access needed information effectively and efficeintly; evaluate information and its sources critically and incorporate selected information into his or her knowledge base.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

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Program of Study

FIRST YEAR FALL:

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory).

Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

BIO 101 - General Biology I

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS Transfer course. Credit towards graduation cannot be awarded for both BIO 101 and BIO 106.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective: 3 credits[1]

FIRST YEAR SPRING:

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Electives: 3 credits[1]

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

CHM 101 - Introductory Chemistry

4 Credits

Explores the experimental and theoretical concepts of general chemistry while emphasizing scientific reasoning, critical and analytical thinking. Designed for the non-science major. This is a Passport and UCGS transfer course.
Prerequisite Competency in MTE 1-5 as demonstrated through placement or unit completion.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

- Social Science Elective: 3 credits[2]

SECOND YEAR FALL:

CST 100 - Principles of Public Speaking

3 Credits

Applies theory and principles of public address with an emphasis on preparation and on the extemporaneous method of delivery. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports, including the production of at least one APA/MLA-formatted individual writing assignment. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Social Science Elective: 3 credits[2]
- General Transfer Elective: 3 credits[3]

SECOND YEAR SPRING

- General Transfer Elective: 3 credits[3]
- General Transfer Elective 3 credits [3]
- General Transfer Elective 3 credits [3]
- General Transfer Elective 3 credits [3]

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 62

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Requirements of four-year institutions may vary. Students should consult an academic advisor to select courses that will satisfy baccalaureate major requirements. In addition, they should confirm with the college or university to which they plan to transfer that they will receive credit at the four-year institution. For selection of all elective courses, see the list on the College Transfer Electives page.

[1] The student has these choices for first year humanities electives: ART 101, ART 102, CST 130, CST 151, MUS 121, MUS 225.
The student has these choices for second year humanities electives: HUM 202, HUM 218, HUM 220, HUM 256, HUM 259, HUM 260, REL 100, REL 230, REL 240 .
[2] The student has these choices for social science electives: ECO 201, ECO 202, GEO 210, GEO 220, PLS 135, PLS 140, PSY 200, SOC 200, SOC 211, SOC 268
[3] For selection of all General Transfer Elective courses, see the list on the College Transfer Electives page.

See academic advisor to enroll in SDV 195 for your final semester.

Science, AS

Purpose

The Associate of Science degree in Science is designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most four-year colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Science degree (AS). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study. This degree plan is closely aligned to local universities and colleges. Please see your advisor for specific guidelines.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.
7. Science problem solving: Demonstrate proficiency in collecting reliable data and in analyzing, interpreting, and drawing conclusions from data.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

For Further Information, Contact:

Dr. Shanon Fritts
sfritts@mecc.edu
276.523.9040

Dr. Ted Booth, Dean of Arts and Sciences
tbooth@mecc.edu
276.523.9038

Program of Study

FIRST YEAR FALL:

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **Humanities Elective[1] 3 Credits**
- **Natural Science[2] 4 Credits**

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

FIRST YEAR SPRING:

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **Humanities Elective[1] 3 Credits**
- **Natural Science[2] 4 credits**

MTH 162 - Pre-Calculus II

3 Credits

Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics. Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- **Social Science Elective[3] 3 Credits**

SECOND YEAR FALL:

CST 100 - Principles of Public Speaking

3 Credits

Applies theory and principles of public address with an emphasis on preparation and on the extemporaneous method of delivery. The assignments in the course require college-level reading and analysis of scholarly studies and coherent communication through written reports, including the production of at least one APA/MLA-formatted individual writing assignment. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

OR

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 263 - Calculus I

4 Credits

Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. This is a Passport and UCGS transfer course.
Prerequisite MTH 167 or MTH 161/MTH 162 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Fall/Summer

- **Natural Science[3] 4 Credits**

SECOND YEAR SPRING:

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of

statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

OR

MTH 264 - Calculus II

4 Credits

Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course.
Prerequisite MTH 263 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Spring

- **Natural Science[2] 4 Credits**
- **General Transfer Elective[4] 3 Credits**

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 61-62

Notes and Additional Curriculum Options

[1] Take ONE of the following Humanities courses: Art 100, Art 101, ART 102, CST 130, CST 151, MUS 121, MUS 222, or MUS 226

[2] Consult with an advisor to take a natural science (with lab). Chosen science courses should align with desired transfer institution requirements.

[3] Take ONE of the following social science courses: ECO 201, ECO 202, GEO 210, GEO 220, PLS 135, PLS 140, PSY 200, SOC 200, SOC 211, SOC 268. See advisor to ensure chosen course aligns with transfer institution.

See advisor to enroll in SDV 195 for final semester.

[4] See advisor to enroll in elective courses that meet the program requirements of the university to which you are transferring.

Software Engineering, AA&S

Purpose

The Associate of Arts & Sciences degree programs are designed for students who plan to transfer to a four-year college or university to complete a baccalaureate degree program. The courses in this program are specifically selected for ease of transfer to most four-year colleges and universities. Following the prescribed coursework in this program will result in graduation with the Associate of Arts & Science degree (AA&S). Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study. This degree plan is closely aligned to local universities and colleges. Please see your advisor for specific guidelines.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.
7. Software Coding: Use predefined specifications to analyze, design and create software programs which comply with specific requirements.

Program Requirements

Students must meet the requirements for admission established by the college. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. MECC strongly recommends consulting with an academic advisor at the college in planning their program and selecting courses.

Transfer Note

This specialization is designed to aid students with transfer into the Software Engineering bachelor's degree program at UVA-Wise. Students should consult with any transferring university for appropriate course selection.

For Further Information, Contact:

Terri Lane
tlane@mecc.edu
276.523.9058

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 162 - Pre-Calculus II

3 Credits

Presents trigonometry, trigonometric applications including Law of Sines and Cosines and an introduction to conics.

Credit will not be awarded for both MTH 162: Precalculus II and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 with a grade of C or higher
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

- HLT/PE Health/Physical Education **1 Credits**

Second Year Fall

- ENG - English Survey **3 Credits**

PHY 201 - General College Physics I

4 Credits

Covers classical mechanics and thermodynamics. Includes kinematics, Newton's laws of motion, work, energy, momentum, rotational kinematics, dynamic and static equilibrium, elasticity, gravitation, fluids, simple harmonic motion, calorimetry, ideal gas law, and the laws of thermodynamics. Part I of II. This is a UCGS transfer course.
Prerequisite MTH 161 or MTH 167 with a grade of 'C' or higher
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

- Approved Social Science **3 Credits**

ITP 132 - C++ Programming I

3 Credits

Centers instruction in fundamentals of object-oriented programming and design using C++. Emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications.
Prerequisite ITP 100
Corequisite MTH 161
Lecture Hours 3
Note Typically Offered: Fall

MTH 263 - Calculus I

4 Credits

Presents concepts of limits, derivatives, differentiation of various types of functions and use of differentiation rules, application of differentiation, antiderivatives, integrals and applications of integration. This is a Passport and UCGS

transfer course.
Prerequisite MTH 167 or MTH 161/MTH 162 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Fall/Summer

Second Year Spring

- ENG 115 - Technical Writing **3 Credits**

MTH 264 - Calculus II

4 Credits

Continues the study of calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Features instruction for mathematical, physical and engineering science programs. This is a Passport Transfer course.
Prerequisite MTH 263 or equivalent with a grade of C or higher
Lecture Hours 4
Note Typically Offered: Spring

ITP 232 - C++ Programming II

3 Credits

Presents in-depth instruction of advanced object-oriented techniques for data structures using C++.
Prerequisite ITP 132
Lecture Hours 3
Note Typically Offered: Spring

PHY 202 - General College Physics II

4 Credits

Covers waves, electromagnetism, optics, and modern physics. Includes mechanical waves, sound, electrostatics, Ohm's law and DC circuits, magnetic forces and magnetic fields, electromagnetic induction, ray optics, wave optics, and selected topics of modern physics. Part II of II. This is a UCGS transfer course.
Prerequisite PHY 201 with a 'C' or higher and MTH 162 or MTH 167
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

SDV 195 - Transfer Education Capstone

1 Credits

A project-based course designed to help transfer students synthesize the knowledge, skills and abilities in problem solving they have acquired throughout their degree program; make connections between different disciplines; and, demonstrate the application of those skills in matriculation to a senior institution.
Lecture Hours 1
Note Typicall Offered: Fall/Spring/Summer

Total Program Credits: 64

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

[1]*All students pursuing an Associate of Arts and Sciences must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an assessment test.*

Uniform Certificate of General Studies, C

Purpose

The Uniform Certificate of General Studies - Transfer is designed as an intermediate step on the student's progress toward a two or four year degree. This certificate is awarded as recognition of completion of a core of specified requirements in the associate degree program. The associate degree is the gateway for transfer to a senior institution through one of the many articulation and guaranteed admission agreements currently available to MECC students. Students should consult with their advisors to ensure that they select general electives that best prepare them for the specific requirements of their intended transfer college or university programs of study.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Civic Engagement: Demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.
2. Critical Thinking: Locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.
3. Professional Readiness: Demonstrate skills important for successful transition into the workplace and/or pursuit of further education.
4. Quantitative Literacy: Calculate, interpret, and use numerical and quantitative information in a variety of settings.
5. Scientific Literacy: Recognize and know how to use the scientific method, and to evaluate empirical information.
6. Written Communication: Express themselves effectively in a variety of written forms.

Program Requirements

Students must meet the requirements for admission established by the college. Students should have English and Mathematics skills assessed. Depending on specific circumstances, students may need to complete developmental coursework as they begin this course of study. Students are encouraged to check the mathematics requirements of the four-year college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives.

For Further Information, Contact:

Dr. Ted Booth, Dean of Arts and Sciences
tbooth@mecc.edu
276.523.9038

Program of Study

FIRST SEMESTER

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Art/Mus Elective

Take ONE of the following:

ART 101 - History of Art: Prehistoric to Gothic

3 Credits

Surveys the history and interpretation of architecture, painting and sculpture from the prehistoric era through the Gothic. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ART 102 - History of Art: Renaissance to Modern

Corequisite Surveys the history and interpretation of architecture, painting and sculpture from the Renaissance through the modern era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Check Course Availability

CST 130 - Introduction to the Theatre

3 Credits

Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall

CST 151 - Film Appreciation I

3 Credits

Provides students with a critical understanding of film through the discussion and viewing of motion pictures with emphasis upon the study of film history and the forms and functions of film. Students will develop skills to analyze the shared social, cultural and historical influences of films and their contexts. Part I of II. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Check Course Availability

MUS 121 - Music in Society

3 Credits

Explores the language of music through an introduction to basic elements, forms and styles across time. Acquaints students with composers' lives and influential creative individualities, discovering representative works and milestones in western society. Develops techniques for listening analytically and critically. Reviews historical development and significance of art music within the context of evolving societal structures. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Math

Non-STEM fields choose

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

or

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

STEM fields choose

MTH 161 - Pre-Calculus I

3 Credits

Presents topics in power, polynomial, rational, exponential, and logarithmic functions, and systems of equations and inequalities. Credit will not be awarded for both MTH 161: Precalculus I and MTH 167: Precalculus with Trigonometry or equivalent. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Natural Science

Take one of the following:

BIO 101 - General Biology I

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS Transfer course. Credit towards graduation cannot be awarded for both BIO 101 and BIO 106.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

CHM 111 - General Chemistry I

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 and Readiness for ENG 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

PHY 201 - General College Physics I

4 Credits

Covers classical mechanics and thermodynamics. Includes kinematics, Newton's laws of motion, work, energy, momentum, rotational kinematics, dynamic and static equilibrium, elasticity, gravitation, fluids, simple harmonic motion, calorimetry, ideal gas law, and the laws of thermodynamics. Part I of II. This is a UCGS transfer course.
Prerequisite MTH 161 or MTH 167 with a grade of 'C' or higher
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

History

Take ONE of the following:

HIS 101 - Western Civilizations Pre-1600 CE

3 Credits

Examines the development of western civilization from ancient times to 1600 CE. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIS 102 - Western Civilizations Post-1600 CE

3 Credits

Examines the development of western civilization from 1600 CE to the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIS 111 - World Civilizations Pre-1500CE

3 Credits

Surveys the history of Asia, Africa, the Americas, and Europe from antiquity to approximately 1500. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIS 112 - World Civilization Post-1500CE

3 Credits

Surveys the history of Asia, Africa, Europe, and the Americas from approximately 1500 CE through the present. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIS 121 - United States History to 1877

3 Credits

Introduces the history of the United States from its origins to 1877. Includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIS 122 - United States History Since 1865

3 Credits

Introduces the history of the United States from 1865 to present. Includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SECOND SEMESTER

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Transfer Elective - See advisor for approved courses. It is recommended to take a second natural science, math, or history course. **3-4 Credits**
- Transfer Elective - See advisor for approved courses. It is recommended to take a second science, math, or history course. **3-4 Credits**

Humanities Elective

Take ONE of the following:

HUM 202 - Modern Humanities

3 Credits

Examines the values and expression of ideas of selected western and non-western cultures from the 1300s until 1900s, integrating the visual arts, literature, religion, music and philosophy within the context of history. The assignments in this course require college-level reading, analysis of scholarly studies, and coherent communication through properly cited and formatted written reports. This is a Passport and UCGS transfer course.

Lecture Hours 3
Note Typically Offered: Spring

HUM 256 - Comparative Mythology

3 Credits

Studies the cultural expressions of mythology. Considers selected mythologies representing diverse global culture, with emphasis on parallels and divergences in structure, purpose, and representation in literature and the arts. The assignments in this course require college-level reading, analysis of scholarly studies, and coherent communication through properly cited and formatted written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Spring

HUM 259 - The Greek and Roman Tradition

3 Credits

Explores the significance of Greek and Roman cultures on the individual and society, expressed prominently from the Classical Age in Athens to its survival during Roman times. Examines the key contributions that the Greeks and Romans have imparted upon storytelling, theater, philosophy, civics, political morphology, and the arts and the impact they have in the modern world. The assignments in this course require college-level reading, analysis of scholarly studies, and coherent communication through properly cited and formatted written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Spring

PHI 111 - Logic I

3 Credits

Introduces inductive and deductive reasoning, with an emphasis on common errors and fallacies. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Check Course Availability

PHI 220 - Ethics and Society

3 Credits

Provides a systematic study of representative ethical concepts and theories and discusses their application to concrete moral dilemmas and social issues and problems. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

REL 100 - Introduction to the Study of Religion

3 Credits

Explores the idea of religion (as a general category), how to study religion in an academic context, and common

elements across most religions such as beliefs, practices, values, community, spiritual experience, symbolism, and narrative. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

REL 200 - Survey of the Old Testament

3 Credits

Surveys books of the Old Testament, with emphasis on prophetic historical books. Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings.
Lecture Hours 3
Note Typically Offered: Fall

REL 210 - Survey of the New Testament

3 Credits

Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting.
Lecture Hours 3
Note Typically Offered: Spring

REL 230 - Religions of the World

3 Credits

Introduces the major religions of the world: Judaism, Christianity, Islam, Hinduism, and Buddhism. Focuses on origins, history, basic beliefs, values, ethics, and practices. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

REL 240 - Religions in the U.S.

3 Credits

Surveys various manifestations of religion in the American experience. Emphasizes concepts, problems, and issues of religious diversity and character of U.S. religious life. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall

Social Science Elective

Take ONE of the following:

ECO 201 - Principles of Macroeconomics

3 Credits

Presents the fundamental macroeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, national economic growth, inflation, recession, unemployment, fiscal and monetary policies,

and international trade. Develops an appreciation of how these economic concepts apply to consumer, business, and government decisions, and their effect on the overall economy. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ECO 202 - Principles of Microeconomics

3 Credits

Presents the fundamental microeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, elasticities, marginal revenues and costs, profits, production and distribution. Develops an appreciation of how these economic concepts apply to consumer and business decisions, and their effect on the individual. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

GEO 210 - People and the Land: Intro to Cultural Geography

3 Credits

Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and non-material culture, language, race and ethnicity, religion, politics, and economic activities. Introduces the student to types and uses of maps. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

PLS 135 - U. S. Government & Politics

3 Credits

Teaches the political structure, processes, institutions, and policymaking of the US national government. Focuses on the three branches of government, their interrelationships, and how they shape policy. Addresses federalism; civil liberties and civil rights; political socialization and participation; public opinion, the media; interest groups; political parties; elections; and policymaking. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall

PSY 200 - Principles of Psychology

3 Credits

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SOC 200 - Introduction to Sociology

3 Credits

Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SOC 211 - Cultural Anthropology

3 Credits

Examines the origins, development, research, diversification and evolution of human cultures. Includes exposure to the variability of both Western and Non-Western aspects of culture. Provides an introduction to the nature of culture and its relationship to various social institutions and societies. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SOC 268 - Social Problems

3 Credits

Introduces the fundamental concepts underlying social problems construction with attention to how these problems are defined, understood and arbitrated. Examines a variety of topics such as researching social problems and policymaking. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

Total Program Credits: 32-34

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Requirements of four-year institutions may vary. Students should consult an academic advisor to select courses that will satisfy baccalaureate major requirements. In addition, they should confirm with the college or university to which they plan to transfer that they will receive credit at the four-year institution. For selection of all elective courses, see the list on the College Transfer Electives page.

Allied Health (Career Pathway)

Administrative Support Technology - Medical Office Specialist, AAS

Purpose

The Medical Office Specialist program is designed to prepare individuals for administrative support positions in medical offices. Individuals currently employed in medical office positions will also benefit from the program. The program includes courses that provide the knowledge and skills necessary for effective job performance in entry-level medical office administrative support positions.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Written Communications: Students will apply effective writing and formatting techniques to the composition of email messages, interoffice memos, routine letters, goodwill messages, persuasive messages, negative messages, informal reports, proposals, and formal reports.
2. Scientific Reasoning: Students will demonstrate proficiency in recording, analyzing, and reporting data using computerized tools and methods.
3. Critical Thinking: Students will be able to select, analyze, interpret and evaluate a range of source materials.
4. Quantitative Reasoning: Students will be able to explain information presented in graphs, diagrams, and tables.
5. Information Literacy: Students will be able to recognize when information is needed and have the ability to locate, evaluate, and effectively use the needed information.

Employment Opportunities

Medical Office Specialists generally work in hospitals, clinics, and private practice offices, assisting with billing and maintaining patient accounts, and performing general office and routine administrative duties. These professionals exhibit expertise in professional conduct, telephone etiquette, computer applications, filing and records management, patient scheduling, and medical office management.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jane Jones
jjones@mecc.edu
276.523.9057

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

AST 102 - Keyboarding II

3 Credits

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy.
Prerequisite AST 101
Lecture Hours 3
Note Typically Offered: Fall/Summer

AST 107 - Editing/Proofreading Skills

3 Credits

Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 150 - Health Records Management

3 Credits

Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes

legal and regulatory guidelines for the control and use of health information data.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 113 - Medical Terminology & Disease Process I

3 Credits

Includes the study of prefixes, suffixes, stem words, and technical terms; puts emphasis on the causes and treatment of selected disease processes. Part I of II.
Prerequisite EDE10 and Program/Plan 152, 285, 221-286-01 or 298-02.
Lecture Hours 3
Note Typically Offered: Fall

HIM 130 - Healthcare Information Systems

3 Credits

Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications. Focuses on microcomputer applications and information systems in the Healthcare environment. Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals.
Lecture Hours 3
Note Typically Offered: Fall/Spring

Eligible for HDM HIPPA Certification

First Year Spring

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

AST 271 - Medical Office Procedures I

3 Credits

Covers medical office procedures, records management, preparation of medical reports, and other medical documents.
Prerequisite AST 102 or equivalent
Lecture Hours 3
Note Typically Offered: Spring/Summer

HIM 114 - Medical Terminology & Disease Process II

3 Credits

Continues the study of prefixes, suffixes, stem words, and technical term; puts emphasis on the causes and treatment of selected disease processes. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Spring

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

HIM 226 - Legal Aspects of Health Record Documentation

2 Credits

Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient's health records.
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HIM 143 - Electronic Billing in Med Prac

3 Credits

Introduces principles of administrative practice management. Examines patient scheduling, records management, financial systems and other systems/procedures. Focuses on the development of organizations and decision making skills utilized by the practice manager.
Lecture Hours 3
Note Typically Offered: Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for MOS Word Core Certification

Eligible for National Healthcareer Association Certified Electronic Health Records Specialist Certification

Second Year Fall

ACC 115 - Applied Accounting

3 Credits

Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management.
Lecture Hours 3
Note Typically Offered: Fall

AST 205 - Business Communications

3 Credits

Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials.
Lecture Hours 3
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

AST 243 - Office Administration I

3 Credits

Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment.
Prerequisite AST 101, AST 141, and EDE 10
Lecture Hours 3
Note Typically Offered: Fall

- Humanities Elective **3 Credits**
- Social Science Elective **3 Credits**

Second Year Spring

AST 244 - Office Administration II

3 Credits

Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory role of the office professional. Includes travel and meeting planning, office budgeting and financial procedures, international issues, and career development.
Prerequisite AST 243 or equivalent
Lecture Hours 3
Note Typically Offered: Spring

AST 290 - Coordinated Internship

3 Credits

Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college.
Prerequisite Readiness for ENG 111
Lecture Hours 3
Note Credit/practice ratio maximum 1-5. Variable hours.

Typically Offered: Fall/Spring/Summer

ITE 140 - Spreadsheeting for Business

3 Credits

Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools.
Lecture Hours 3
Note Typically Offered: Spring

MTH 132 - Business Mathematics

3 Credits

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities or Social Science Elective **3 Credits**

Eligible for Career Readiness Certifications While Enrolled in AST 290

Total Program Credits: 66

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Clinical Research Coordinator, CSC

Purpose

The Clinical Research Coordinator Certificate is designed to provide entry-level specialization in the clinical trial operations. The Clinical Research Coordinator supports, facilitates and coordinates clinical trial activities and plays a critical role in managing the clinical trial. The curriculum provides introduction to clinical trials in phases 1-5, obtaining informed consent, educating the patient on the clinical trial process, risks and benefits while ensuring Good Clinical Practice Standards are followed. The Clinical Research Coordinator reports to the Principle Investigator and the Institutional Review Board and manages the recruitment and retention of objects for clinical trial while ensuring vulnerable subjects are protected from risk. Clinical Trials consist of research for pharmacologics, investigational devices, biologics and social/behavior studies. Students will also learn the sources of data collection, source documents and case forms used in the clinical research process, as well as privacy, security and confidentiality protocols.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Explain the roles of the clinical research team, their specific roles and legal requirements.
2. Examine the Drug Development Process regarding the definitions, regulations and process for investigational new drug (IND) and new drug applications (NDA).
3. Analyze the drug, device and biologic development process, including protocol development, case form report development, feasibility of the clinical trial and developing a budget for clinical study.
4. Examine and evaluate the use of Code of Federal Regulations in the clinical trial process.
5. Explain adverse and severe drug reactions and adverse events, evaluate the process of the Institutional Review Board notification of adverse events.
6. Discuss procedural and management issues regarding utilization and disposition of informed consent and source documents.
7. Develop recruitment plans using healthcare marketing strategies and retention plans for clinical trials using informed consent and the community of interest.
8. Examine research ethics through therapeutic and disease misconceptions, understanding bias and randomization.
9. Apply the concepts of Good Clinical Practice and understand the International Conference on Harmonization.

Employment Opportunities

Employers are increasingly looking for clinical trials staff with a developed set of core competencies such as data classification, health informatics and healthcare statistics.

Further Information, Contact:

Nora Blankenbecler, Program Director
nblankenbecler@mecc.edu
276.523.9054

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

HIM 260 - Pharmacology for Health Information Technoloyg

3 Credits

Emphasizes general pharmacology for Health Information professionals; covers general principles of drug actions/reactions, major drug classes, specific agents within each class, and routine mathematical calculation needed to determine desired dosages.
Lecture Hours 3
Note Typically Offered: Fall

HIT 193 - Studies In: Investigational Products and Device Regulation

3 Credits

Online Emphasis on Monitoring and auditing process, IRB management of trials, data management.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Summer

AST 193 - Studies in Excel for Healthcare Professionals

3 Credits

Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering.
Lecture Hours 3
Note Typically Offered: Fall

HIT 229 - Performance Improvement and Data Usage in Health Care

3 Credits

Explores the history and development of the performance improvement process. Addresses licensure/accreditation, utilization management, risk management, process management, and the medical staff credentialing and privileging. Covers clinical communication and health information exchange. Covers approaches to assess patient safety, implementing quality management and reporting using electronic system
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

First Year Spring

HIM 150 - Health Records Management

3 Credits

Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIT 298 - Seminar & Project

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 3
Lab hours 0

HIT 195 - Topics in: Good Clinical Practice an Regulatory Compliance

3 Credits

Online. Applies Good Clinical Practice Protocols. Responsibility to the Code of Federal Regulations and where to obtain information and guidance.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring (2nd 8 Weeks)

HIT 299 - Supervised Study: Clinical Research Coordinator and Clinical Research Monitor Concepts

3 Credits

Emphasis on: Ethical and participant Safety Considerations and Study and Sight Management. Case reporting protocol; Research ethics/unanticipated problems involving risks; Monitoring, audits and inspections.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring (Online: 1st 8 Weeks)

Total Program Credits: 24

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

This career studies certificate is designed for students who have existing training and/or experience in a healthcare field and/or medical coding. Students should consult with an advisor for details.

Health Information Management, AAS

Purpose

The Health Information Management (HIM) degree provides students the opportunity to gain knowledge and skills required to perform a variety of specialized duties in a non-clinical healthcare setting. Graduates may seek positions as medical records technicians, coders, health information specialists, and similar designations.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply Diagnosis and Procedure codes according to current professional classification systems guidelines.
2. Identify complete health record according to organizational policies, external regulations and professional standards.
3. Analyze and interpret data and data sources for patient care (management, billing, reports, registries and other databases)
4. Use current concepts and government regulations to assign policies for data integrity and data exchange standards.
5. Apply healthcare legal terminology to identify the use of legal document, consents for treatment, retention and release of information, privacy and patient rights.
6. Apply confidentiality, privacy and security measures and policies and procedures for internal and external of and exchange to protect electronic health information.
7. Use payment methodologies and systems such as capitation, Prospective Payment Systems, case mix and health insurance policies to evaluate the revenue cycle management process.
8. Use billing processes and procedures such as claims, electronic data exchange, advanced beneficiary notice, charge master, coding and bill reconciliation process to support the reimbursement cycle.
9. Analyze managed care and accountable care organization strategies and their impact to the delivery of care setting.
10. Obtain Certified Coding Associate (CCA) through AHIMA (American Health Information Management Association), and/or Certified Professional Coder (CPC) through AAPC (American Association of Professional Coders). .

Employment Opportunities

HIM graduates will be able to work at acute care hospitals, clinics, behavioral healthcare facilities, hospice, home care, healthcare government agencies, EHR vendors, insurance companies, and Managed Care Organizations. Opportunities for certification include Certified Professional Coder (CPC) and Certified Coding Associate (CCA).

Program Requirements

Students entering the HIM program must meet the College's general admissions requirements, as well as program specific admission requirements which include:

- Completion of the Health Information Management Application for Admission packet, including a letter of intent and criminal background check.
- Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required.
- Students may receive college credit for verified on-the-job experience.
- Courses taken out of suggested sequence must have the approval of the program director.

Clinical Affiliation Agreement for HIM Internship

The Health Information Management Program has clinical affiliation agreements with clinical agencies to ensure student safety. If students cannot comply with these contractual requirements, they will not be able to participate in clinical experiences and will be asked to withdraw from the program.

General guidelines follow:

- Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice, except in an emergency.
- Published policies of the clinical agency must be followed. Each student must successfully complete an orientation program prior to participating in activities at any clinical facility.
- Clinical facilities require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
- Immunizations must be current. A flu and CoVID vaccine may be required.
- Students release clinical agencies, its agents and employees from any liability for personal injury or death, or damage to personal property arising from the use of the clinical agency's facilities.
- Proof of HIPAA and CPR Certification must be provided.
- Clinical facilities require a criminal background check and drug screen clearance as a condition for student placement.

For Further Information, Contact:

Nora Blankenbecler, Program Director
nblankenbecler@mecc.edu
276.523.9054

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

NAS 171 - Human Anatomy & Physiology I

4 Credits

Presents the human organ systems and their functions as they relate to allied health science. Part I of II. This course applies to career/technical education (CTE) programs. BIO 141/142 and BIO 231/232 serve both transfer and CTE programs.

Prerequisite Must be Admitted to Plan 181, 152 or 285.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIT 130 - Introduction to Computers in Health Care

3 Credits

Introduces students to computers in health care. Provides a basic overview of computer architecture, common software applications and their use in health care, electronic data management, adoption of the electronic health record (EHR), and privacy and security.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

HIM 113 - Medical Terminology & Disease Process I

3 Credits

Includes the study of prefixes, suffixes, stem words, and technical terms; puts emphasis on the causes and treatment of selected disease processes. Part I of II.
Prerequisite EDE10 and Program/Plan 152, 285, 221-286-01 or 298-02.
Lecture Hours 3
Note Typically Offered: Fall

AST 193 - Studies in Excel for Healthcare Professionals

3 Credits

Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

HIM 114 - Medical Terminology & Disease Process II

3 Credits

Continues the study of prefixes, suffixes, stem words, and technical term; puts emphasis on the causes and treatment of selected disease processes. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Spring

HIM 150 - Health Records Management

3 Credits

Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 265 - Facility Based Medical Coding

3 Credits

Students will learn to accurately assign CPT, ICD-9 Level 1, 2 and 3, in addition to HCPCS codes for inpatient, outpatient facility, and ambulatory surgical centers according to guidelines and rules set forth by the cooperating parties. Students will apply the theory and regulations concerning prospective payment systems (in and out of the facility setting) APC and DRG assignment.
Lecture Hours 3
Note Typically Offered: Spring

HIM 253 - Health Records Coding

4 Credits

Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered.

Lecture Hours 4
Lab hours 0
Note Typically Offered: Spring

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible for Career Readiness Certifications

Second Year Fall

HIM 149 - Introduction to Medical Practice Management

2 Credits

Introduces principles of administrative practice management. Examines patient scheduling, records management, financial systems and other systems/procedures. Focuses on the development of organizations and decision making skills utilized by the practice manager.
Lecture Hours 2
Note Typically Offered: Check Course Availability

HIM 151 - Reimbursement Issues in Medical Practice Management

2 Credits

Introduces major reimbursement systems in the United States. Focuses on prospective payment systems, managed care, and documentation necessary for appropriate reimbursement. Emphasizes management of practice to avoid fraud.
Lecture Hours 2
Note Typically Offered: Check Course Availability

HIM 249 - Supervision and Management Practices

3 Credits

Introduces supervision and management principles with emphasis on the application of these principles in the health information setting.
Lecture Hours 3
Note Typically Offered: Fall

HIM 254 - Advanced Coding and Reimbursement

4 Credits

Focuses on the applications and evaluation of advanced coding skills through practical exercises using actual healthcare data; while examining the components of DRGs, APCs and APGs and other prospective payment in the healthcare environment. Utilizes current coding standards in identifying payment methodologies, revenue cycle management and reimbursement.
Prerequisite HIM 253
Lecture Hours 4
Note Typically Offered: Fall

HIM 251 - Clinical Practice I

3 Credits

Prepares the Health Information Technology Student to perform all functions commonly allocated to health record services. Gives practice in various settings under the supervision of a clinical practice supervisor. Part I of II.
Lab hours 6
Note Typically Offered: Fall

- Humanities Elective **3 Credits**

Eligible for American Professional Coding Certification (AAPC) Certified Professional Coder (CPC)

Second Year Spring

HIM 226 - Legal Aspects of Health Record Documentation

2 Credits

Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient's health records.
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HIM 229 - Performance Improvement in Health Care Settings

2 Credits

Focuses on concepts of facility wide performance improvement, resource management and risk management. Applies tools for data collection and analysis.
Lecture Hours 1
Lab hours 2
Note Typically Offered: Check Course Availability

HIM 233 - Electronic Health Records Management

3 Credits

Studies new trends in management and processing of health information with emphasis on the electronic health record (EHR). Covers the definition, benefits, standards, functionality, confidentiality and security, and impact of the EHR in

the healthcare environment. Explores implementation of the EHR including infrastructure required, project management techniques, information technology systems, workflow processes and redesign in various health care settings. Discusses legal issues created by implementation of the EHR.
Prerequisite HIM 130 and HIM 230
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIM 290 - Coordinated Internship

2 Credits

The Coordinated Internship is designed to provide the HIM student with an opportunity to experience a supervised internship in Health Information Management with selected Health Information Management related functions coordinated by the student, Program Director and the internship host for a minimum of 40 hour. The 40 hour internship meets the CAHIIM requirement for Professional Practice Experience for Internship. The purpose of the internship is to provide a real world HIM experience for the student not currently working in the HIM field. Should the student work in HIM, the internship cannot be completed in your current job role. Accommodations must be provided in another job function(s). For example, if you are currently working in Patient Registration, your internship must be an area such as cancer registry or release of information or a combination of roles and/or functions. The HIM 290 Coordinated Internship also consist RHIT Domain I-VI Case Studies and RHIT Test Prep. In addition, there are 3 modules of resume building, cover letter and interviewing exercises to assist the student in obtaining an entry level position in Health Information Management.
Note Typically Offered: Spring

HIM 260 - Pharmacology for Health Information Technoloyg

3 Credits

Emphasizes general pharmacology for Health Information professionals; covers general principles of drug actions/reactions, major drug classes, specific agents within each class, and routine mathematical calculation needed to determine desired dosages.
Lecture Hours 3
Note Typically Offered: Fall

MTH 155 - Statistical Reasoning

3 Credits

Presents elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

- Social Science Elective **3 Credits**

Eligible for American Health Information Management Association (AHIMA) Certified Coding Associate (CCA)

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

The Health Information Management accreditor of Mountain Empire Community College is the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The College's accreditation for the Associate of Applied Science degree in Health Information Management has been reaffirmed through 2027.

Health Information Technology Analyst, CSC

Purpose

Big data analytics is transforming the way many organizations do business in dozens of industries. But the impact is most profound in the field of medicine, where an advanced health information techology analyst has the potential to revolutionize patient care.

The Health Information Technology Analyst provides students the opportunity to gain knowledge and skills required to perform a variety of specialized duties in a non-clinical healthcare setting in healthcare IT, Health Information Management and Clinical Research. Graduates may seek positions as health IT data analyst, data, healthcare data reporting analyst, healthcare business intelligence analyst, clinical decision support analyst, quality improvement analyst, and similar designations.

Health analytics have made a tremendous impact in the following segments of healthcare:

- Advancements in telemedicine
- Enhanced patient engagement
- Wearables tha provide real-time alerts
- Disease prevention/population health
- Improving/refining treatment standards
- Potential to help cure diseases
- Improved staffing efficiency
- Prevention of opiod abuse

Student Learning Outcomes

1. Compiling and organizing health care data
2. Analyzing data to assist in delivering optimal health care management and decision making
3. Collecting and organizing health care data to achieve administrative needs and goals
4. Demonstrated knowledge of data storage and data sharing methods
5. Inspecting data to find patterns and trends
6. Evaluating health care business operations based on data sources
7. Utilizing different data sources for analyses
8. Converting data into usable information that is easy to understand
9. Developing reports and presentations
10. Communicating analytic insights to stateholders

Program Requirements

Students entering the Health IT Analyst program must meet the college's general admissions requirements, as well as program specific admission requirements. Program specific admission requirements include:

- Completion of the Health IT Analyst Application for Admission packet, including a letter of intent and criminal background check and drug screening.
- It is strongly advised students have a professional background in Allied Health.
- Students should have English and Mathematics skills assessed. Deficiencies in these areas may be corrected by completeing the appropriate developmental studies courses.
- Students may receive college credit for verified on-the-job experince.
- Courses taken out of suggested sequence must have the approval of the program advisor.

Clinical Affiliation Agreement for HIM Internship

The Health Information Management Program has clinical affiliation agreements with clinical agencies to ensure student success and safety.

- Published policies of the clinical agency must be followed.
- Each student must successfully complete an orientation program prior to participating in activities at any clinical facility.
- Each student must complete all required documents for internship for MECC and the clinical host site.
- Clinical facilities require all students to have the ability to perform the physical demands required for internship.
- Immunizations must be current. A flu vaccine and CoVID-19 vaccine may be required.
- Students release clinical agencies, its agents and employees from any libility for personal injury or death, or damage to personal property arising from the use of the clinical agency's facilities.
- Clinical facilities require a criminal background check and drug screen clearance as a condition for student placement.

Note: If students cannot comply with these contractual requirements, they will not be able to participate in clinical experiences.

Job Outlook

Health Informatics and Healthcare Analytics are fast growing fields and the demand for leaders with data analytics expertice will continue to grow. The Bureau of Labor Statistics estimates job growth at 19%, faster than average through 2026 for fields such as health informatics and data analytics. Job growth in medical and health services management fields are expected to grow by over 17% over the next few years. Population health changes and increased use of health information exchange ensure the job outlook for health information and health data analytics remain strong for many years to come.

For Further Information, Contact:

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Jane Jones, Dean

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Progam of Study

First Year Fall

ITD 136 - Database Management Software

3 Credits

Covers an introduction to relational database theory and how to administer and query databases using multiple commercial database systems.
Lecture Hours 3
Note Typically Offered: Check Course Availability

HIT 132 - Health-IT Infrastructure Development

3 Credits

Introduces the various systems life cycles. Covers processes in the design of electronic health information systems, operational management, and medico legal issues facing health care.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Check Course Availability

AST 193 - Studies in Excel for Healthcare Professionals

3 Credits

Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering.
Lecture Hours 3
Note Typically Offered: Fall

ITP 170 - Project Management

3 Credits

Introduces the concepts of project management as defined by the Project Management Institute, the accreditation body for project management.
Lecture Hours 3
Note Typically Offered: Check Course Availability

First Year Spring

HIT 235 - Emerging Technologies in Health IT

3 Credits

Provides an overview of various emerging technologies. Explores how health care technologies are used to treat patients, promote safety, and improve patient care. Discusses legal issues created by implementation of the electronic health record.
Lecture Hours 3
Note Typically Offered: Check Course Availability

ITD 256 - Advanced Database Management

3 Credits

Focuses in-depth instruction in the handling of critical tasks of planning and implementing large databases. Includes an introduction to concepts of advanced data warehousing and database configuration.
Lecture Hours 3
Note Typically Offered: Check Course Availability

HIT 230 - Computer Applications in Health Care

3 Credits

Covers systems planning, acquisition, implementation, technology support, strategic planning and governance; as well as threats to security of health information. Covers the value and organization of health care information systems (IS) and the role of the Information Technology (IT) Department.
Lecture Hours 3
Note Typically Offered: Check Course Availability

ITD 298 - Seminar & Project

3 Credits

Online: Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

Total Program Credits: 24

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Medical Office Coding and Procedures, C

Purpose

The Medical Office Coding & Procedures Certificate is designed to provide entry-level skills for individuals preparing for employment in the healthcare industry as medical coders, medical office assistants, medical secretaries, insurance billing specialists, or medical records technicians. The curriculum provides basics in diagnostic/procedural and medical terminology and coding, medical office procedures and the reporting of data to third party payers, insurance companies and government agencies for reimbursement.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply Diagnosis and Procedure codes according to current professional classification systems guidelines.
2. Identify complete health record according to organizational policies, external regulations and professional standards.
3. Analyze and interpret data and data sources for patient care (management, billing, reports, registries and other databases)
4. Analyze managed care and accountable care strategies and their impact to the delivery of care.
5. Obtain Certified Professional Coder (CPC) through AAPC (American Association of Professional Coders).

Employment Opportunities

Students will have the opportunity to gain the knowledge and skills required to perform a variety of specialized duties with competence and understanding. The Medical Office Coding & Procedures certificate will prepare students for a wide range of entrylevel positions in healthcare facilities such as clinics, private medical practices, and hospitals.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Nora Blankenbecler
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276.523.9054

Jane Jones, Dean
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276.523.9057

Program of Study

First Year Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

AST 102 - Keyboarding II

3 Credits

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy.
Prerequisite AST 101
Lecture Hours 3
Note Typically Offered: Fall/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIM 113 - Medical Terminology & Disease Process I

3 Credits

Includes the study of prefixes, suffixes, stem words, and technical terms; puts emphasis on the causes and treatment of selected disease processes. Part I of II.
Prerequisite EDE10 and Program/Plan 152, 285, 221-286-01 or 298-02.
Lecture Hours 3
Note Typically Offered: Fall

HIM 130 - Healthcare Information Systems

3 Credits

Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications. Focuses on microcomputer applications and information systems in the Healthcare environment. Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 150 - Health Records Management

3 Credits

Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data.
Lecture Hours 3
Note Typically Offered: Fall/Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste,

spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HIM 226 - Legal Aspects of Health Record Documentation

2 Credits

Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient's health records.
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HIM 114 - Medical Terminology & Disease Process II

3 Credits

Continues the study of prefixes, suffixes, stem words, and technical term; puts emphasis on the causes and treatment of selected disease processes. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Spring

HIM 253 - Health Records Coding

4 Credits

Examines the development of coding classification systems. Introduces ICD-9-CM coding classification system, its format and conventions. Stresses basic coding steps and guidelines according to body systems. Provides actual coding exercises in relation to each system covered.
Lecture Hours 4
Lab hours 0
Note Typically Offered: Spring

HIM 265 - Facility Based Medical Coding

3 Credits

Students will learn to accurately assign CPT, ICD-9 Level 1, 2 and 3, in addition to HCPCS codes for inpatient, outpatient facility, and ambulatory surgical centers according to guidelines and rules set forth by the cooperating parties. Students will apply the theory and regulations concerning prospective payment systems (in and out of the facility setting) APC and DRG assignment.
Lecture Hours 3
Note Typically Offered: Spring

Eligible for Microsoft Office Word Core Certification upon Completion of AST 141

Second Year Fall

HIM 149 - Introduction to Medical Practice Management

2 Credits

Introduces principles of administrative practice management. Examines patient scheduling, records management, financial systems and other systems/procedures. Focuses on the development of organizations and decision making skills utilized by the practice manager.
Lecture Hours 2
Note Typically Offered: Check Course Availability

HIM 151 - Reimbursement Issues in Medical Practice Management

2 Credits

Introduces major reimbursement systems in the United States. Focuses on prospective payment systems, managed care, and documentation necessary for appropriate reimbursement. Emphasizes management of practice to avoid fraud.
Lecture Hours 2
Note Typically Offered: Check Course Availability

HIM 254 - Advanced Coding and Reimbursement

4 Credits

Focuses on the applications and evaluation of advanced coding skills through practical exercises using actual healthcare data; while examining the components of DRGs, APCs and APGs and other prospective payment in the healthcare environment. Utilizes current coding standards in identifying payment methodologies, revenue cycle management and reimbursement.
Prerequisite HIM 253
Lecture Hours 4
Note Typically Offered: Fall

MTH 132 - Business Mathematics

3 Credits

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

NAS 171 - Human Anatomy & Physiology I

4 Credits

Presents the human organ systems and their functions as they relate to allied health science. Part I of II. This course applies to career/technical education (CTE) programs. BIO 141/142 and BIO 231/232 serve both transfer and CTE programs.
Prerequisite Must be Admitted to Plan 181, 152 or 285.
Lecture Hours 3

Lab hours 3
Note Typically Offered: Fall/Spring

- Social Science or Humanities Elective **3 Credits**

Eligible for CPC (Certified Professional Coder), CCA (Certified Coding Associate), and CBCS (Certified Billing and Coding Specialist) Exams upon Completion of HIM 253 and HIM 254

Total Program Credits: 52

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Medical Receptionist, CSC

Purpose

The Medical Receptionist Career Studies Certificate prepares individuals for entry-level responsibilities in the healthcare environment. Emphasis is placed on developing skills in basic document preparation - memos, letters, reports; creating and using spreadsheets, database reports, forms and queries, and presentations to be used in a healthcare setting. Using patient accounting software for patient record creation/maintenance, scheduling patients, and contemporary medical office procedures. Refine editing and proofreading skills.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate medical office procedures to include preparation of medical documents, records management, and patient scheduling.
2. Develop proficiency in basic creation and use of spreadsheets, database reports, presentations, and word processing document used in the medical environment.

Employment Opportunities

The Medical Receptionist Career Studies Certificate prepares students for entry-level support positions in hospitals, clinics, and private practice offices.

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276.523.9057

Program of Study

First Year Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

AST 102 - Keyboarding II

3 Credits

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy.
Prerequisite AST 101
Lecture Hours 3
Note Typically Offered: Fall/Summer

AST 107 - Editing/Proofreading Skills

3 Credits

Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 150 - Health Records Management

3 Credits

Presents documentation format and content of the medical record relevant to the coding function. Introduces application of standard techniques for filing, maintenance, and acquisition of health information. Examines the processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services. Includes legal and regulatory guidelines for the control and use of health information data.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HIM 113 - Medical Terminology & Disease Process I

3 Credits

Includes the study of prefixes, suffixes, stem words, and technical terms; puts emphasis on the causes and treatment of selected disease processes. Part I of II.
Prerequisite EDE10 and Program/Plan 152, 285, 221-286-01 or 298-02.
Lecture Hours 3
Note Typically Offered: Fall

HIM 130 - Healthcare Information Systems

3 Credits

Teaches basic concepts of microcomputer software (to include operating systems, word processing, spreadsheets, and database applications. Focuses on microcomputer applications and information systems in the Healthcare environment. Provides a working introduction to electronic health information systems for allied health, teaching students how the adoption of electronic health records affects them as future healthcare professionals.
Lecture Hours 3
Note Typically Offered: Fall/Spring

Eligible for HDM HIPAA Certification

Total Program Credits: 17

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Medical Records Technician, CSC

Purpose

This career studies certificate prepares individuals for entry-level responsibilities in the medical records/healthcare environment. Emphasis is placed on developing skills in accurately compiling and maintaining medical records of patients, reviewing medical records for completeness, using patient accounting and application software.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Understand the definition, benefits, standards, functionality, confidentiality and security, and impact of the electronic health record (EHR) in the healthcare environment.
2. Understand the basic concepts of computer software to include operating systems, word processing, spreadsheets, database, and presentation software applications as they are used in the healthcare environment.

Employment Opportunities

Medical Records Technicians generally work in entry-level support positions in hospitals, clinics, and private practice offices.

For Further Information, Contact:

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Sabrina Ward
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Jane Jones, Dean
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276.523.9057

Program of Study

First Year Fall

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

AST 271 - Medical Office Procedures I

3 Credits

Covers medical office procedures, records management, preparation of medical reports, and other medical documents.
Prerequisite AST 102 or equivalent
Lecture Hours 3
Note Typically Offered: Spring/Summer

HIM 114 - Medical Terminology & Disease Process II

3 Credits

Continues the study of prefixes, suffixes, stem words, and technical term; puts emphasis on the causes and treatment of selected disease processes. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Spring

HIM 226 - Legal Aspects of Health Record Documentation

2 Credits

Presents the legal requirements associated with health record documentation. Emphasizes the policies and procedures concerning the protection of the confidentiality of patient's health records.
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HIM 143 - Electronic Billing in Med Prac

3 Credits

Introduces principles of administrative practice management. Examines patient scheduling, records management, financial systems and other systems/procedures. Focuses on the development of organizations and decision making skills utilized by the practice manager.
Lecture Hours 3
Note Typically Offered: Spring

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for MOS Word Core Certification

Eligible for National Healthcareer Association Certified Electronic Health Records Specialist Certification

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Pharmacy Technician, CSC

Purpose

Provide students with advanced theory and laboratory experience required for employment in acute care and retail pharmacies. Prepare students to take national certification exam(s). Provide employers with competent, entry-level pharmacy technicians. Provide students with exposure to the latest technology and devices being used.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Understand and describe hospital and institutional practice and formulary guidelines.
2. Describe proper procedures for repackaging and dispensing medications. Describe the functions associated with drug information centers, specialty services such as intravenous admixture and total parenteral nutrition, satellite pharmacies, and clinical pharmacists working in an institution. Maintain a floor stock.
3. Describe and apply Standard (universal) Procedures, aseptic technique, sterilization, contamination, and the germ theory of disease. Identify parenterals, appropriate means of disposing hazardous agents, and procedures to follow in the event of exposure. Identify an automated dispensing device.
4. Describe the characteristics of intravenous solutions including solubility, osmolality, osmolarity, and pH. Describe equipment and supplies necessary for preparing intravenous parenterals. Identify the components of an intravenous administration set, syringe, needle, vial, and ampule. Perform conversions between Fahrenheit and Celsius and the reverse, calculate molecular weight, specific gravity, and intravenous administration rates.
5. Express understanding of the extent and effect of medical errors on patient health and safety. Describe how and to what extent medication errors contribute to medical errors. Identify, define, and determine how to reduce types of medical errors. Describe root cause analysis of medication errors. Identify error reporting systems.
6. Understand the importance of human relations, communications, ethics, attitude, and appearance. Describe policies and procedures. Understand the importance of not dispensing medical or pharmaceutical advice.
7. Describe and abide by the confidentiality laws in healthcare. Practice within the scope of duties of a pharmacy technician. Maintain professionalism at all times.
8. Create a resume that stands out in the job market and increases employability. Compare and contrast Virginia registration and licensure, and national certifications, and the benefits of each. Identify recertification requirements.

Employment Opportunities

Job opportunities for Pharmacy Technicians include retail pharmacies, acute care facilities, long term care facilities, and pharmaceutical companies.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program. Interested students should complete an online pharmacy technician program application and contact the program coordinator for further advising.

Additional Information

Students must possess a diploma from an accredited high school or home school, or possess a GED. Students must demonstrate competency as readiness for MTH 133 (test scores or completion of MTE 1-3 or MDE 10) or completion of MTH 133 or a higher-level math course with a grade of "C" or better. Students must demonstrate competency in English with readiness for ENG 111, test scores or completion of EDE 10, or completion of ENG 111 with a grade of "C" or better.

Passing of a criminal/sexual background check is required. Drug testing is also a requirement prior to placement of students for clinical rotations. Students with positive or inconclusive test results will be prohibited from experiential assignment and will not be eligible to complete the program and will be withdrawn. Students must be at least 18 years of age to attend clinicals.

Our clinical affiliates require certain vaccinations and testing requirements. This may change or be updated by them at any time. The current list may be found below. The background check, drug testing, and vaccine and document trackers are conducted through a third-party vendor and all costs are the responsibility of the student.

Students must complete all required coursework with a minimum grade of "C" and complete all courses in the curriculum to be eligible to take either the PTCB or ExCPT national certification examinations. Certification exam(s) must be taken within six months of program completion. The program's 2022 pass rate on the PTCB exam is 100.0%.

MECC's pharmacy technician program is accredited by ASHP (American Society of Health-System Pharmacists) and fully approved by the Virginia Board of Pharmacy.

- Proof and record of three Hepatitis B vaccinations or proof of immunity by titer
- Proof and record of two MMR vaccines or proof of immunity by titer
- Proof of negative TB test (two step)
- Proof and record of seasonal flu shot
- Proof and record of two varicella vaccinations or proof of immunity by titer
- Poof and record of DPT (diphtheria, tetanus, pertussis) vaccinations or proof of immunity by titer
- Copy of BLS for Healthcare Provider (CPR) certification (front and back of card)
- Documentation of current health insurance coverage
- Proof and record of two Hepatitis A vaccinations or proof of series begun in the past six months
- Voluntary disclosure of COVID-19 vaccination status

For Further Information, Contact:

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Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

HIM 111 - Medical Terminology I

3 Credits

Introduces the student to the language used in the health record. Includes a system-by-system review of anatomical disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part I of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 121 - Substance Abuse: Prevention and Treatment

3 Credits

Explores the use and abuse of drugs in contemporary society with emphasis upon sociological, physiological, and psychological effects of drugs.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 145 - Ethics for Health Care Personnel

2 Credits

Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities.
Prerequisite EDE 10

Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

SDV 107 - Career Education

3 Credits

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Student Receives AHA BLS for Healthcare Provider CPR Certification

Eligible to Take the Work Ethic Proficiency Certification Exam

Second Semester

HIM 112 - Medical Terminology II

3 Credits

Continues with focus on the language used in the health record. Includes a system-by-system review of anatomic disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 261 - Basic Pharmacy I

3 Credits

Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Part I of II.
Prerequisite EDE 10 and MDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring

HLT 262 - Basic Pharmacy II

3 Credits

Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Part II of II.
Corequisite HLT 261
Lecture Hours 3
Note Typically Offered: Fall/Spring

HLT 263 - Basic Pharmacy I Lab

1 Credits

Provides practical experience to supplement instruction in HLT 261-HLT 262. Should be taken concurrently with HLT 261-HLT 262, in appropriate curricula, as identified by the college. Part I of II.
Corequisite HLT 261
Lab hours 3
Note Typically Offered: Fall/Spring

HLT 190 - Coordinated Internship: Pharmacy Technician

3 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
Prerequisite HLT 261
Corequisite HLT 262 and HLT 263
Lab hours 9
Note Typically Offered: Fall/Spring

HLT 250 - General Pharmacology

3 Credits

Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agent within each class, and routine mathematical calculations needed to determine desired dosages.
Lecture Hours 3
Note Typically Offered: Fall/Spring

Eligible to Take the National PTCB (Pharmacy Technician Certification Board) Exam

Total Program Credits: 29

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.
HLT 119, HLT 100, EMS 100, EMS 111, or EMS 101 may be substituted for HLT 105. HLT 261 and HLT 262 should be taken in the same semester, 261 in the first 8-week session and 262 in the last 8-week session.

Sports Medicine Assistant, CSC

Purpose

Provide students with theory and laboratory experience desired for coaching, athletic, and personal training activities. Provide students with a credential to supplement applications to competitive physician assistant, athletic trainer, and sports medicine programs.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate workplace readiness skills.
2. Obtain first aid and CPR certification.
3. Describe components needed to perform and interpret a nutritional analysis.
4. Explain the integumentary, musculoskeletal, respiratory, cardiovascular, nervous, immune, and endocrine systems.
5. Use appropriate medical terminology.
6. Describe the principles associated with the planes and axes of human movement.
7. Differentiate between many common injuries and illnesses.
8. Explain the legal and ethical significance of documentation and record-keeping in sports medicine.
9. Demonstrate ethical behavior within the sports medicine profession.
10. Describe components needed to perform a fitness assessment.
11. Explain the basic principles and importance of strength training.
12. Describe components needed to develop a safe strengthening program for healthy individuals.
13. Identify factors related to equipment safety.
14. Manage an injury within the scope of first aid.
15. Describe components needed to utilize various methods to perform and analyze body composition.

Employment Opportunities

Job opportunities may include coaching assistance, fitness and wellness centers. Volunteer opportunities may include coaching, athletic, and personal training activities.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Sarah Clarkston, Health Sciences Advisor
sclarkston@mecc.edu
276.523.9010

Amanda Robbins, RN
arobbins@mecc.edu
276.523.9020

Wes Mullins, Dean
jmullins@mecc.edu
276.523.9017

Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

HLT 145 - Ethics for Health Care Personnel

2 Credits

Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities.
Prerequisite EDE 10
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

HLT 130 - Nutrition and Diet Therapy

2 Credits

Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. This course applies to career/technical education (CTE) programs. HLT 230 serves both transfer and CTE programs.
Prerequisite EDE 10
Lecture Hours 1
Lab hours 1
Note Typically Offered: Fall/Spring/Summer

HLT 100 - First Aid and CPR

3 Credits

Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS for Healthcare Provider CPR Certification, AHA Heartsaver OSHA Bloodborne Pathogen Certification, OSHA 10 Safety Certification, and AHA Heartsaver First Aid Certification

Spring Semester

HLT 141 - Introduction to Medical Terminology

1 Credits

Focuses on medical terminology for students preparing for careers in the health professions. This course applies to career/technical education (CTE) programs. HLT 143 serves both transfer and CTE programs.
Prerequisite EDE 10
Lecture Hours 1
Note Typically Offered: Spring

HLT 125 - Anatomy and Physiology for Exercise Science

3 Credits

Presents basic principles of human anatomy and physiology including the body structure, systems and functions. The course provides a foundation to build and apply concepts in the study of Exercise Science, Group Fitness, Personal Training, and related fitness studies.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Spring

HLT 156 - Healthcare for Athletic Injuries

3 Credits

Teaches prevention and care of athletic injuries, recognition and management of head and spinal injuries, fractures, strains, sprains, as well as cardiac emergencies. Discusses taping, protective equipment, and medical referral.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Spring

- Approved Elective **3 Credits**

Total Program Credits: 19

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Art and Music (Career Pathway)

Old Time Music, CSC

Purpose

The purpose of the Career Studies Certificate in Old Time Music is to allow students to expand or enhance their knowledge and performance skills in cultural heritage music and explore this field as a career option. This certificate is not intended for transfer.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Discuss and write about the culture and history of the central Appalachian region with more extensive knowledge on the heritage music.
2. Perform proficiently on one instrument of their choice and have a beginning level of proficiency on a second instrument of their choice.
3. Set up and operate the equipment for providing audio sound and recording as well as assist with the establishment and operation of a heritage music event.
4. Teach heritage music to others in private and group lessons.
5. Explore cultural heritage as a career option for music education and performance as well as event management.

Employment Opportunities

- Assist with heritage festival and event planning and management.
- Perform heritage music.
- Teach private and group music lessons.
- Work in a music store.

For Further Information, Contact:

Lee Davis

leedavis@mecc.edu

276.523.7479

Program of Study

First Year Fall

SDV 107 - Career Education

3 Credits

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HUM 153 - Introduction to Appalachian Studies

3 Credits

Explores the Appalachian region from a cross-disciplinary perspective, with readings on Appalachia drawn primarily from the humanities. Considers the historical, environmental, political and economic contexts that shape Appalachia.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MUS 133 - Recording Systems Services I

3 Credits

Introduces the principles of recording systems and recording system designs. Provides the student with theoretical and practical site locations. Includes the study of sound studio design and construction, production costs, and retail distribution. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

- Elective Instrument Class **3 Credits**
- Elective **3 Credits**

MUS 150 - Old Time String Band

3 Credits

An introductory level course on the history and performance of traditional American string band music in the central Appalachian region. Classroom instruction will include lecture, demonstrations, assignments, reports, and quizzes. Student practice will be required outside of classroom hours.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

First Year Spring

- Elective Instrument Class **3 Credits**

MUS 290 - Coordinated Internship

1-5 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. May be repeated for credit. Variable hours. (1-5 credits).

Total Program Credits: 28

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Business (Career Pathway)

Administrative Support Technology, AAS

Purpose

The Administrative Support Technology major is designed to prepare individuals for positions in an office and/or to update skills of office workers. The program provides the knowledge and skills necessary for effective job performance in office administrative support positions. In addition, the program helps prepare individuals for MCAS (Microsoft Certified Application Specialist) and CAP (Certified Administrative Professional).

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Written Communications: Students will apply effective writing and formatting techniques to the composition of e-mail messages, interoffice memos, routine letters, goodwill messages, persuasive messages, negative messages, informal reports, proposals, and formal reports.
2. Scientific Reasoning: Students will demonstrate proficiency in recording, analyzing, and reporting data using computerized tools and methods.
3. Critical Thinking: Students will be able to select, analyze, interpret and evaluate a range of source materials.
4. Quantitative Reasoning: Students will be able to explain information presented in graphs, diagrams, and tables.
5. Information Literacy: Students will be able to recognize when information is needed and have the ability to locate, evaluate, and effectively use the needed information.

Employment Opportunities

Administrative Support Technologists work in office support positions and perform a variety of office tasks. Employers seek workers who have excellent skills in computer applications, communications, decision making, critical thinking, and team-work. Job opportunities as executive secretaries, administrative assistants, receptionists, word processing specialists, and office technicians are available locally, regionally, and nationally.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jane Jones
jjones@mecc.edu
276.523.9057

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

ACC 115 - Applied Accounting

3 Credits

Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management.
Lecture Hours 3
Note Typically Offered: Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

AST 102 - Keyboarding II

3 Credits

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy.
Prerequisite AST 101
Lecture Hours 3
Note Typically Offered: Fall/Summer

AST 107 - Editing/Proofreading Skills

3 Credits

Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 100 - College Success Skills

1 Credits

Assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and Math placement testing. Strongly recommended for beginning students. Required for graduation.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ACC 215 - Computerized Accounting

3 Credits

Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting.
Prerequisite ACC 212 or equivalent
Lecture Hours 3

AST 137 - Records Management

3 Credits

Teaches filing and records management procedures for hard copy, electronic, and micrographic systems. Identifies equipment, supplies, and solutions to records management problems.
Lecture Hours 3
Note Typically Offered: Spring

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

MTH 132 - Business Mathematics

3 Credits

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible for Quickbooks Online Certified User Certification upon Completion of ACC 215

Eligible for Microsoft Office Specialist Word Certification Core & Expert upon Completion of AST 141.

Second Year Fall

AST 205 - Business Communications

3 Credits

Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials.
Lecture Hours 3
Note Typically Offered: Fall

AST 236 - Specialized Software Applications

3 Credits

Teaches specialized integrated software application on the microcomputer. Emphasizes document production to meet business and industry standards. Pre-requisite: AST 101 or equivalent. A laboratory co-requisite (AST 237) may be required.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall

AST 243 - Office Administration I

3 Credits

Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment.
Prerequisite AST 101, AST 141, and EDE 10
Lecture Hours 3
Note Typically Offered: Fall

BUS 205 - Human Resource Management

3 Credits

Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations.
Lecture Hours 3
Note Typically Offered: Fall/Spring

BUS 241 - Business Law I

3 Credits

Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions.
Lecture Hours 3
Note Typically Offered: Fall/Summer

Second Year Spring

AST 244 - Office Administration II

3 Credits

Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory role of the office professional. Includes travel and meeting planning, office budgeting and financial procedures, international issues, and career development.
Prerequisite AST 243 or equivalent
Lecture Hours 3
Note Typically Offered: Spring

AST 290 - Coordinated Internship

3 Credits

Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college.
Prerequisite Readiness for ENG 111
Lecture Hours 3
Note Credit/practice ratio maximum 1-5. Variable hours.

Typically Offered: Fall/Spring/Summer

ITE 140 - Spreadsheeting for Business

3 Credits

Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools.
Lecture Hours 3
Note Typically Offered: Spring

- Humanities or Social Science Elective **3 Credits**

MKT 170 - Customer Service

1 Credits

Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

- Social Science Elective **3 Credits**

Eligible for Career Readiness Certifications While Enrolled in AST 290

Eligible for Microsoft Office Specialist Excel Certification Core upon Completion of ITE 140

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Clerical Assistant, C

Purpose

The Clerical Assistant Certificate is designed to prepare students for entry-level positions in an office. Keyboarding, filing, word processing, administrative support technology, and general education courses provide individuals with the knowledge and skills necessary for performance in today's automated office.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the fundamental accounting concepts and principles that governs the accounting cycle.
2. Create documents, spreadsheets, databases, and presentations using integrated software.
3. Develop keyboarding and document production skills with emphasis on preparation of business documents.
4. Develop business communication skills essential in proofreading and editing business documents.

Employment Opportunities

Business, industry, and government offices have job opportunities for entry-level office workers in the immediate area and throughout the nation.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jane Jones
jjones@mecc.edu
276.523.9057

Jane Jones, Dean
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276.523.9057

Program of Study

Fall Semester

ACC 115 - Applied Accounting

3 Credits

Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management.
Lecture Hours 3
Note Typically Offered: Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

AST 102 - Keyboarding II

3 Credits

Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy.
Prerequisite AST 101
Lecture Hours 3
Note Typically Offered: Fall/Summer

AST 107 - Editing/Proofreading Skills

3 Credits

Develops skills essential to creating and editing business documents. Covers grammar, spelling, diction, punctuation, capitalization, and other usage problems.
Lecture Hours 3
Note Typically Offered: Fall/Spring

AST 236 - Specialized Software Applications

3 Credits

Teaches specialized integrated software application on the microcomputer. Emphasizes document production to meet business and industry standards. Pre-requisite: AST 101 or equivalent. A laboratory co-requisite (AST 237) may be required.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MKT 170 - Customer Service

1 Credits

Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Spring Semester

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

AST 137 - Records Management

3 Credits

Teaches filing and records management procedures for hard copy, electronic, and micrographic systems. Identifies equipment, supplies, and solutions to records management problems.

Lecture Hours 3
Note Typically Offered: Spring

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 140 - Spreadsheeting for Business

3 Credits

Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools.
Lecture Hours 3
Note Typically Offered: Spring

- Social Science Elective **3 Credits**

Eligible for Microsoft Office Specialist Word Core & Master Certifications upon Completion of AST 141

Total Program Credits: 32

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Legal Office Assisting, C

Purpose

The Legal Office Assisting Certificate is designed to prepare students for an entry-level position in a legal office setting. Students will gain basic skills in word processing, telephone reception, ethics, and professionalism. Specialized legal courses are complemented by several general education courses. The Legal Office Assisting Certificate is a milestone for students who plan to pursue the Paralegal Studies Associate of Applied Science degree.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate effective communication skills through interaction, in person, by telephone, in written and electronic correspondence, with lawyers, clients, witnesses, court personnel, co-workers, and other business professionals, using appropriate legal terminology and formatting.
2. Utilize strong organizational skills necessary to sort through and manage information, manually and electronically.
3. Apply ethical and professional principles that guide paralegal conduct, including but not limited to: unauthorized practice of law and lawyer supervision of non-lawyers; confidentiality and attorney-client privilege; conflicts of interests; competency; handling of client funds; office decorum and dress.
4. Integrate appropriate skills to work effectively and positively with others beginning on the first day of a new job.

Employment Opportunities

The Legal Office Assisting program prepares students for a wide range of entry-level positions in the legal/paraprofessional field.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Beth Snodgrass
bsnodgrass@mecc.edu
276.523.9059

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

Fall Semester

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

BUS 240 - Introduction to Business Law

3 Credits

Online: Provides an introduction to the American legal system and the use of law to achieve economic and social goals. Highlights ethical principles and legal reasoning underlying the rights and obligations of business relationships and their effect on business decision-making. Emphasizes fundamental principles of government regulation and the court system, constitutional law, torts, criminal law, contracts, agency, employment, and property law.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall and Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

LGL 120 - Legal Terminology

3 Credits

Provides an understanding of legal terminology with emphasis on developing an understanding of legal terminology in different ways rather than relying solely on learning through rote memorization. Designed to aid students preparing for certification.
Lecture Hours 3
Note Typically Offered: Fall

LGL 110 - Law/Legal Asst

3 Credits

Introduces various areas of law in which a paralegal may be employed. Includes study of the court system (Virginia and federal); a brief overview of criminal law, torts, family law, evidence, the U.C.C., contracts, and ethics; the role of the paralegal; and other areas of interest.
Lecture Hours 3
Note Typically Offered: Fall

LGL 200 - Ethics for the Paralegal

1 Credits

Examines general principles of ethical conduct applicable to paralegals. Includes the application of rules of ethics to the practicing paralegal.
Lecture Hours 1
Note Typically Offered: Check Course Availability

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Spring Semester

MKT 170 - Customer Service

1 Credits

Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

LGL 115 - Real Estate Law

3 Credits

Studies law of real property, and gives in-depth survey of more common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust. Focuses on drafting problems involving these various instruments. Includes research projects, and studies the system of recording and search of public documents.
Lecture Hours 3
Note Typically Offered: Spring

LGL 117 - Family Law

3 Credits

Studies elements of a valid marriage, grounds for divorce and annulment, separation, defense, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre- and antenuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws.
Lecture Hours 3
Note Typically Offered: Spring

PSY 120 - Human Relations

3 Credits

Introduces the theory and practice of effective human relations. Increases understanding of self and others and interpersonal skills needed to be a competent and cooperative communicator.
Lecture Hours 3
Note Typically Offered: Fall

Total Program Credits: 30

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Management, AAS

Purpose

The Associate of Applied Science Degree in Management prepares students for employment in entry-level management positions. Business managers are essential to all organizations. Managers plan, organize, lead, and control activities to effectively and efficiently accomplish organizational goals. The successful manager has excellent communication and interpersonal skills; demonstrates team-building and leadership abilities; exercises initiative, self-discipline, and good judgment; and possesses basic computer skills. The curriculum consists of courses in business management, computer applications, marketing, and general education.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Explain the major concepts in the functional areas of accounting, marketing, finance, and management.
2. Evaluate the legal, social, and economic environments of business.
3. Describe the global environment of business.
4. Describe and explain the ethical obligations and responsibilities of business.
5. Apply decision-support tools to business decision-making.
6. Construct and present effective oral and written forms of professional communication.
7. Apply knowledge of business concepts and functions in an integrated manner.
8. Use management processes in an applied organization or business situation to manage people, processes, and resources within a diverse organization.
9. Apply knowledge of key marketing concepts in an integrated manner to analyze marketing decisions in a dynamic business environment.

Employment Opportunities

The Management major is designed for students who seek employment in business or who wish to operate their own business upon completion of the program. Salaries of managers vary depending on the level of responsibility, length of service, and the size of the business.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jane Jones, Dean
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276.523.9057

Program of Study

First Year Fall

BUS 100 - Introduction to Business

3 Credits

Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, human resource management, marketing, finance, and risk management. Develops business vocabulary.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MKT 100 - Principles of Marketing

3 Credits

Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical, e-commerce, and international considerations in marketing.
Lecture Hours 3
Note Typically Offered: Fall

MKT 170 - Customer Service

1 Credits

Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BUS 111 - Principles of Supervision I

3 Credits

Teaches the fundamentals of supervision, including the primary responsibilities of the supervisor. Introduces factors relating to the work of supervisor and subordinates. Covers aspects of leadership, job management, work improvement, training and orientation, performance evaluation, and effective employee/ supervisor relationships.
Lecture Hours 3
Note Typically Offered: Spring/Summer

BUS 117 - Leadership Development

3 Credits

Covers interpersonal relations in hierarchical structures. Examines the dynamics of teamwork, motivation, handling change and conflict and how to achieve positive results through others.
Lecture Hours 3
Note Typically Offered: Fall/Summer

BUS 240 - Introduction to Business Law

3 Credits

Online: Provides an introduction to the American legal system and the use of law to achieve economic and social goals. Highlights ethical principles and legal reasoning underlying the rights and obligations of business relationships and their effect on business decision-making. Emphasizes fundamental principles of government regulation and the court system, constitutional law, torts, criminal law, contracts, agency, employment, and property law.

Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall and Spring

MKT 201 - Introduction to Marketing

3 Credits

Introduces students to the discipline of marketing and the need to create customer value and relationships in the marketplace. Presents an overview of the marketing principles and management strategies, along with the analytical tools used by organizations in the creation of a marketing plan.
Lecture Hours 3

MTH 132 - Business Mathematics

3 Credits

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Social Science Elective - **3 Credits**

Second Year Fall

ACC 111 - Accounting I

3 Credits

Presents fundamental accounting concepts and principles governing the accounting cycle, journals, ledgers, working papers, and preparation of financial statements for sole proprietorships.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

ACC 211 - Principles of Accounting I

3 Credits

Introduces accounting principles with respect to financial reporting. Demonstrates how decision makers use accounting information for reporting purposes. Focuses on the preparation of accounting information and its use in the operation of organizations, as well as methods of analysis and interpretation of accounting information.
Lecture Hours 3

AST 205 - Business Communications

3 Credits

Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials.
Lecture Hours 3
Note Typically Offered: Fall

BUS 200 - Principles of Management

3 Credits

Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives.
Lecture Hours 3
Note Typically Offered: Fall/Spring

BUS 205 - Human Resource Management

3 Credits

Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ECO 150 - Economics Essentials: Theory and Application

3 Credits

Presents a broad overview of microeconomic and macroeconomic theory with application to current economic situations. Introduces concepts, policies, and theories in addition to models of domestic and global economies. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

ECO 201 - Principles of Macroeconomics

3 Credits

Presents the fundamental macroeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, national economic growth, inflation, recession, unemployment, fiscal and monetary policies, and international trade. Develops an appreciation of how these economic concepts apply to consumer, business, and government decisions, and their effect on the overall economy. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

- Humanities Elective - **3 Credits**

Second Year Spring

ACC 112 - Accounting II

3 Credits

Covers fundamental accounting concepts and principles governing the accounting cycle, journals, ledgers, working papers, and preparation of financial statements for sole proprietorships.
Prerequisite ACC 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

ACC 212 - Principles of Accounting II

3 Credits

Introduces accounting principles with respect to cost and managerial accounting. Focuses on the application of accounting information with respect to product costing, as well as its use within the organization to provide direction and to judge performance.
Prerequisite ACC 211
Lecture Hours 3

BUS 285 - Current Issues in Management

3 Credits

Designed as a capstone course for management majors, the course is designed to provide an integrated perspective of the current issues and trends in business management. Contemporary issues will be explored in a highly participatory class environment.
Lecture Hours 3
Note Typically Offered: Spring

BUS 116 - Entrepreneurship

3 Credits

Presents the various steps considered necessary when going into business. Includes areas such as product-service analysis, market research evaluation, setting up books, ways to finance start-up, operations of the business, development of business plans, buyouts versus starting from scratch, and franchising. Uses problems and cases to demonstrate implementation of these techniques.
Lecture Hours 3

or

ECO 202 - Principles of Microeconomics

3 Credits

Presents the fundamental microeconomic concepts, theories, and issues including the study of scarcity and opportunity cost, supply and demand, elasticities, marginal revenues and costs, profits, production and distribution. Develops an appreciation of how these economic concepts apply to consumer and business decisions, and their effect on the individual. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring

BUS 290 - Coordinated Internship

3 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college.
Lecture Hours 3
Note Typically Offered: Summer

ITE 140 - Spreadsheeting for Business

3 Credits

Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools.
Lecture Hours 3
Note Typically Offered: Spring

ITE 150 - Desktop Database Software

3 Credits

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels.
Lecture Hours 3
Note Typically Offered: Fall

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Paralegal Studies, AAS

Purpose

The Paralegal Studies Degree is designed to prepare individuals to work in a legal office environment. The program provides training in the general processes of American law and the knowledge/skills to perform specific legal tasks under the supervision of an attorney. In addition, the program helps prepare individuals for paralegal certification exams.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate effective communication skills through interaction, in person, by telephone, in written and electronic correspondence, with lawyers, clients, witnesses, court personnel, co-workers, and other business professionals, using appropriate legal terminology and formatting.
2. Perform basic legal research and analysis necessary to identify legal issues and potential solutions to legal problems.
3. Utilize strong organizational skills necessary to sort through and manage information, manually and electronically.
4. Apply principles of writing and rules of English grammar to all writing tasks, to be able to prepare legal documents commonly used in the profession.
5. Demonstrate competent understanding of computer literacy and proficiency required in the typical law office.
6. Apply ethical and professional principles that guide paralegal conduct, including but not limited to: unauthorized practice of law and lawyer supervision of non-lawyers; confidentiality and attorney-client privilege; conflicts of interests; competency; handling of client funds; office decorum and dress.
7. Integrate appropriate skills to work effectively and positively with others beginning on the first day of a new job.

Employment Opportunities

Students will have opportunity to gain the knowledge and skills required to perform a variety of specialized duties with competence and understanding. The Paralegal Studies Degree will help prepare students for a wide range of entry-level positions as a paraprofessional in the legal field with opportunities in law firms, mortgage companies, banks, title insurance companies, private corporations, and government and administrative agencies.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Beth Snodgrass
bsnodgrass@mecc.edu
276.523.9059

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

First Year Fall

AST 101 - Keyboarding I

2 Credits

Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation.
Lecture Hours 2
Note Typically Offered: Fall/Summer

BUS 240 - Introduction to Business Law

3 Credits

Online: Provides an introduction to the American legal system and the use of law to achieve economic and social goals. Highlights ethical principles and legal reasoning underlying the rights and obligations of business relationships and their effect on business decision-making. Emphasizes fundamental principles of government regulation and the court system, constitutional law, torts, criminal law, contracts, agency, employment, and property law.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall and Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

LGL 120 - Legal Terminology

3 Credits

Provides an understanding of legal terminology with emphasis on developing an understanding of legal terminology in different ways rather than relying solely on learning through rote memorization. Designed to aid students preparing for certification.

Lecture Hours 3
Note Typically Offered: Fall

LGL 110 - Law/Legal Asst

3 Credits

Introduces various areas of law in which a paralegal may be employed. Includes study of the court system (Virginia and federal); a brief overview of criminal law, torts, family law, evidence, the U.C.C., contracts, and ethics; the role of the paralegal; and other areas of interest.
Lecture Hours 3
Note Typically Offered: Fall

LGL 200 - Ethics for the Paralegal

1 Credits

Examines general principles of ethical conduct applicable to paralegals. Includes the application of rules of ethics to the practicing paralegal.
Lecture Hours 1
Note Typically Offered: Check Course Availability

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ITE 175 - Email Essentials

1 Credits

Focuses on providing the student with a working knowledge of introductory email function. Includes the basic concepts of customizing email and using all the email capabilities for reading, creating, sending emails, managing calendar functions and managing contacts, tasks, and notes.
Lecture Hours 1
Note Typically Offered: Fall/Spring

MKT 170 - Customer Service

1 Credits

Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer

service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

AST 141 - Word Processing I

3 Credits

Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software.
Prerequisite AST 101 or equivalent
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

LGL 115 - Real Estate Law

3 Credits

Studies law of real property, and gives in-depth survey of more common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust. Focuses on drafting problems involving these various instruments. Includes research projects, and studies the system of recording and search of public documents.
Lecture Hours 3
Note Typically Offered: Spring

LGL 117 - Family Law

3 Credits

Studies elements of a valid marriage, grounds for divorce and annulment, separation, defense, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre- and antenuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws.
Lecture Hours 3
Note Typically Offered: Spring

LGL 127 - Legal Research and Writing

3 Credits

Provides a basic understanding of legal research and the proper preparation of legal documents, including brief writing.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 132 - Business Mathematics

3 Credits

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.

Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible for Microsoft Office Specialist Word Core Exam upon Completion Of AST 141

Eligible for Legal Office Assisting Certificate (261)

Second Year Fall

LGL 195 - Topics in Paralegal Studies

2 Credits

Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit.
Note Typically Offered: Fall

AST 205 - Business Communications

3 Credits

Teaches techniques of oral and written communications. Emphasizes writing and presenting business-related materials.
Lecture Hours 3
Note Typically Offered: Fall

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

LGL 216 - Trial Preparation & Discovery Practice

3 Credits

Examines the trial process, including the preparation of a trial notebook, pretrial motions, and orders. May include preparation of interrogatories, depositions, and other discovery tools used in assembling evidence in preparation for the trial or an administrative hearing.
Lecture Hours 3
Note Typically Offered: Fall

LGL 218 - Criminal Law

3 Credits

Focuses on major crimes, including their classification, elements of proof, intent, conspiracy, responsibility, parties, and defenses. Emphasizes Virginia law. May include general principles of applicable constitutional law and criminal procedure.
Lecture Hours 3
Note Typically Offered: Fall

PLS 135 - U. S. Government & Politics

3 Credits

Teaches the political structure, processes, institutions, and policymaking of the US national government. Focuses on the three branches of government, their interrelationships, and how they shape policy. Addresses federalism; civil liberties and civil rights; political socialization and participation; public opinion, the media; interest groups; political parties; elections; and policymaking. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall

Second Year Spring

AST 265 - Legal Office Procedures I

3 Credits

Introduces general office procedures used in law offices and courts.
Corequisite AST 102
Lecture Hours 3
Note Typically Offered: Spring

LGL 230 - Legal Transactions

3 Credits

Online: Presents an in-depth study of general contract law, including formation, breach, enforcement, and remedies. May include an overview of UCC sales, commercial paper, and collections.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

LGL 222 - Information Technology for the Paralegal

3 Credits

Provides extensive instruction on the use of technology in the law office, including word processing tools, spreadsheet programs, database management systems, office management programs, case management programs, electronic mail, the cloud, and use of the Internet in the practice of law.
Prerequisite ITE 115 or divisional approval.

Lecture Hours 3
Note Typically Offered: Spring

LGL 290 - Coordinated Internship

3 Credits

In order to apply legal assisting theory to practice, this cooperative venture will allow students to participate in onsite training in actual paralegal settings. Variable hours per week.
Note Typically Offered: Spring/Summer

Eligible for Career Readiness Certifications While Enrolled In LGL 290

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Real Estate, CSC

Purpose

The Real Estate Career Studies Certificate is designed to provide a high quality, cost effective, accessible education to those seeking to enter the real estate business, and to those who are seeking licensure as a real estate agent.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Understand common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust.
2. Understand real estate principles such as study of titles, estates, land descriptions, contracts, legal instruments, financing, and management of real estate.
3. Demonstrate basic computer concepts, Internet skills, and the use of Microsoft Office.

Employment Opportunities

Employment opportunites are available with local real estate agencies, as well as agencies throughout the state for students who obtain licensure as a real estate agent in Virginia.

For Further Information, Contact:

Sabrina Ward
sward@mecc.edu
276.523.9060

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

Fall Semester

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

UMS 107 - Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School

3 Credits

Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate.
Note Typically Offered: Fall

Spring Semester

REA 100 - Principles of Real Estate

4 Credits

Examines practical applications of real estate principles. Includes a study of titles, estates, land descriptions, contracts, legal instruments and concepts, real estate mathematics, financing, agency, appraisal, fair housing, and management of real estate.
Lecture Hours 4
Note Typically Offered: Fall/Spring/Summer

LGL 115 - Real Estate Law

3 Credits

Studies law of real property, and gives in-depth survey of more common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust. Focuses on drafting problems involving these various instruments. Includes research projects, and studies the system of recording and search of public documents.
Lecture Hours 3
Note Typically Offered: Spring

MKT 284 - Social Media Marketing

3 Credits

Surveys the use of social networks and online communities such as blogs, wikis, virtual events that allow companies to expand their interaction with customers and develop relationships with collaborative communities. Emphasizes the ongoing transformation of the way companies adjust their marketing plans to improve interaction with customers online.
Lecture Hours 3
Note Typically Offered: Spring/Summer

Eligible for Virginia Realtor Licensing Exam upon Completion Of REA 100

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Small Business Management, CSC

Purpose

The Small Business Management Career Studies Certificate provides training in the effective and efficient management and operation of a small business. The curriculum includes coursework in accounting, management, marketing, and finance.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Explain the major concepts in the functional areas of accounting, marketing, finance, and management.
2. Describe and explain the ethical obligations and responsibilities of business.
3. Apply knowledge of business concepts and functions in an integrated manner.

Employment Opportunities

The Small Business Management Career Studies Certificate is designed for students who seek an entry-level managerial position in a small business or who wish to operate their own small business.

For Further Information, Contact:

Jane Jones, Dean
jjones@mecc.edu
276.523.9057

Program of Study

Frist Year Fall

ACC 115 - Applied Accounting

3 Credits

Presents practical accounting procedures for retail stores, professional individuals in firms, and personal service occupations. Covers the accounting cycle, journals, ledgers, preparation of financial statements and payrolls, and checking account management.
Lecture Hours 3
Note Typically Offered: Fall

BUS 149 - Workplace Ethics

1 Credits

Provides a broad overview of ethics in the modern day business world including workforce skill building and self awareness through group discussions. Discusses workplace topics such as diversity, substance abuse, hiring and firing and workplace practices, appropriate dress, communication, business ethics, and interviewing.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

BUS 205 - Human Resource Management

3 Credits

Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MKT 100 - Principles of Marketing

3 Credits

Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical, e-commerce, and international considerations in marketing.
Lecture Hours 3
Note Typically Offered: Fall

First Year Spring

ACC 134 - Small Business Taxes

2 Credits

Introduces taxes most frequently encountered in business. Includes payroll, sales, property, and income tax.
Lecture Hours 2

ACC 215 - Computerized Accounting

3 Credits

Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting.
Prerequisite ACC 212 or equivalent
Lecture Hours 3

BUS 165 - Small Business Management

3 Credits

Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements comprising a business plan. Presents information establishing financial and

administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses.
Lecture Hours 3
Note Typically Offered: Spring/Summer

MKT 284 - Social Media Marketing

3 Credits

Surveys the use of social networks and online communities such as blogs, wikis, virtual events that allow companies to expand their interaction with customers and develop relationships with collaborative communities. Emphasizes the ongoing transformation of the way companies adjust their marketing plans to improve interaction with customers online.
Lecture Hours 3
Note Typically Offered: Spring/Summer

Eligible for Quickbooks Online Certified User Certification Upon Completion of ACC 215

Eligible for Workplace Ethics Certification

Total Program Credits: 21

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Construction (Career Pathway)

Air Conditioning and Refrigeration, C

Purpose

The Air Conditioning and Refrigeration program is designed to provide the job skills necessary for employment a beginning electrician or as a HVAC service technician. Special emphasis is placed upon the installation and repairing of residential and commercial air conditioning units. The program is offered during the day and on a part time basis in the evening.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow safe working practice.
2. Apply the principles and strategies used for the installation of air condition systems, heat pump systems, electric furnace, fossil fuel furnace, and system controls.
3. Apply the principles and strategies used to troubleshoot and service air condition systems, heat pump systems, electric furnaces, fossil fuel furnace, and system controls.
4. Recognize components and design principles used in air distribution systems.
5. Use mathematical skills to solve problems in electrical, heating, and air conditioning systems.
6. Apply troubleshooting skills to diagnose and repair the following: air distribution, heating systems, cooling systems, and system controls.
7. Use tools and equipment required for repairing, testing, and installation of air conditioning systems, refrigeration systems, heat pump systems, electric furnace, fossil fuel furnace, and system controls.
8. Perform basic business, employability and customer service skills as related to the HVA/C-R industry.
9. Handle refrigerant by completing EPA Section 608 Type II Technician Certification.

Employment Opportunities

The certificate in Air Conditioning and Refrigeration is designed to prepare graduates for occupations such as Air Conditioning Service & Installation technicians or beginning electricians.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jerry Ramey
jramey@mecc.edu
276.523.9089

Bryce Shular
bshular@mecc.edu
276.523.9091

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

AIR 111 - Air Condition & Refrigeration Controls I

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 121 - Air Conditioning and Refrigeration I

4 Credits

Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Part I of II.
Lecture Hours 3
Lab hours 3

AIR 210 - Air Conditioning and Refrigeration Analysis

4 Credits

Reviews principles of refrigeration and air conditioning. Studies components, types and applications. Includes types of refrigeration systems such as multistage and cascade, selection and balancing of major components, and absorption systems.
Lecture Hours 3
Lab hours 3

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.

Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER HVACR Level 1 Certification

First Year Spring

AIR 112 - Air Condition & Refrigeration II

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part II of II.
Lecture Hours 2
Lab hours 2

AIR 154 - Heating Systems I

3 Credits

Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 205 - Hydronics and Zoning

4 Credits

Presents installation, servicing, troubleshooting, and repair of hydronic systems for heating and cooling. Includes hot water and chilled water systems using forced circulation as the transfer medium.
Lecture Hours 3
Lab hours 3

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

Eligible for NCCER Level 1 Electrical

Summer

AIR 116 - Duct Construction and Maintenance

2 Credits

Presents duct materials including sheet metal, aluminum, and fiber glass. Explains development of duct systems, layout methods, safety hand tools, cutting and shaping machines, fasteners and fabrication practices. Includes duct fittings, dampers and regulators, diffusers, heater and air washers, fans, insulation, and ventilating hoods.
Lecture Hours 1
Lab hours 2

AIR 282 - Energy Management II

2 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part II of II.
Lecture Hours 1
Lab hours 2
Note Typically Offered: Spring/Summer

Second Year Fall

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer
Social Science Elective 3 Credits

Total Program Credits: 48

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Air Conditioning and Refrigeration, CSC

Purpose

The Air Conditioning and Refrigeration Career Studies Certificate is designed to provide the job skills necessary for employment aa an entry level HVAC service technician. Special emphasis is placed upon the installation and repairing of residential and commercial air conditioning units.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Apply the principles and strategies used for the installation of air condition systems, heat pump systems, electric furnace, fossil fuel furnace, and system controls.
3. Apply the principles and strategies used to troubleshoot and service air condition systems, heat pump systems, electric furnaces, fossil fuel furnace, and system controls.
4. Recognize components and design principles used in air distribution systems.
5. Use mathematical skills to solve problems in electrical, heating, and air conditioning systems.
6. Apply troubleshooting skills to diagnose and repair the following: air distribution, heating systems, cooling systems, and system controls.
7. Use tools and equipment required for repairing, testing, and installation of air conditioning systems, Refrigeration systems, heat pump systems, electric furnace, fossil fuel furnace, and system controls.
8. Handle refrigerant by completing EPA Section 608 Type II Technician Certification.

Employment Opportunities

The certificate in Air Conditioning and refrigeration is designed to prepare graduates for occupations such as Air Conditioning Service & Installation technicians.

For Further Information, Contact:

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Program of Study

First Year Fall

AIR 111 - Air Condition & Refrigeration Controls I

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 121 - Air Conditioning and Refrigeration I

4 Credits

Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Part I of II.
Lecture Hours 3
Lab hours 3

AIR 210 - Air Conditioning and Refrigeration Analysis

4 Credits

Reviews principles of refrigeration and air conditioning. Studies components, types and applications. Includes types of refrigeration systems such as multistage and cascade, selection and balancing of major components, and absorption systems.
Lecture Hours 3
Lab hours 3

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local

regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

Eligible for NCCER HVACR Level 1 Certification

Total Program Credits: 17

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Construction, CSC

Purpose

The Building Construction program is designed to provide the job skills necessary for employment as an entry level construction technician. This program is designed to be flexible and meet industry needs as they arise. This program is not offered continuously and admission is by permission only .

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Apply basic construction math so solve problems.
4. Gain an NCCER certification in Core curriculums.
5. Gain the ability to Communicate and demonstrate good working practices with other workers.
6. Apply technical construction skill particular to the concentration.

Employment Opportunities

The certificate in Construction is designed to prepare graduates for occupations such as entry level construction trades.

Program Requirements

Participants must be enrolled in a specific cohort with permission.

For Further Information, Contact:

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Program of Study

First Year Fall

BLD 105 - Shop Practices & Procedures

2 Credits

Introduces basic hand and power tools with emphasis on proper care and safety practices. Introduces materials used in building trades including metals, plastics, and woods with stress placed on the processing techniques of each. Emphasizes fasteners such as screws, rivets, and glues as well as brazed, soldered, and welded joints.
Lecture Hours 1
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SAF 295 - Topics in Construction Work Zone Safety

3 Credits

Provides an opportunity to explore topical areas of interest to or needed by students. Includes Virginia DOT Work zone safety intermediate certification. May be used also for special honors courses. May be repeated for credit. Variable hours.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

SAF 195 - Topics in Construction Safety

1 Credits

Provides an opportunity to explore topical areas of interest to or needed by students. Construction Service Equipment Operation and safety, including Chainsaw, forklift and other specialty construction equipment. May be used also for special honors courses. May be repeated for credit. Variable hours.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

HLT 106 - First Aid and Safety

2 Credits

Focuses on the principles and techniques of safety and first aid.
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

IND 149 - Workplace Ethics

1 Credits

Provides a broad overview of ethics in the modern day business world including workforce skill building and self awareness through group discussions. Discusses workplace topics such as diversity, substance abuse, hiring and firing and workplace practices, appropriate dress, communication, business ethics, and interviewing.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ELE 148 - Power Distribution Systems

3 Credits

Introduces transmission and distribution of electrical power. Includes application of transformers, distribution and over-current protection devices, substations, switchboards, feeders, bus-ways, motor control centers, generators, motors, and troubleshooting techniques associated with these systems and devices.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Construction Core Certification

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

NOTE: For Lineman Elective is ELE 148 - Power Distribution Systems; for RSVP Elective is BLD 295 - Topics in Construction .

Electrical Fabricator, CSC

Purpose

The Electrical Fabricator program is designed to help students gain an understand of basic electrical theory, installation, and manufacturing. This certificate is designed to help students who are installing electrical devices in a manufacturing setting.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand troubleshooting techniques.
4. Gain knowledge of the National Electrical Code.
5. Gain an NCCER certification in Electrical and Core curriculums.
6. Gain the ability to communicate and demonstrate good working practices with other workers.
7. Demonstrate common wiring methods of residential standards.

Employment Opportunities

This certificate is designed to provide entry level opportunities in installing electrical systems in manufacturing.

For Further Information, Contact:

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Program of Study

First Year Spring

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.

Lecture Hours 3
Note Typically Offered: Fall/Spring

ELE 110 - Home Electric Power

3 Credits

Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, transformers. Includes study of the national electrical code, purpose and interpretation.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

ELE 132 - National Electrical Code II

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

ETR 143 - Devices and Applications I

3 Credits

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their parameters, FETs, and operational amplifiers. May include UJTs, oscillators, RF amplifiers, thermionic devices and others. Part I of II. Co-requisite: knowledge of D.C./A.C. theory or permission of instructor.
Corequisite ELE 140 or knowledge of D.C./A.C. theory with divisional approval
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety

standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Eligible for OSHA 10, NCCER Core and Electrical Level I Certifications

Total Credits: 17

Electricity, CSC

Purpose

The Electricity Career Studies Certificate is designed to provide the job skills necessary for employment as an entry level electrical technician. Special emphasis is placed upon the installation and repairing of residential electrical distribution systems.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand troubleshooting techniques.
4. Gain knowledge of the National Electrical Code.
5. Gain an NCCER certification in Electrical, and Core curriculum.
6. Gain the ability to Communicate and demonstrate good working practices with other workers.
7. Demonstrate common wiring methods of residential standards.

Employment Opportunities

The career studies certificate in Electricity is designed to prepare graduates for occupations such as electricians helpers and entry level electricians.

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Program of Study

First Year Fall

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

AIR 111 - Air Condition & Refrigeration Controls I

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II.
Lecture Hours 2
Lab hours 2

ELE 110 - Home Electric Power

3 Credits

Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, transformers. Includes study of the national electrical code, purpose and interpretation.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Construction Core and Electrical Level 1 Certifications

Total Program Credits: 17

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Energy Technology - Electrical Emphasis, CSC

Purpose

Graduates of the Energy Technology Electrical Emphasis Career Studies program are trained in the job skills necessary for employment as an entry level Electrical technician in both commercial and residential fields. These fields include leading edge technologies such as Solar PV and storage.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand troubleshooting techniques.
4. Gain knowledge of the National Electrical Code.
5. Gain an NCCER certification in Electrical.
6. Gain the ability to Communicate and demonstrate good working practices with other workers.
7. Demonstrate common wiring methods of both residential and commercial standards.
8. Demonstrate wiring methods for alternative energy using solar electricity.

Employment Opportunities

Graduates will find employment in various industries and service sectors as entry level electrical technicians.

Program Requirements

Students may receive college credit for verified on-the-job experience.

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Program of Study

First Year Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college

and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Electrical Level 1 Certification

First Year Spring

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

ELE 132 - National Electrical Code II

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

ETR 143 - Devices and Applications I

3 Credits

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their parameters, FETs, and operational amplifiers. May include UJTs, oscillators, RF amplifiers, thermionic devices and others. Part I of II. Co-requisite: knowledge of D.C./A.C. theory or permission of instructor.
Corequisite ELE 140 or knowledge of D.C./A.C. theory with divisional approval
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Total Program Credits: 23

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Energy Technology - Electrical Specialization, AAS

Purpose

Graduates of the Energy Technology Electrical Specialization program are trained in the job skills necessary for employment as an entry level electrician in both commercial and residential fields. Course work includes a strong emphasis in electrical technology with related courses in computer applications, quality control, teamwork and communication.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand the installation of HVAC units for both residential and commercial.
4. Demonstrate and understand troubleshooting techniques.
5. Gain knowledge of the National Electrical Code.
6. Gain an NCCER certification in Electrical, Core and HVAC.
7. Gain the ability to communicate and demonstrate good working practices with other workers.
8. Demonstrate common wiring methods of both residential and commercial standards.

Employment Opportunities

Graduates can expect to find positions as entry level or apprentice electricians in various industries and service sectors.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Program of Study

First Year Fall

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

AIR 111 - Air Condition & Refrigeration Controls I

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible for NCCER Construction Core and Electrical Level 1 Certification

First Year Spring

ELE 132 - National Electrical Code II

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

AIR 112 - Air Condition & Refrigeration II

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part II of II.
Lecture Hours 2
Lab hours 2

ETR 143 - Devices and Applications I

3 Credits

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their

parameters, FETs, and operational amplifiers. May include UJTs, oscillators, RF amplifiers, thermionic devices and others. Part I of II. Co-requisite: knowledge of D.C./A.C. theory or permission of instructor.
Corequisite ELE 140 or knowledge of D.C./A.C. theory with divisional approval
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

ELE 110 - Home Electric Power

3 Credits

Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, transformers. Includes study of the national electrical code, purpose and interpretation.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

ITE 102 - Computers and Information Systems

1 Credits

Introduces terminology, concepts, and methods of using computers in information systems. This course teaches computer literacy, not intended for Information Technology majors.
Lecture Hours 1
Note Typically Offered: Spring

Summer

ENE 110 - Solar Power Installations

4 Credits

Covers wiring, control, conversion, and ties to established power systems. Studies use of invertors, batteries, and charging systems.
Prerequisite ELE 157 or equivalent.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.
Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible for NCCER Solar Power Certification

Second Year Fall

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 177 - Photovoltaic Energy Systems

4 Credits

Teaches techniques for conduct site surveys, installing system components, installing inverters and performing system sizing and system maintenance. Introduces different battery configurations, and charge controllers. Introduces safety, system design and layout, National Electric Code, Component Selection, wiring and installation techniques.
Lecture Hours 3

Lab hours 3
Note Typically Offered: Fall/Spring

Second Year Spring

ETR 218 - Industrial Electronics Circuit

4 Credits

Introduces the principles of industrial measurements and control: electrical, electronic, mechanical, thermal, and optical measuring and records, and actuators, electronic instrumentation control devices and circuits.
Prerequisite ELE 239
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

ELE 290 - Coordinated Internship in ELE

3 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
Note Typically Offered: Check Course Availability

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer
Humanities Elective 3 Credits
Social Science Elective 3 Credits

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Energy Technology - HVAC Emphasis, CSC

Purpose

Graduates of the Energy Technology HVAC Emphasis Career Studies program are trained in the job skills necessary for employment as an entry level HVAC technician in both commercial and residential fields. These fields include leading edge technologies such as geothermal, and solar thermal systems.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand the installation of HVAC units for both residential and commercial, Loads and calculations.
4. Demonstrate and understand troubleshooting technique.
5. Gain an NCCER certification in Electrical and start the HVAC NCCER.
6. Gain the ability to Communicate and demonstrate good working practices with other workers.

Employment Opportunities

Graduates will find employment in various industries and service sectors as HVAC technicians

Program Requirements

Students may receive college credit for verified on-the-job experience.

For Further Information, Contact:

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Program of Study

First Year Fall

AIR 210 - Air Conditioning and Refrigeration Analysis

4 Credits

Reviews principles of refrigeration and air conditioning. Studies components, types and applications. Includes types of refrigeration systems such as multistage and cascade, selection and balancing of major components, and absorption systems.
Lecture Hours 3
Lab hours 3

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1

Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for CPR Certification

First Year Spring

AIR 154 - Heating Systems I

3 Credits

Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 205 - Hydronics and Zoning

4 Credits

Presents installation, servicing, troubleshooting, and repair of hydronic systems for heating and cooling. Includes hot water and chilled water systems using forced circulation as the transfer medium.
Lecture Hours 3
Lab hours 3

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

Eligible for NCCER Electrical Level 1 Certification

Total Program Credits: 23

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Energy Technology, AAS

Purpose

Graduates of the Energy Technology program are trained in the job skills necessary for employment as an entry level HVAC/Electrical technician in both commercial and residential fields. These fields include leading edge technologies such as geothermal, solar PV installation, and solar thermal systems. Graduates will find employment in various industries and service sectors as HVAC technicians or electricians.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand reading of blue prints and building design, and schematic.
3. Demonstrate and understand the installation of HVAC units for both residential and commercial, Loads and calculations.
4. Demonstrate and understand troubleshooting techniques.
5. Gain knowledge of the National Electrical Code.
6. Gain an NCCER certification in Electrical and start the HVAC NCCER.
7. Gain the ability to Communicate and demonstrate good working practices with other workers.

Employment Opportunities

Graduates can expect find as entry level or apprentice HVAC technicians or electricians in the residential or commercial construction industries or as industrial maintenance technicians.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jerry Ramey
jramey@mecc.edu
276.523.9089

Bryce Shular
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276.523.9091

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

AIR 121 - Air Conditioning and Refrigeration I

4 Credits

Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Part I of II.
Lecture Hours 3
Lab hours 3

AIR 111 - Air Condition & Refrigeration Controls I

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 210 - Air Conditioning and Refrigeration Analysis

4 Credits

Reviews principles of refrigeration and air conditioning. Studies components, types and applications. Includes types of refrigeration systems such as multistage and cascade, selection and balancing of major components, and absorption systems.
Lecture Hours 3
Lab hours 3

AIR 281 - Energy Management I

3 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part I of II.
Lecture Hours 2
Lab hours 2
Note Typically offered: Fall/Spring

ELE 131 - National Electrical Code I

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part I of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students are eligible for NCCER HVACR Level 1 Certification

First Year Spring

AIR 112 - Air Condition & Refrigeration II

3 Credits

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. Part II of II.
Lecture Hours 2
Lab hours 2

AIR 154 - Heating Systems I

3 Credits

Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Part I of II.
Lecture Hours 2
Lab hours 2

AIR 205 - Hydronics and Zoning

4 Credits

Presents installation, servicing, troubleshooting, and repair of hydronic systems for heating and cooling. Includes hot water and chilled water systems using forced circulation as the transfer medium.

Lecture Hours 3
Lab hours 3

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

Students are eligible for NCCER Electrical Level 1 Certification

Summer

AIR 116 - Duct Construction and Maintenance

2 Credits

Presents duct materials including sheet metal, aluminum, and fiber glass. Explains development of duct systems, layout methods, safety hand tools, cutting and shaping machines, fasteners and fabrication practices. Includes duct fittings, dampers and regulators, diffusers, heater and air washers, fans, insulation, and ventilating hoods.
Lecture Hours 1
Lab hours 2

AIR 282 - Energy Management II

2 Credits

Introduces methodology for residential audits covering heat flow analysis, construction methods and materials. Discusses effects of life styles on energy consumption, conservation and practices, renewable energy sources, calculating cost and savings, interviewing and education techniques. Introduces commercial and industrial energy audits, methodology for the performance of audits covering heat flow analysis, construction methods and materials. Part II of II.
Lecture Hours 1
Lab hours 2
Note Typically Offered: Spring/Summer

ENE 110 - Solar Power Installations

4 Credits

Covers wiring, control, conversion, and ties to established power systems. Studies use of invertors, batteries, and charging systems.
Prerequisite ELE 157 or equivalent.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

Students are eligible for NCCER Solar Power Certification

Second Year Fall

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 102 - Computers and Information Systems

1 Credits

Introduces terminology, concepts, and methods of using computers in information systems. This course teaches computer literacy, not intended for Information Technology majors.
Lecture Hours 1
Note Typically Offered: Spring

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Students are eligible for CPR Certification

Second Year Spring

ELE 132 - National Electrical Code II

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

ELE 290 - Coordinated Internship in ELE

3 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
Note Typically Offered: Check Course Availability

Humanities Elective 3 Credits
Social Science Elective 3 Credits

Total Program Credits: 66

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Solar Installer I, CSC

Purpose

The Solar Installer I program is designed to help students gain an understand of how grid-tie solar systems work and become entry-level installers.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate the knowledge of safe working practices and procedures.
2. Demonstrate and understand installation of solar equipment.
3. Demonstrate and understand troubleshooting techniques.
4. Gain knowledge of the National Electrical Code.
5. Gain an NCCER certification in Electrical and Core curriculums.
6. Gain the ability to communicate and demonstrate good working practices with other workers.
7. Demonstrate common wiring methods of residential standards.

Employment Opportunities

This certificate is designed to provide entry level opportunities in the solar industry.

For Further Information, Contact:

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276.523.9091

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Spring

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ELE 132 - National Electrical Code II

3 Credits

Provides comprehensive study of the purpose and interpretations of the National Electric Code as well as familiarization and implementation of various charts, code rulings and wiring methods including state and local regulations. Part II of II.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

ITE 102 - Computers and Information Systems

1 Credits

Introduces terminology, concepts, and methods of using computers in information systems. This course teaches computer literacy, not intended for Information Technology majors.
Lecture Hours 1
Note Typically Offered: Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Construction Core Certification

Summer

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.
Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

ENE 110 - Solar Power Installations

4 Credits

Covers wiring, control, conversion, and ties to established power systems. Studies use of invertors, batteries, and charging systems.
Prerequisite ELE 157 or equivalent.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Eligible For OSHA 10 and NCCER Solar Power Certification

Total Program Credits: 16

Welding Operator I, CSC

Purpose

The Welding Operator I career studies certificate is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the program.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using oxyfuel and plasma arc cutting processes.
3. Weld in flat, horizontal, vertical and overhead positions using the basic welding processes of SMAW and GTAW.
4. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Career Studies Certificate in Welding Operator I will prepare students for the occupational goal of an entry level welder.

Program Requirements

Articulation course credits may be earned by the validation of welding skills learned in a vocational school or on-the-job experience.

For Further Information, Contact:

Jimmy Pittman
jpittman@mecc.edu
276.523.9082

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Core and Welding Level One Certification

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding Operator II, CSC

Purpose

The Welding Operator II career studies certificate is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the program.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using oxyfuel and plasma arc cutting processes.
3. Weld in flat, horizontal, vertical and overhead positions using the basic welding processes of GMAW and FCAW.
4. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Career Studies Certificate in Welding Operator II will prepare students for the occupational goal of an entry level welder.

Program Requirements

Articulation course credits may be earned by the validation of welding skills learned in a vocational school or on-the-job experience.

For Further Information, Contact:

Jimmy Pittman
jpittman@mecc.edu
276.523.9082

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Welding Level Two Certification with Completion of Level One

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding, AAS

Purpose

Graduates of the Technical Studies Welding program are trained in the job skills necessary to enter employment as apprentice welders immediately upon completion of the curriculum. Course work includes a strong emphasis in welding technology with related courses in computer applications, quality control, teamwork, and communication.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using (oxyfuel and plasma arc) cutting processes .
3. Weld in (flat, horizontal, vertical and overhead positions) using the basic welding processes of SMAW, GMAW, FCAW and GTAW..
4. Apply basic math and measurement.
5. Read and interpret basic blueprints and welding symbols to fabricate components.
6. Know the basic fundamentals of welding processes and applications, metallurgy.
7. Demonstrates professional and ethical work behavior.

Employment Opportunities

Graduates can expect to find employment as welders in a variety of industries including mining, manufacturing and construction.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Up to 15 hours credit may be given for documented previous work experience and certifications. Although the program is designed to educate and train welders entering the industry, the program offers increased skill levels and knowledge for experienced welders as well. Welders seeking a degree or desiring promotion to upper level managerial positions should also take advantage of this excellent opportunity.

For Further Information, Contact:

Jimmy Pittman

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276.523.9082

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Summer

WEL 129 - Pipefitting and Fabrication

3 Credits

Reviews basic mathematical skills necessary for the pipefitting trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, tees, odd angle elbows, 90 degree elbows, and the use of pipefitting and layout tools. May be taken with WEL 126.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 126 - Pipe Welding I

3 Credits

Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME code.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Second Year Fall

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

- ENG 113 - Technical-Professional Writing **3 Credits**

Second Year Spring

- Math/Science Elective **3 Credits**

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

- Social Science Elective **3 Credits**

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Eligible for NCCER Welding Level 1 Certification

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding, C

Purpose

The Certificate in Welding is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the majority of the program. The remaining courses are in related subjects and general education.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using (oxyfuel and plasma arc) cutting processes.
3. Weld in (flat, horizontal, vertical and overhead positions) using the basic welding processes of SMAW, GMAW, FCAW and GTAW.
4. Apply basic math and measurement.
5. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Certificate in Welding will prepare students for the occupational goal of welder.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Matthew Rose, Dean
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276.523.7431

Program of Study

First Year Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible for NCCER Construction Core and Welding Level One Certification

First Year Spring

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety

procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible For CPR And Welding Level Two Certification

First Year Summer

WEL 126 - Pipe Welding I

3 Credits

Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME code.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 129 - Pipefitting and Fabrication

3 Credits

Reviews basic mathematical skills necessary for the pipefitting trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, tees, odd angle elbows, 90 degree elbows, and the use of pipefitting and layout tools. May be taken with WEL 126.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Fall

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 115 - Technical Writing

3 Credits

Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. This course applies to career/technical education (CTE) programs. ENG 113 serves both transfer and CTE programs.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

Humanities Elective **3 Credits**

Total Program Credits: 50

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Early Childhood Education (Career Pathway)

Early Childhood Development Special Needs

Purpose

The Career Studies Certificate (CSC) in Special Needs allows individuals working in early childhood development and K-6 educators to gain valuable strategies for educating a special (and growing) population of under served students. Students will learn to better understand children with special needs, including individuals with Autism Spectrum Disorder, and will learn how to design curricula to be more accessible to all children. A comprehensive internship is included wherein students will gain hands-on experience working in special needs programs.

Completers of this CSC can sit for the International Board of Credentialing and Continuing Education Standards (IBCCES) credential exam. IBCCES is a leading provider of specialized credentials in the fields of cognitive disorders and neurodivergences. The Autism Certificate requires at least 14 hours of continuing education credits relating to autism. MECC's program will provide those credit hours, after which students may elect to take the online Autism Certificate Competency Exam. Please note there is an exam fee charged by IBCCES that is not affiliated with MECC. Upon passing the exam, students will receive a certification number, a printed certificate, a wallet ID card, a digital badge, and the student will be listed in the International Registry as an Autism Certificate holder. The IBCCES certification, while valued by employers, is **not** required by MECC and will not impact completion of MECC's degree.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Identify and refer children in need of further evaluation by a licensed professional for possible diagnosis such as Autism Spectrum Disorder.
2. Develop plans for addressing a child's special needs in the classroom or caretaking arrangement.
3. Utilize effective behavior management techniques.
4. Build accessible, inclusive environments for all children.

Employment Opportunities

Completion of this program opens a variety of doors, including possible careers as behavioral therapists at local organizations such as Blue Mountain Therapy. Current educators will also improve their skills and overall employability through the creation of more accessible classroom environments. Speak with an advisor to learn how to transition this certificate into a transfer degree for K-6 special education teachers.

For Further Information, Contact:

Ms. Melissa McKinney
mmckinney@mecc.edu
276.523.9035

Dr. Ted Booth, Dean
tbooth@mecc.edu
276.523.9038

First Semester

CHD 164 - Working with Infants and Toddlers in Inclusive Settings

3 Credits

Examines developmental and behavioral principles and practices and how these provide the most developmentally suitable curriculum and learning environment for very young children. Includes working with very young children with typical development, as well as those who are gifted, or have developmental delays or disabilities.
Lecture Hours 3
Note Typically Offered: Fall/Spring

CHD 210 - Introduction to Exceptional Children

3 Credits

Reviews the history of and legal requirements for providing intervention and educational services for young children with special needs. Studies the characteristics of children with a diverse array of needs and developmental abilities. Explores concepts of early intervention, inclusion, guiding behavior and adapting environments to meet children's needs.
Lecture Hours 3
Note Typically Offered: Fall/Spring

EDU 270 - Introduction to Autism Spectrum Disorders

3 Credits

Explores the nature of autism and related development disorders. Includes an exploration of assessment measures and diagnostic criteria. Discusses intervention strategies to support students in school settings.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

EDU 271 - Methodologies and Curriculum Development for Children with Autism Spectrum Disorders

3 Credits

Details current methodologies used when treating and teaching students with ASD. Emphasizes evidence based intervention strategies such as Assessment of Basic Learning and Language Skills (ABLLS), Verbal Behavior, Picture Exchange Communication System (PECS), and the use of visual schedules. Part II of III.
Prerequisite EDU 270
Corequisite EDU 270
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

CHD 290 - Coordinated Internship in Early Childhood Special Needs Program

3 Credits

Supervises on-the-job training in selected businesses coordinated by the college.
Note Typically Offered: Fall/Spring

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Total Program Credits: 16

Early Childhood Development, CSC

Purpose

This program is designed as an introduction to the field. The curriculum is designed to provide entry-level competencies documented by Virginia's Competencies for Early Childhood Professionals. These competencies include health, safety and nutrition, understanding child growth and development, appropriate child observation and assessment, partnering with families and community, learning environment, effective interactions, program management, teacher qualifications and professional development curriculum. Additionally, this program provides the necessary CPR training for young children desired by many employment agencies.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Recognize the stages of early childhood development.
2. Utilize the arts and other creative developmentally appropriate activities for young children.
3. Use developmentally appropriate practices to plan activities to stimulate the logical thinking skills in children
4. Create positive ways to build self-esteem in children and to help them develop self-control.

Employment Opportunities

Upon completion of the Early Childhood Career Studies Certificate graduates possess the knowledge and skills required for entry into Early Childhood Educational facilities such as, Head Start and Early Head Start programs, family day care homes, and preschool programs. Graduates will also be equipped to apply for a minimum of two Early Childhood Endorsements from the Virginia Department of Social Services (VDSS).

Program Requirements

The Code of Virginia restricts who may legally provide child care in Virginia. Most agencies require a criminal background check through the Virginia State Police Department and a child abuse or neglect check through the Virginia Department of Social Services before employment involving contact with young children. In addition, some child care facilities and schools may require proof of specific vaccinations and health related tests for students to complete their supervised workplace experiences.

For Further Information, Contact:

Ms. Melissa McKinney
mmckinney@mecc.edu
276.523.9035

Dr. Ted Booth, Dean of Arts and Sciences
tbooth@mecc.edu
276.523.9038

Program of Study

First Semester

CHD 120 - Introduction to Early Childhood Education

3 Credits

Introduces early childhood development through activities and experiences in early childhood, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures, and use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures.
Lecture Hours 3
Note Typically Offered: Fall/Spring

CHD 145 - Teaching Art, Music, and Movement to Children

3 Credits

Focuses on children's exploration, play, and creative expression in the areas of art, music, and movement. Emphasis will be on developing strategies for using various open-ended media representing a range of approaches in creative thinking. Addresses strategies for intervention and support for exceptional children and English Language Learners.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

CHD 205 - Guiding the Behavior of Children

3 Credits

Explores the role of the early childhood educator in supporting emotional and social development of children, and in fostering a sense of community. Presents practical strategies for encouraging prosocial behavior, conflict resolution and problem solving. Emphasizes basic skills and techniques in child guidance.
Lecture Hours 3
Note Typically Offered: Fall/Spring

HLT 135 - Child Health and Nutrition

3 Credits

Focuses on the physical needs of the preschool child and the methods by which these are met. Emphasizes health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety as related to health growth and development.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CHD 165 - Observation & Participation in Early Childhood/Primary Settings

3 Credits

Focuses on observation as the primary method for gathering information about children in early childhood settings.

Emphasizes development of skills in the implementation of a range of observation techniques. Includes 40 hours of field placement in early learning setting.
Note Typically Offered: Fall/Spring

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Engineering (Career Pathway)

3-D Design, CSC

Purpose

Classes offered in the 3-D Design Technology program will introduce you to design techniques that will prepare you to work in engineering technology fields. All of the courses taken are in the Computer-Aided Drafting and Design Technology curriculum. Students will take courses in related areas only. MECC utilizes CADD operations extensively. 3-D software programs are available and used extensively. These programs are the most widely used in industry in our service area. 3-D Design classes are available to day and evening students.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Demonstrate knowledge of drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline.
3. Demonstrate the ability to develop and /or interpret 2-D and 3-D projects to solve common engineering problems.
4. Illustrate the engineering design process from the transformation of an idea or need into a completed project.

For Further Information, Contact:

Jake Gilly
jgilly@mecc.edu
276.523.9086

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

DRF 298 - Seminar & Project in Drafting

4 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 6
Note Typically Offered: Spring/Summer

First Year Spring

DRF 233 - Computer Aided Drafting III

3 Credits

Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system.
Lecture Hours 1
Lab hours 3
Note Typically Offered: Spring

MEC 122 - 3D Printing Engineering Design

3 Credits

Provides an overview of rapid technologies in Additive Manufacturing that are high productivity tools designed to cut lead times, reduce time to market, increase the quality of the product, and improve collaboration within the organization.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Total Program Credits: 17

Notes and Additional Curriculum Options

*Please consult with your advisor on the availability of courses and possible prerequisites and course substitutions.

Computer-Aided Drafting and Design Technology, AAS

Purpose

Classes offered in the Computer-Aided Drafting & Design Technology major program will introduce you to architectural and mechanical design that will prepare you to work as a drafts person. Approximately one-half of the courses taken are in drafting and design technology. Students will also take courses in related areas and general education. MECC utilizes CADD operations extensively. Micro-Station PC, AutoCADD, and 3-D software programs are available. These programs are the most widely used in industry in our service area. Computer-Aided Drafting & Design Technology major classes are available to evening students.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate knowledge of drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline.
2. Perform and support estimating functions including quantity, types, costs, labor requirements, equipment, and scheduling functions.
3. Demonstrate the ability to develop and/or interpret 2-D and 3-D projects to solve common engineering problems.
4. Illustrate the engineering design process from the transformation of an idea or need into a completed project.
5. Develop quantitative reasoning skills useful in working in industry.
6. Collaborate with team members to identify and evaluate solutions to engineering problems.

Employment Opportunities

Successful completion of the Associate of Applied Science degree in the Computer-Aided Drafting & Design Technology major will prepare you for employment in areas in drafting and design including: mechanical, architectural, structural steel, and civil engineering.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jake Gilly
jgilly@mecc.edu
276.523.9086

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

UMS 107 - Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School

3 Credits

Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small

Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate.
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

DRF 233 - Computer Aided Drafting III

3 Credits

Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system.
Lecture Hours 1
Lab hours 3
Note Typically Offered: Spring

GIS 201 - Geog Info Systems II

3 Credits

Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decision-making, modeling, programming, and data management. Covers map projections and data formats, and methods for solving the problems they create.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring/Summer

DRF 201 - Computer Aided Drafting & Design I

3 Credits

Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

- Personal Development Elective **1 Credits**

- Technical Elective **3 Credits**

MEC 122 - 3D Printing Engineering Design

3 Credits

Provides an overview of rapid technologies in Additive Manufacturing that are high productivity tools designed to cut lead times, reduce time to market, increase the quality of the product, and improve collaboration within the organization.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Second Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 171 - Surveying I

3 Credits

Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography.
Prerequisite MTH 111
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

DRF 231 - Computer Aided Drafting I

3 Credits

Teaches computer aided drafting concepts and equipment designed to develop a general understanding of components and operate a typical CAD system.
Lecture Hours 1
Lab hours 2
Note Typically Offered: Fall

GIS 205 - GIS 3 Dimensional Analysis

3 Credits

Introduces GIS 3D (three-dimensional) concepts and practices with a concentration on displaying, creating and analyzing spatial GIS data using 3D. Covers 3D shape files, 3D data formats such as Tins, DEMs, grids and controlling the perspective and scale of 3D data through rotating, panning and zooming.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Summer

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

- Social Science Elective **3 Credits**

Second Year Spring

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

GIS 210 - Understanding Geographic Data

3 Credits

Provides the student an introduction to geographic data and the principles behind their construction. Introduces the concepts for measuring locations and characteristics of entities in the real world. Exposes the student to the limitations and common characteristics of geographic data.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

CIV 172 - Surveying II

3 Credits

Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork and other topics related to transportation construction.
Prerequisite CIV 171
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

DRF 232 - Computer Aided Drafting II

3 Credits

Teaches advanced operation in computer-aided drafting.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

DRF 298 - Seminar & Project in Drafting

4 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 6
Note Typically Offered: Spring/Summer

or

DRF 290 - Coordinated Internship in Drafting

4 Credits

In order to apply drafting design and technology theory to practice, this cooperative venture will allow students to participate in on-site training in actual industrial setting. Appropriate placement will be with local industries which have drafting and design departments. Variable hours per week.
Lecture Hours 0
Lab hours 4
Note Typically Offered: Spring/Summer

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Geographic Information Systems, CSC

Purpose

Classes offered in the Geographic Information Systems (GIS) program will provide a hands-on approach to education that will prepare you to work with GIS in the field. The program will prepare you to address advanced topics in problem solving, decisionmaking, modeling, programming, and data management, using 2-D and 3-D data.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Comprehend fundamental concepts and practices of Geographic Information Systems (GIS).
2. Demonstrate organizational skills in file and database management.
3. Give examples of interdisciplinary applications of Geospatial Information Science and Technology.
4. Apply GIS analysis to address geospatial problems and/or research questions.
5. Manipulate data for the purpose of analysis, presentation, and decision-making.
6. Recognize, gather, and process data for GIS.
7. Display, create and analyze 2-D and 3-D spatial GIS data.

Employment Opportunities

Successful completion of the career studies certificate in Geographic Information Systems (GIS) will prepare you for employment in areas of GIS including: GIS Technician, Civil and Municipal Planning, Cartographic Design, GIS Analysis, Computer modeling.

For Further Information, Contact:

Jake Gilly

jgilly@mecc.edu

276.523.9086

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

GIS 201 - Geog Info Systems II

3 Credits

Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decision-making, modeling, programming, and data management. Covers map projections and data formats, and methods for solving the problems they create.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring/Summer

GIS 205 - GIS 3 Dimensional Analysis

3 Credits

Introduces GIS 3D (three-dimensional) concepts and practices with a concentration on displaying, creating and analyzing spatial GIS data using 3D. Covers 3D shape files, 3D data formats such as Tins, DEMs, grids and controlling the perspective and scale of 3D data through rotating, panning and zooming.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Summer

GIS 210 - Understanding Geographic Data

3 Credits

Provides the student an introduction to geographic data and the principles behind their construction. Introduces the concepts for measuring locations and characteristics of entities in the real world. Exposes the student to the limitations and common characteristics of geographic data.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

DRF 298 - Seminar & Project in Drafting

4 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2

Lab hours 6
Note Typically Offered: Spring/Summer

or

DRF 290 - Coordinated Internship in Drafting

4 Credits

In order to apply drafting design and technology theory to practice, this cooperative venture will allow students to participate in on-site training in actual industrial setting. Appropriate placement will be with local industries which have drafting and design departments. Variable hours per week.
Lecture Hours 0
Lab hours 4
Note Typically Offered: Spring/Summer

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Environmental (Career Pathway)

Environmental Science - Water/Wastewater Specialization, AAS

Purpose

The Water/Wastewater Major student will take course work from a wide array of natural resource offerings. These courses stress the practical application of scientific principles to the treatment of water for human consumption and for protection of water resources.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Possess the knowledge and skills necessary to succeed in an entry-level position in a water/wastewater treatment facility.
2. Become knowledgeable about processes and equipment used in water treatment, water distribution, wastewater collection and wastewater treatment.
3. Demonstrate knowledge of the procedures related to water and wastewater treatment processes.
4. Demonstrate basic knowledge of microbiology and chemistry applicable to water and wastewater treatment.
5. Demonstrate knowledge of the principles of hydraulic systems as related to water and wastewater systems.
6. Analyze and solve operational problems and perform mathematical calculations related to water and wastewater treatment processes.
7. Describe major concepts, theories, and classic research studies in environmental science.
8. Operate a treatment plant in a respectable and ethical manner as dictated by state and federal regulations.

Employment Opportunities

The Associate of Applied Science degree program in Environmental Science is designed to prepare students for employment in municipal and industrial treatment facilities and laboratories. State agencies and private companies also employ MECC Environmental Science graduates. As environmental concerns continue to make news headlines, the job market continues to expand.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Distance Education Option: The entire Water/Wastewater Program can be completed through distance education courses. All technical courses are available through at water.mecc.edu. All support courses are available through web-based instruction. Opportunities for Advancement: Coursework in the Water/Wastewater major prepares students for

the state certification exam required for a water or wastewater operator's license. This license is essential for career advancement. Students will also be able to keep abreast of technological advances in the field of environmental science, thus furthering career opportunities in this and related fields.

For Further Information, Contact:

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276.523.9088

Rosa Cooke

rcooke@mecc.edu

276.523.9083

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENV 110 - Intro Waste/Water Trmt Tech

3 Credits

Provides entry-level students with a general overview of the entire water supply, treatment, and disposal system. Traces water supply from raw state through treatment, storage, distribution, use, waste collection, and discharge back to the environment. Covers aspects of water supply and wastewater treatment.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 220 - Environmental Problems

3 Credits

Studies the relationship of man to his environment; ecological principles, population dynamics, topics of current importance including air, water, and noise pollution; poisoning and toxicity, radiation, conservation and management of natural resources.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SCT 111 - Introduction to Environmental & Science Technology I

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part I of II. Must be taken in sequence.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ENV 115 - Water Purification

3 Credits

Explores principles of water purification including secretion, sedimentation, rapid sand filtration, chlorination,

treatment, and prevention of disease. Studies fundamentals of bacteriology, mycology, and parasitology, emphasizing their relationships to community health. Includes soil, water, wastewater, and industrial microbiology.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

NAS 106 - Conservation of Natural Resources

3 Credits

Describes the management of natural resources, balance of nature, and the human impact on the environment.
Lecture Hours 3
Note Typically Offered: Spring

SCT 112 - Introduction to Environmental and Science Technology II

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part II of II. Must be taken in sequence.
Prerequisite SCT 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

- Technical Elective **3 Credits**

Second Year Fall

ENV 108 - Environmental Microbiology

3 Credits

Studies characteristics and activities of micro-organisms, showing their essential relation to diagnosis, treatment, and prevention of disease. Explores fundamentals of bacteriology, mycology, and parasitology, emphasizing their relationships to community health. Includes soil, water, wastewater, and industrial microbiology.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 149 - Wastewater Treatment Plant Ope

3 Credits

Teaches principles, practices and desired function and operation of a variety of wastewater treatment unity processes. Evaluates the operation of processes by determination of the information and testing required for evaluation and performing the subsequent necessary calculations.
Lecture Hours 2

Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 227 - Environmental Law

3 Credits

Introduces environmental law including the history of environmental laws, the National Environment Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 246 - Water Resource Technology

3 Credits

Introduces the elements of hydrology and hydraulic systems.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

- Social Science Elective **3 Credits**
- Health or PE Elective **1 Credits**

Second Year Spring

CIV 240 - Fluid Mechanics and Hydraulics

3 Credits

Introduces the principles of fluid flow and development of practical hydraulics resulting from study of fluid statics, flow of real fluid in pipes, multiple pipe lines, liquid flow in open channels, and fluid measurement techniques.
Prerequisite Statics or divisional approval
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Elective **3 Credits**

ENV 211 - Sanitary Biology & Chemistry I

3 Credits

Teaches theory and laboratory techniques for control tests of water purification including bacteriology, color, turbidity, pH, alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, detergents, bactericides, and nitrates. Includes in-plant studies at nearby plants. Studies theory and laboratory techniques for the determination of solids, dissolved oxygen, oxygen consumed, relative stability, bacteria, biochemical oxygen demand, organic nitrogen, volatile acids, toxic metals. Must be taken in sequence.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- ENV 290 - Coordinated Internship in Environmental Science **4 Credits**
- Social Science Elective **3 Credits**

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Environmental Science, AAS

Purpose

The Environmental Science student will take course work from a wide array of natural resource offerings. This will prepare the student to work in all areas of environmental science related jobs.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Understand the natural environment and its relationships with human activities.
2. Characterize and analyze human impacts on the environment.
3. Integrate facts, concepts, and methods from multiple disciplines and apply to environmental problems.
4. Acquire practical skills for scientific problem-solving, including familiarity with laboratory and field instrumentation, computer applications, statistical and modeling techniques.
5. Understand and implement scientific research strategies, including collection, management, evaluation, and interpretation of environmental data.
6. Design and evaluate strategies, technologies, and methods for sustainable management of environmental systems and for the remediation or restoration of degraded environments.

Employment Opportunities

The Associate of Applied Science degree program in Environmental Science is designed to prepare students for employment as an Environmental Technician.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Dr. Chuks Ogbonnaya
cogbonnaya@mecc.edu
276.523.9088

Matthew Rose, Dean
mwrose@mecc.edu
276.523.7431

Program of Study

First Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENV 220 - Environmental Problems

3 Credits

Studies the relationship of man to his environment; ecological principles, population dynamics, topics of current importance including air, water, and noise pollution; poisoning and toxicity, radiation, conservation and management of natural resources.
Lecture Hours 3
Note Typically Offered: Fall/Spring

FOR 100 - Introduction to Forestry

3 Credits

Develops the general concepts of forestry and forest resource use in the United States. Laboratory sessions introduce the student to the protection, management, and use of forest resource.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SCT 111 - Introduction to Environmental & Science Technology I

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part I of II. Must be taken in sequence.

Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

- Humanities Elective **3 Credits**

HRT 137 - Environmental Factors in Plant Growth

3 Credits

Explores environmental factors which affect plant growth, including rainfall, humidity, wind, temperature, sunlight, irrigation, heating, and shading. Examines methods of inducing and breeding dormancy, lighting, and shading systems, and the relationship between day length and flowering.
Lecture Hours 3
Note Typically Offered: Fall/Spring

NAS 106 - Conservation of Natural Resources

3 Credits

Describes the management of natural resources, balance of nature, and the human impact on the environment.
Lecture Hours 3
Note Typically Offered: Spring

SCT 112 - Introduction to Environmental and Science Technology II

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part II of II. Must be taken in sequence.
Prerequisite SCT 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

Second Year Fall

AGR 205 - Soil Fertility and Management

3 Credits

Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies.
Lecture Hours 2
Lab hours 2

ENV 227 - Environmental Law

3 Credits

Introduces environmental law including the history of environmental laws, the National Environment Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENV 230 - GIS Apps in Environmental Sci

3 Credits

Introduces Global Positioning Systems(GPS) and Geographic Information Systems (GIS) hardware and software and applies the principles of GPS and GIS to Forest Science and Environmental Science. Includes: Natural Disasters; Pest Control; Water Quality; Prescribed Burning; Identifying Sources of Pollution.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

or

ENV 235 - Soil Conservat & Spoils Mgmt

3 Credits

Teaches principles of soil conservation, erosion and sediment processes, spoils placement, both mechanical and natural methods of stabilization, and impacts of not practicing prudent soil conservation methods.

Lecture Hours 3
Note Typically Offered: Fall

- HLT 111 - Health/Physical Education **1 Credits**
  or

PED 111 - Weight Training I

1 Credits

Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Part I of II.
Lab hours 2
Note Typically Offered: Fall/Spring

- Technical Elective **3 Credits**

Second Year Spring

AGR 208 - Insect Control

3 Credits

Examines principles and current trends in insect control. Studies biology and identification of economically important insects and related pests.
Lecture Hours 2
Lab hours 2

CIV 246 - Water Resource Technology

3 Credits

Introduces the elements of hydrology and hydraulic systems.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

- ENV 290 - Coordinated Internship in Environmental Science **4 Credits**

ENV 211 - Sanitary Biology & Chemistry I

3 Credits

Teaches theory and laboratory techniques for control tests of water purification including bacteriology, color, turbidity, pH, alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, detergents, bactericides, and nitrates. Includes in-plant studies at nearby plants. Studies theory and laboratory techniques for the determination of solids, dissolved oxygen, oxygen consumed, relative stability, bacteria, biochemical oxygen demand, organic nitrogen, volatile acids, toxic metals. Must be taken in sequence.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- Social Science Elective **3 Credits**

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Forest Science, AAS

Purpose

Forest Science students will take course work from a wide array of natural resource offerings. This will prepare the student to work in all phases of forest science from monitoring, managing, and protecting forest areas, harvesting timber, and producing primary and secondary wood products.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply knowledge of mathematics, and natural and management sciences to challenges related to timber management and forest operations in an efficient, safe, and environmentally and socially acceptable manner.
2. Recognize environmental conditions, such as those involving soil, water, and aesthetics, that impact forest operations and to design procedures that minimize adverse environmental impacts.
3. Design and conduct timber management tasks including silvicultural prescriptions, harvest scheduling, and timber appraisal, procurement and marketing.
4. Communicate effectively in a professional setting and to function productively in multi-disciplinary teams.
5. Demonstrate an understanding of how forest operations impact society in local, regional, and global contexts.
6. Apply business skills and modern forestry tools necessary for professional practice.

Employment Opportunities

The Associate of Applied Science degree program in Forest Science is designed to prepare students for employment as a forestry technician, lumber grader and other technical/supervisory positions within the forestry and timber industries.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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276.523.9088

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

FOR 100 - Introduction to Forestry

3 Credits

Develops the general concepts of forestry and forest resource use in the United States. Laboratory sessions introduce the student to the protection, management, and use of forest resource.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

FOR 115 - Dendrology

4 Credits

Studies trees and shrubs botanically and commercially important to the forests of eastern United States. Emphasizes field characteristics of trees and common shrubs of the eastern United States.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

- Humanities Elective **3 Credits**

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

NAS 106 - Conservation of Natural Resources

3 Credits

Describes the management of natural resources, balance of nature, and the human impact on the environment.
Lecture Hours 3
Note Typically Offered: Spring

- Technical Elective **3 Credits**

Summer

FOR 215 - Applied Silviculture

4 Credits

Focuses on theory and practices involved in controlling the forest establishment, composition and growth. Laboratory

emphasizes observation and application of various silvicultural procedures including site preparation, regeneration, and intermediate treatments.
Prerequisite FOR 115
Lecture Hours 3
Lab hours 3
Note Typically Offered: Summer

FOR 237 - Wildlife Ecology

3 Credits

Studies wildlife communities and their environmental relationships.
Lecture Hours 3
Note Typically Offered: Summer

Second Year Fall

AGR 205 - Soil Fertility and Management

3 Credits

Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies.
Lecture Hours 2
Lab hours 2

ENV 227 - Environmental Law

3 Credits

Introduces environmental law including the history of environmental laws, the National Environment Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 171 - Surveying I

3 Credits

Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography.
Prerequisite MTH 111
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

Second Year Spring

AGR 208 - Insect Control

3 Credits

Examines principles and current trends in insect control. Studies biology and identification of economically important insects and related pests.
Lecture Hours 2
Lab hours 2

CIV 172 - Surveying II

3 Credits

Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork and other topics related to transportation construction.
Prerequisite CIV 171
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

or

FOR 201 - Forest Mensuration I

4 Credits

Teaches principles of forest measurements including basic elements of property boundary, location, forest mapping, techniques of tree measurement, and saw log and pulp wood scaling.
Prerequisite FOR 115 and MTH 113/114
Lecture Hours 3
Lab hours 3
Note Typically Offered: Summer

FOR 245 - Forest Products I

2 Credits

Introduces forest products.
Lecture Hours 2
Note Typically Offered: Spring

FOR 290 - Coordinated Internship Forstry

4 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
Note Typically Offered: Spring

- HLT or PED **1 Credits**
- Social Science Elective **3 Credits**

Total Program Credits: 64/65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Smart Farming - Crop Production, Management, and Processing, CSC

Purpose

The Smart Farming Crop Production, Management, and Processing is designed to further improve the region's agricultural productivity by preparing agricultural producers to produce and process grains in the area.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Understand the business side of grain production including marketing and entrepreneurship.
2. Understand the mechanics of a grain terminal and grain processing.
3. Understand plant science and food safety.
4. Understand basic grain production including pest control.

For Further Information, Contact:

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Program of Study

First Year Summer

AGR 142 - Introduction to Plant Science and Technology

3 Credits

Introduces students to plant science, ecology, plant morphology, plant and soil relations and energy conversions. Includes surveying agricultural crops and their importance in the economy.
Lecture Hours 2
Lab hours 2

AGR 143 - Introduction to Agribusiness and Financial Management

3 Credits

Introduces agriculture's importance to society and ways to start a farm or agribusiness. Evaluates forms of business including cooperatives and create financial statements and reports necessary for routine accounting and tax preparation.

Utilizes financial tools for decision making, budgets and time value of money. Explores retirement, transition planning, personal financial management, and capital acquisition techniques.
Lecture Hours 2
Lab hours 2

AGR 295 - Grain Terminal Storage and Operations

4 Credits

This course provides basic but comprehensive information about operations and handling procedures at grain facilities, and serves as an introduction to new hires, students, and others in need of entry-level trianing. Stressing safety, it focuses on how grain moves through a facility and covers main elevator types; components and equipment; grain receiving procedures; sampling, testing and grading, binning; houskeeping and maintenance; fumigation, outbound procedures; and other fundamental grain facility functions.
Lecture Hours 2
Lab hours 2

First Year Fall

AGR 205 - Soil Fertility and Management

3 Credits

Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies.
Lecture Hours 2
Lab hours 2

AGR 231 - Agribusiness Marketing, Risk Management, and Entrepreneurship

3 Credits

Covers marketing techniques required to create an effective marketing plan addressing product, price, place, promotion, and people considerations of an agribusiness. Emphasizes unique aspects of agricultural products and risk management including price fluctuations and biosecurity. Projects explore entrepreneurship and creative marketing plans for a proposed farm or agribusiness.
Lecture Hours 3

AGR 234 - Chemical Application and Pest Management

3 Credits

Teaches concepts of proper application of pesticides and other agricultural chemicals used in landscape and turf management and in production agriculture; including application methods, equipment calibration and configuration, occupational health and safety, and pesticide laws and regulations.
Lecture Hours 3

AGR 233 - Food Production, Safety, Biosecurity, and Quality Control

3 Credits

Explores food production practices and their influence on food product quality, nutrition, and safety. Covers processing techniques for reducing spoilage, increasing farmer's share of the food dollar and diversifying farm incomes. Includes analytical methods for tracking and reporting quality control practices. Explores equipment, packaging, laws, regulations, standards, and financial sources for on farm and small-scale processing.
Lecture Hours 3

Total Credits: 22

Wastewater Plant Operator, CSC

Purpose

This program is Intended to prepare students for entry-level positions in a wastewater plant upon licensure obtainment. See faculty advisor for additional information or visit water.mecc.edu.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Possess the knowledge and skills necessary to succeed in an entry-level position in a water/wastewater treatment facility.
2. Become knowledgeable about processes and equipment used in water treatment, water distribution, wastewater collection and wastewater treatment.
3. Demonstrate knowledge of the procedures related to water and wastewater treatment processes.
4. Demonstrate basic knowledge of microbiology and chemistry applicable to water and wastewater treatment.
5. Demonstrate knowledge of the principles of hydraulic systems as related to water and wastewater systems.
6. Analyze and solve operational problems and perform mathematical calculations related to water and wastewater treatment processes.
7. Operate a treatment plant in a respectable and ethical manner as dictated by state and federal regulations.

Employment Opportunities

This program is designed to provide entry level wastewater plant operator skills.

Additional Information

To view additional details regarding the Water/Wastewater program, visit water.mecc.edu.

For Further Information, Contact:

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Program of Study

First Year Fall

ENV 108 - Environmental Microbiology

3 Credits

Studies characteristics and activities of micro-organisms, showing their essential relation to diagnosis, treatment, and prevention of disease. Explores fundamentals of bacteriology, mycology, and parasitology, emphasizing their relationships to community health. Includes soil, water, wastewater, and industrial microbiology.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 110 - Intro Waste/Water Trmt Tech

3 Credits

Provides entry-level students with a general overview of the entire water supply, treatment, and disposal system. Traces water supply from raw state through treatment, storage, distribution, use, waste collection, and discharge back to the environment. Covers aspects of water supply and wastewater treatment.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 149 - Wastewater Treatment Plant Ope

3 Credits

Teaches principles, practices and desired function and operation of a variety of wastewater treatment unity processes. Evaluates the operation of processes by determination of the information and testing required for evaluation and performing the subsequent necessary calculations.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

CIV 246 - Water Resource Technology

3 Credits

Introduces the elements of hydrology and hydraulic systems.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

First Year Spring

ENV 211 - Sanitary Biology & Chemistry I

3 Credits

Teaches theory and laboratory techniques for control tests of water purification including bacteriology, color, turbidity, pH, alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, detergents, bactericides, and nitrates. Includes in-plant studies at nearby plants. Studies theory and laboratory techniques for the determination of solids, dissolved oxygen, oxygen consumed, relative stability, bacteria, biochemical oxygen demand, organic nitrogen, volatile acids, toxic metals. Must be taken in sequence.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 240 - Fluid Mechanics and Hydraulics

3 Credits

Introduces the principles of fluid flow and development of practical hydraulics resulting from study of fluid statics, flow of real fluid in pipes, multiple pipe lines, liquid flow in open channels, and fluid measurement techniques.
Prerequisite Statics or divisional approval
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENV 227 - Environmental Law

3 Credits

Introduces environmental law including the history of environmental laws, the National Environment Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- ENV 290 - Coordinated Internship in Wastewater Plant Operator **4 Credits**

Total Program Credits: 25

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Water Plant Operator, CSC

Purpose

This program is Intended to prepare studednts for entry-level positions in a wastewater plant upon licensure obtainment. See faculty advisor for additional information or visit water.mecc.edu

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Possess the knowledge and skills necessary to succeed in an entry-level position in a water/wastewater treatment facility.
2. Become knowledgeable about processes and equipment used in water treatment, water distribution, wastewater collection and wastewater treatment.
3. Demonstrate knowledge of the procedures related to water and wastewater treatment processes.
4. Demonstrate basic knowledge of microbiology and chemistry applicable to water and wastewater treatment.
5. Demonstrate knowledge of the principles of hydraulic systems as related to water and wastewater systems.
6. Analyze and solve operational problems and perform mathematical calculations related to water and wastewater treatment processes.
7. Operate a treatment plant in a respectable and ethical manner as dictated by state and federal regulations.

Employment Opportunities

This program is designed to provide entry-level water plant operator skills.

Additional Information

To view additional details regarding the Water/Wastewater program, visit water.mecc.edu.

For Further Information, Contact:

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Program of Study

First Year Fall

ENV 108 - Environmental Microbiology

3 Credits

Studies characteristics and activities of micro-organisms, showing their essential relation to diagnosis, treatment, and prevention of disease. Explores fundamentals of bacteriology, mycology, and parasitology, emphasizing their relationships to community health. Includes soil, water, wastewater, and industrial microbiology.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 110 - Intro Waste/Water Trmt Tech

3 Credits

Provides entry-level students with a general overview of the entire water supply, treatment, and disposal system. Traces water supply from raw state through treatment, storage, distribution, use, waste collection, and discharge back to the environment. Covers aspects of water supply and wastewater treatment.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

ENV 115 - Water Purification

3 Credits

Explores principles of water purification including secretion, sedimentation, rapid sand filtration, chlorination, treatment, and prevention of disease. Studies fundamentals of bacteriology, mycology, and parasitology, emphasizing their relationships to community health. Includes soil, water, wastewater, and industrial microbiology.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

CIV 246 - Water Resource Technology

3 Credits

Introduces the elements of hydrology and hydraulic systems.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

First Year Spring

ENV 211 - Sanitary Biology & Chemistry I

3 Credits

Teaches theory and laboratory techniques for control tests of water purification including bacteriology, color, turbidity, pH, alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, detergents, bactericides, and nitrates. Includes in-plant studies at nearby plants. Studies theory and laboratory techniques for the determination of solids, dissolved oxygen, oxygen consumed, relative stability, bacteria, biochemical oxygen demand, organic nitrogen, volatile acids, toxic metals. Must be taken in sequence.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 240 - Fluid Mechanics and Hydraulics

3 Credits

Introduces the principles of fluid flow and development of practical hydraulics resulting from study of fluid statics, flow of real fluid in pipes, multiple pipe lines, liquid flow in open channels, and fluid measurement techniques.
Prerequisite Statics or divisional approval
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENV 227 - Environmental Law

3 Credits

Introduces environmental law including the history of environmental laws, the National Environment Policy Act, state environmental acts, hazardous wastes, endangered species, pollution, and surface mine reclamation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- ENV 290 - Coordinated Internship in Wastewater Plant Operator **4 Credits**

Total Program Credits: 25

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Health Sciences (Clinical) (Career Pathway)

Computed Tomography (SWCC), CSC

Purpose

The Career Studies Certificate in Computed Tomography Imaging is designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of the curriculum (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination leading to advanced certification as a Registered Radiographer in CT by the ARRT.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate competence in the essential aspects of computed tomography at the entry-level.
2. Understand the importance of life-long continuing education in the field of computed tomography.

Employment Opportunities

Employment opportunities for well-trained registered CT radiographers are available in hospitals, clinics, education, industry, government agencies, and private offices.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Admission Requirements

The student in Computed Tomography must have completed an approved program in radiography, radiation therapy, or nuclear medicine technology (either AART or NMTCB). The student must be registered by the appropriate certification agency. All students must have a current CPR certification and must maintain that certification throughout the program. Applicants must have maintained a "C" average in past program courses in the discipline or certification. Applicants must provide the following to be considered for admission.

1. Application to SWCC or VHCC
2. Official transcripts of all other colleges attended submitted to the appropriate admissions office at either SWCC or VHCC
3. Completed CT program application submitted to Donna Corns at donna.corns@sw.edu
4. Copy of current ARRT or NMTCB certification card submitted to Donna Corns at donna.corns@sw.edu

The student in Computed Tomography must abide by all community college policies as well as hospital policies while enrolled in the program.

Additional Information

Program Requirements

Upon admission and during the course of study, the college and hospital faculty will carefully observe and evaluate the student's progress. If, in the opinion of the faculty, a student does not exhibit professional behavior, the student will be asked to withdraw from the program.

Students will not be eligible to receive the certificate until a grade of "C" or better is obtained in each of the required courses. Before entering the clinical areas, the student must receive complete clinical clearance. Please see Ms. Corns for details. Students who can provide documentation of continuous employment in CT for a minimum of 1 year prior to the application deadline have the option of NOT completing the RAD 196 clinical class requirements.

Criminal Background Check/Drug Screening/Vaccinations and Testing

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Students must provide documentation of a recent PPD TB skin test and up-todate vaccinations for MMR, Varicella, Hepatitis B, and seasonal influenza. Other requirements may be specified by various clinical affiliates. Cost for criminal background checks, vaccinations, PPD testing, and drug testing will be the responsibility of the student.

For Further Information, Contact:

Sarah Clarkston

sclarkston@mecc.edu

276.523.9010

Donna Corns, Program Coordinator

Donna.corns@sw.edu

276.964.7642

Wes Mullins, Dean

jmulliins@mecc.edu

276.523.9017

Program of Study

First Year Fall

- RAD 247 - Cross Sectional Anatomy for CT/MR **3 Credits**
- RAD 242 - CT Procedures and Instrumentation **2 Credits**
- RAD 195 - Topics in Pharmacology for Technologists **1 Credits**
- RAD 196 - Clinical Internship in CT **1 Credits**

First Year Spring

- RAD 295 - Topics in CT Registry Preparation **3 Credits**
- RAD 196 - Clinical Internship in CT **2 Credits**

HLT 143 - Medical Terminology I

3 Credits

Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Part I of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring

HLT 145 - Ethics for Health Care Personnel

2 Credits

Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities.
Prerequisite EDE 10
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

Eligible for the National Registry Examination Leading to Advanced Certification as a Registered Technologist in Computed Tomography by the ARRT

Total Program Credits: 17

Notes and Additional Curriculum Options

Applicants must be ARRT or CNMT registered.

Dental Assistant Certificate

Purpose

Provide students with the theory, skills, laboratory and clinical experience to perform as dental assistants. Prepare students for employment in dental offices, hospitals, corporations, specialty dental clinics and the public health setting. Prepare students for the Dental Assistant National Board (DANB} Certified Dental Assistant (CDA) exam, which is recognized by all 50 states as the highest qualification for DAs.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate workplace readiness skills.
2. Obtain first aid and CPR/BLS certification
3. Collect and record vital signs
4. Assist with oral examinations
5. Prepare tray set-ups for oral procedures
6. Prepare patients and operatories for dental procedures
7. Take radiographic images and chart findings
8. Help dentists by transferring instruments during appointments, such as restorations (fillings), crown preparations, tooth extractions, and many other clinical procedures.
9. Provide better visibility for dentists by using suction, retractors, and other equipment
10. Take impressions and prepare study models
11. Assist in maintaining accurate patient treatment records
12. Schedule patient appointments and follow-up care
13. Assist with patient billing, insurance, and other office tasks
14. Protect patients and employees by adhering to infection control policies, OSHA regulations, and protocols
15. Maintain basic equipment
16. Keep dental and office supply inventories, while also ordering new materials
17. Assist with patient emergencies
18. Assist dental professionals with patient education activities and community outreach projects
19. Assist in procedures by selecting, mixing, or providing needed materials

Employment Opportunities

Job opportunities may include working with other dental health professionals in private dental offices, hospitals, corporations, specialty dental clinics, volunteer dental events, and public health settings.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Admission Requirements

Dental Assistant is a competitive admissions program. The deadline to submit a program application to the spring cohort is October 15th. Please visit www.mecc.edu to apply for program admission. Travel to clinical assignments and to the Center for Workforce and innovation in Appalachia (CWIA) is required. The following immunizations, checks, and screenings are also required:

- Proof & record of three Hepatitis B vaccinations OR proof of immunity by titer
- Proof & record of two MMR vaccines OR proof of immunity by titer
- Proof & record of negative TB test (two-step)
- Proof & record of seasonal flu shot (current season)
- Proof & record of two varicella vaccinations OR proof of immunity by titer
- Proof & record of DTP (diphtheria, tetanus, pertussis) vaccinations OR proof of immunity by titer
- Passing of criminal and sexual background checks and drug screen
- Proof and record of two Hepatitis A vaccinations OR proof of immunity by titer
    - The first in the series must be started within the past six months
- Proof and record of current health insurance coverage
- Voluntary disclosure of COVID-19 vaccination status

For Further Information, Contact:

Dr. Emily Bowen, DDS, Program Director

ebowen@mecc.edu

276.523.9008

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

DNA 103 - Introduction to Oral Health

1 Credits

Teaches anatomy of the head and neck, the oral cavity hard and soft tissues, as well as tooth morphology. Includes dental terminology, deciduous and permanent dentition as well as pathology.
Lecture Hours 1
Note Typically Offered: Summer

DNA 108 - Dental Science I

3 Credits

Studies head and neck anatomy, tooth morphology, pathological conditions of the oral cavity, disease processes, and microbiology.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Summer

DNA 109 - Practical Infection Control

3 Credits

Studies principles of management of disease producing microorganisms and associated diseases. Emphasizes sterilization, asepsis, and disinfection techniques applicable in the dental office.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Summer

HLT 100 - First Aid and CPR

3 Credits

Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS for Healthcare Provider CPR Certification, AHA Heartsaver OSHA Bloodborne Pathogen Certification, and AHA Heartsaver First Aid Certification

Second Semester

DNA 110 - Dental Materials

3 Credits

Studies the materials utilized in the laboratory aspect of dentistry as support in treatment. Emphasis is placed on the characteristics, manipulation, economical control, storage, and delivery of materials.
Prerequisite DNA 103, DNA 108, DNA 109
Lecture Hours 2

Lab hours 3
Note Typically Offered: Fall

DNA 113 - Chairside Assisting I

3 Credits

Provides instruction on the principles of clinical chair side dental assisting, dental equipment use and maintenance, safety, instrument identification, tray set-ups by procedures, and patient data collection. Emphasis on patient management during restorative procedures.
Prerequisite DNA 103, DNA 108, DNA 109
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

DNA 114 - Chairside Assisting II

4 Credits

Introduces the student to the various dental specialties including oral surgery, orthodontics, periodontic, prosthodontics, endodontics, and pediatric dentistry. Integrates and applies previous course content to operative dental procedures.
Prerequisite DNA 103, DNA 108, DNA 109, DNA 113
Lecture Hours 2
Lab hours 6
Note Typically Offered: Fall

DNA 135 - Dental Radiation Safety

2 Credits

Studies techniques and devices used for protection from ionizing radiation. Teaches biological effects, cell sensitivity and genetic effects of ionizing radiation. Includes practice of bisection and parallel techniques on manikins. Prepares employed dental staff to meet the Virginia Board of Dentistry's regulations for certification in dental radiation safety hygiene.
Prerequisite DNA 103, DNA 108, DNA 109
Lecture Hours 1
Lab hours 3
Note Typically Offered: Fall

Students Eligible for Dental Assisting National Board/CDA (Radiation and Infection Control)

Third Semester

DNA 130 - Dental Office Management

2 Credits

Exposes students to and provides practical experience in the legal aspects of dental office management with regard to ethics, jurisprudence, appointment control, recall systems, reception techniques, telephone techniques, accounts

receivable and payable, payroll, insurance claims, inventory control, and professional conduct in a dental office.
Prerequisite DNA 103, DNA 108, DNA 109, DNA 113
Lecture Hours 1
Lab hours 3
Note Typically Offered: Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 107 - Career Education

3 Credits

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Students Eligible to Take the Work Ethic Proficiency Certification Exam

Students eligible for Dental Assisting National Board/CDA (Chairside Assisting)

Total Program Credits: 45

Notes and Additional Curriculum Options

Please see an advisor for more information.

Emergency Medical Services Technology, AAS

Purpose

The purpose of this curriculum is to produce competent entry-level Paramedics who can provide the highest level of out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to Paramedic licensure or certification in Virginia and most other states.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Perform current techniques in pre-hospital emergency care to include signs and symptoms of illness, injuries, medical emergencies, appropriate medical techniques, and ambulance operations.
2. Assess, extricate, and care for victims of trauma incidents utilizing the following management skills; scene size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures.
3. Describe the basic pharmacological background and actions of drugs, regulations, human body systems, pharmacokinetics, and drug calculations.
4. Demonstrate the advanced life support skills approach to emergency care of the emotionally disturbed to include emotional aspects, approach to the patient, psychiatric emergencies and techniques of management.
5. Perform an advanced physical assessment on an emergency patient to include the physical exam, integrative and on-going exams, and communicate/document the findings to the patient and others.
6. Recognize and intervene in medical emergencies related to toxicology, hazardous materials, infectious disease, and hematology. Include poisoning, drug overdose, and transmission of infectious diseases.
7. Identify pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease/injury based on 3-lead and 12-lead cardiac monitoring and interpretation. Define cardiovascular anatomy and physiology, cardiovascular pathologies and management, and adjunctive diagnostics.
8. Utilize assessment findings to formulate a field impression and implement the treatment plan for obstetric, neonatal, pediatric, geriatric, and chronic-care patients.

Program Goal

To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

Employment Opportunities

Opportunities for paramedics include employment by fire and rescue service providers, hospitals, school systems, industry, ambulance and transportation services, local, state and federal government agencies, humanitarian relief organizations, and the military.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program. Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam.

Additional Information

The paramedic curriculum is an academically rigorous program, but one having the potential to provide a rewarding career for participants. Applicants for the advanced life support component of the program must meet the following:

- Be at least 18 years of age by the beginning of the program pursuant to Section 12VAC5-30-270A.1. of the Rules and Regulations of the Board of Health Governing Emergency Medical Services.
- Be a high school graduate or have satisfactorily completed the GED.
- Have a current and valid certificate evidencing Emergency Medical Technician certification in Virginia pursuant to Section 12VAC5-30-290 of the Rules and Regulations of the Board of Health Governing Emergency Medical Services. See http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-35-Prereqs-and-Conduct-3-5-19.pdf
- Possess and maintain current CPR certification.

Accreditation and State Approval

This program is accredited by the Virginia Office of Emergency Medical Services and is offered in conjunction with Southwest Virginia and Virginia Highland Community Colleges. The Southwest Virginia Paramedic program is accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Committee on Accreditation of Allied Health Educational Programs (CAAHEP) 9355 113th Street North, #7709, Seminole, FL 33775, phone 727-210-2350., www.caahep.org. To contact the CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, phone 214-703-8445, fax 214-703-8992, www.coaemsp.org. Meets state educational requirements for licensure for NREMT in all states with the exception of IL and MT.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY	IL, MT	

Further information regarding EMS certifications may be found at: https://nasemso.org/

Statement for Emergency Medical Services (EMS):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Academic Requirements:

Any student receiving a grade of less than "C" in any of the required program courses will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program shall result if the student does not meet the requirements of the contract.

Course and Behavioral Requirements:

Selected and supervised student clinical experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips or combined program classes. Program preceptors will observe and evaluate the student's aptitude for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student may be asked to withdraw from the program.

Physical Requirements

An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services web site for a more detailed functional job description. http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-14A-ALSFunctional-Job-Description-1-2-20.pdf.

Other Requirements:

In addition to basic college costs such as tuition and fees, this program requires expenditures for uniforms, books, liability insurance, CPR certification, immunizations and physical, testing fees, certification courses and some medical equipment items. Students are also responsible for their own transportation to clinical sites. AApplicants accepted to the program are required to submit a health certificate signed by a licensed physician or nurse practitioner and should include documentation of measles, seasonal flu, mumps, Hepatitis B, Rubella (MMR), COVID-19, and varicella immunizations, TB testing, and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with state regulations. See http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-35-Prereqs-and-Conduct-3-5-19.pdf Students who elect to take support courses recommended by the Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

Please see the CoAEMSP Outcomes Summary -1010 for programpass rates, retention and job placements.

Selection Process:

To be eligible for selection to the program, interested persons should complete the following process by May 15:

- Submit a college admission application.
- Submit an online application to the program with required attachments.
- Take the Program Entrance Exam at the June orientation meeting
- Take the VPT placement test (or submit ASSET, COMPASS, SAT or ACT scores). To enroll in EMS courses the student must test above ENF 1 and MTE 1 or the equivalent as determined by VCCS Multiple Measures guidelines.
- Send transcripts of previous college courses to MECC.
- Send high school transcripts to MECC.

After May 15th the first round of students will be selected. Selection will be based on previous college coursework, entrance exam score, and college placement reading scores. Should openings still be available, persons who apply or meet requirements after May 15 will be considered.

For Further Information, Contact:

Bill Akers, EMS Program Director

Bill.Akers@sw.edu

276.964.7729

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Year Summer

EMS 100 - CPR for Healthcare Providers

1 Credits

Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Equivalent to HLT 105.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

EMS 111 - Emergency Medical Technician-Basic

7 Credits

Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician.
Prerequisite CPR certification at the Health Care Provider level.
Corequisite EMS 120
Lecture Hours 5
Lab hours 4
Note Typically Offered: Fall/Spring/Summer

EMS 120 - Emergency Medical Technician Basic - Clinical

1 Credits

Provides supervised direct patient contact introducing the student to the assessment and emergency care of sick and injured patients. Co-requisite of EMS-111 or EMS-113, depending upon the program in which the student is participating.
Corequisite EMS 111 or EMS 113
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

BIO 145 - Basic Human Anatomy & Physiology

4 Credits

Surveys human anatomy and physiology. Covers basic chemical concepts, cellular physiology, anatomy, and physiology of human organ systems. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite EMS Program Plan Placed
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS for Healthcare Provider CPR Certification

Eligible to Take National Registry Emergency Medical Technician Exam

First Year Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

EMS 123 - EMS Clinical Preparation

1 Credits

Introduces the student to local clinical agencies and prepares the student for clinical activities above the level of EMT. Includes prerequisites required by clinical affiliates, therapeutic communication, primary assessment, history taking, secondary assessment, reassessment, monitoring devices and documentation.
Prerequisite EMS Program Placed
Lab hours 2
Note Typically Offered: Fall

EMS 180 - Advanced EMS Foundations

1 Credits

Introduces fundamental concepts established by the National Emergency Medical Service Education Standards (NEMSES) for the Advanced EMT curriculum. Includes EMS systems, introduction to research, workforce safety and wellness, EMS system communications, therapeutic communication, and legal and ethical issues.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 1

Lab hours 0
Note Typically Offered: Fall

EMS 181 - Advanced Airway and Shock Management

1 Credits

Introduces core principles of airway, shock, and resuscitation as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with a fundamental knowledge of the Cardiopulmonary system, including its assessment and management of shock. Covers cardiac arrest and post-arrest management.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 182: Advanced Airway & Shock Management Laboratory
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall

EMS 182 - Advanced Airway and Shock Management Laboratory

1 Credits

Examines assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with specific skills related to airway, resuscitation and shock management.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 181: Advanced Airway and Shock Management.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall

EMS 183 - Advanced Medical Care

2 Credits

Examines the assessment and management of medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 184: Advanced Medical Care Laboratory.
Lecture Hours 2
Lab hours 0
Note Typically Offered: Fall

EMS 184 - Advanced Medical Care Laboratory

1 Credits

Focuses on specific skills related to the assessment and management of common medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS program.
Corequisite EMS 183: Advanced Medical Care.
Lecture Hours 0

Lab hours 2
Note Typically Offered: Fall

EMS 185 - Advanced Trauma Care

2 Credits

Examines the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS program.
Corequisite EMS 186: Advanced Trauma Care Laboratory.
Lecture Hours 2
Lab hours 0
Note Typically Offered: Fall

EMS 186 - Advanced Trauma Care Laboratory

1 Credits

Focuses on specific skills related to the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 185: Advanced Trauma Care Laboratory.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 170 - ALS Internship I

1 Credits

Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma centers and various advanced life support units.
Prerequisite EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128
Lecture Hours 0
Lab hours 3
Note Typically Offered: Spring

Eligible to Take National Registry Advanced Emergency Medical Technician Exam

First Year Spring

EMS 221 - Paramedic Cardiovascular Care

3 Credits

Covers in-depth assessment and management of cardiovascular conditions, as outlined by the National Emergency

Medical Service Education Standards (NEMSES) for Paramedics.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 222: Paramedic Cardiovascular Care Laboratory.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

EMS 222 - Paramedic Cardiovascular Care Laboratory

1 Credits

Focuses on skills involved in the assessment and management of cardiac-related emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Develops competency in basic dysrhythmia recognition and overall cardiac patient care.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 221: Paramedic Cardiovascular Care.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 223 - Paramedic Patient Care I

3 Credits

Covers the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 224: Paramedic Patient Care I Laboratory.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

EMS 224 - Paramedic Patient Care I Laboratory

1 Credits

Covers the skills related to the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 223: Paramedic Patient Care I.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 241 - Paramedic Internship I

2 Credits

Introduces students to live patient assessment and management in the clinical and field setting. Begins a continuum of learning involving live patients that leads to entry-level competence at the paramedic level. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 0

Lab hours 6
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible to take the NAEMT Prehospital Trauma Life Support certification exam

Second Year Fall

EMS 225 - Paramedic Patient Care II

5 Credits

Covers the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 226: Paramedic Patient Care II Lab.
Lecture Hours 5
Lab hours 0
Note Typically Offered: Spring

EMS 226 - Paramedic Patient Care Laboratory II

2 Credits

Covers the skills related to the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 225: Paramedic Patient Care II.
Lecture Hours 0

Lab hours 4
Note Typically Offered: Spring

EMS 246 - Paramedic Internship II

2 Credits

Introduces students to live patient assessment and management in the clinical and field set. Continues the learning experience with live patients that leads to entry-level competence at the paramedic level. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 0
Lab hours 6
Note Typically Offered: Spring

- General Education Elective - 3 Credits

Second Year Spring

EMS 210 - EMS Operations

1 Credits

Focuses on matters related to Emergency Medical Services (EMS) operations, incident and scene safety and awareness, triage, multiple and mass casualty incident operations and medical incident management (command and control of EMS incidents).
Prerequisite EMS 125, EMS 126, EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142.
Lab hours 2
Note Typically Offered: Spring

EMS 212 - Leadership and Professional Development

1 Credits

Focuses on the development of leadership within the field of Emergency Medical Services (EMS), topics include civic engagement, personal wellness, resource management, ethical considerations in leadership and research.
Prerequisite EMS 125, EMS 126, EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142.
Lecture Hours 1
Note Typically Offered: Spring

EMS 163 - Prehospital Trauma Life Support (PHTLS)

1 Credits

Prepares for certification as a Prehospital Trauma Life Support provider as defined by the American College of Surgeons.
Prerequisite EMS 111 or equivalent.
Lecture Hours 1
Note Typically Offered: Spring

EMS 164 - Advanced Medical Life Support

1 Credits

Covers current topics of care for adult patients suffering extensive medical conditions and emergencies, and offers certification as an Advanced Medical Life Support (AMLS) as defined by the National Association of Emergency Medical Technicians (NAEMT).
Lecture Hours 1
Note Typically Offered: Spring

EMS 165 - Advanced Cardiac Life Support - ACLS

1 Credits

Prepares for certification as an Advanced Cardiac Life provider. Follows course as defined by the American Heart Association.
Prerequisite EMS 100 or equivalent.
Lecture Hours 1
Note Typically Offered: Spring

EMS 167 - Emergency Pediatric Care (EPC)

1 Credits

Provides a unique approach to pediatric medical care, offering assessment techniques that can help EMS practitioners rapidly and accurately assess pediatric patients to determine which situations may be life threatening and require immediate intervention. Offers certification as defined by the National Association of Emergency Medical Technicians (NAEMT).
Prerequisite EMS Program Placed.
Lecture Hours 1
Note Typically Offered: Spring

EMS 216 - Paramedic Review

1 Credits

Provides the student with intensive review for the practical and written portions of the National Registry Paramedic exam. May be repeated once, for credit.
Prerequisite EMS Program Placed.
Lab hours 2
Note Typically Offered: Spring

EMS 249 - Paramedic Capstone Internship

2 Credits

Provides summative evaluation of the Paramedic student in the cognitive, psychomotor, and affective domains.
Prerequisite EMS 202, EMS 203, EMS 204, EMS 206, EMS 247, EMS 248.
Note Typically Offered: Spring

- Humanities Elective **3 Credits**

Eligible to take the AHA ACLS certification exam, and the NAEMT's EPC and AMLS certifications exams. Eligible to take the National Registry Emergency Medical Technician Paramedic Exam.

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

BIO 141 and BIO 142 or BIO 231 and BIO 232 will substitute for BIO 145 and the additional credits may satisfy the general education elective.

Emergency Medical Technician Advanced, CSC

Purpose

The purpose of this curriculum is to produce competent, entry-level Advanced Emergency Medical Technicians who can service the community with advanced life support care via the Emergency Medical Services infrastructure. Upon successful completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply fundamental knowledge of the EMS system, safety/well-being of the EMT, medical/legal and ethical issues to the provision of the emergency care.
2. Integrate complex knowledge of the anatomy, physiology, and pathophysiology of the airway, respiratory, and circulatory system to the practice of EMS.
3. Use simple knowledge of the principles of the role of EMS during public health emergencies.
4. Apply fundamental knowledge of the medications carried by the Advanced EMT that may be administered to the patient during an emergency
5. Apply knowledge of upper airway anatomy and physiology to patient assessment and management in order to assure a patient's airway, adequate mechanical ventilation and respiration for patients of all ages.
6. Apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide emergency management
7. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.
8. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely injured trauma (bleeding, chest trauma, abdominal/GI trauma, orthopedic trauma, soft tissue trauma, head/facial/neck/spinal trauma, nervous system trauma, environmental) patient
9. Apply fundamental knowledge of operational roles and responsibilities to ensure patient, public, and personnel safety to include ambulance operations, incident management, MCI, air medical, vehicle extrication and hazmat awareness.
10. Competently perform the skills and administer medications listed in the Virginia scope of practice for an Advanced EMT provider.

Employment Opportunities

Opportunities for AEMTs include employment by fire and rescue service providers, hospitals, school systems, industry, ambulance and transportation services, local, state and federal government agencies, humanitarian relief organizations, and the military.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam.

Applicants must meet the following requirements:

- Be at least 18 years of age by the beginning of the program pursuant to Section 12VAC5-30-270A.1. of the Rules and Regulations of the Board of Health Governing Emergency Medical Services.
- Be a high school graduate or have satisfactorily completed the GED.
- Have a current and valid certificate evidencing Emergency Medical Technician certification in Virginia pursuant to Section 12VAC5-30-290 of the Rules and Regulations of the Board of Health Governing Emergency Medical Services. See http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-35-Prereqs-and-Conduct-3-5-19.pdf
- Possess and maintain current CPR certification.

Academic Requirements

Any student receiving a grade of less than "C" in any of the required program courses will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program shall result if the student does not meet the requirements of the contract.

Clinical and Behavioral Requirements

Selected and supervised student clinical experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips or combined program classes. Program preceptors will observe and evaluate the student's aptitude for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student may be asked to withdraw from the program.

Selection Process

To be eligible for selection to the program, interested persons should complete the following process by May 15:

- Submit a college admission application.
- Submit an online application to the program (separate document) with required attachments.
- Take the Program Entrance Exam.
- Take the VPT placement test (or submit ASSET, COMPASS, SAT or ACT scores). To enroll in EMS courses the student must test above ENF 1 and MTE 1 or the equivalent as determined by VCCS Multiple Measures guidelines.
- Have transcripts of previous college courses sent to MECC.
- Have high school transcripts sent to MECC.

After May 15th the first round of students will be selected. Selection will be based on previous college coursework, entrance exam score, and college placement reading scores. Should openings still be available, persons who apply or meet requirements after May 15 will be considered.

Other Requirements

In addition to basic college costs such as tuition and fees, this program requires expenditures for uniforms, books, liability insurance, CPR certification, immunizations and physical, testing fees, certification courses and some medical equipment items. Students are also responsible for their own transportation to clinical sites. Applicants accepted to the program are required to submit a health certificate signed by a licensed physician or nurse practitioner and should

include documentation of measles, seasonal flu, mumps, Hepatitis B, Rubella (MMR) and chicken pox exposure, TB testing, and overall general health of the applicant.

Physical Requirements

This program requires extensive walking, stooping, bending, pushing, pulling, climbing stairs, and lifting. Lifting and carrying requirements: at least 125 pounds; Motor coordination is necessary because over uneven terrain, the patients', EMTs', and other workers' well-being must not be jeopardized. Further, extensive use of sight, hearing, and speaking is required. An EMS provider is faced with many physical and psychological challenges. Please refer to the Virginia Office of Emergency Medical Services web site for a more detailed functional job description - www.vdh.virginia.gov/oems/training.

Accreditation

This program is accredited by the Virginia Office of Emergency Medical Services and is offered in conjunction with Southwest Virginia and Virginia Highland Community Colleges. The Southwest Virginia Advanced EMT program is accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Commission of Accreditation of Allied Health Education Programs (CAAHEP), 9355 113th Street, North #7709, Seminole, FL 33775, 727-210-2350, www.caahep,org. To contact the CoAEMSP: 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75088, phone 214-703-8445, Fax: 214-703-8992, www.coaemsp.org. Meets state educational requirements for licensure for NREMT in all states with the exception of IL and MT.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY	IL, MT	

Further information regarding EMS certifications may be found at: https://nasemso.org/

Statement for Emergency Medical Services (EMS):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

For Further Information, Contact:

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Bill Akers, EMS Program Director

Bill.Akers@sw.edu

276.964.7729

Program of Study

First Semester

EMS 111 - Emergency Medical Technician-Basic

7 Credits

Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician.
Prerequisite CPR certification at the Health Care Provider level.
Corequisite EMS 120
Lecture Hours 5
Lab hours 4
Note Typically Offered: Fall/Spring/Summer

EMS 100 - CPR for Healthcare Providers

1 Credits

Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Equivalent to HLT 105.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

EMS 120 - Emergency Medical Technician Basic - Clinical

1 Credits

Provides supervised direct patient contact introducing the student to the assessment and emergency care of sick and injured patients. Co-requisite of EMS-111 or EMS-113, depending upon the program in which the student is participating.
Corequisite EMS 111 or EMS 113
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

BIO 145 - Basic Human Anatomy & Physiology

4 Credits

Surveys human anatomy and physiology. Covers basic chemical concepts, cellular physiology, anatomy, and physiology of human organ systems. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite EMS Program Plan Placed
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS For Healthcare Provider CPR Certification

Eligible To Take National Registry Emergency Medical Technician Exam

Second Semester

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

EMS 123 - EMS Clinical Preparation

1 Credits

Introduces the student to local clinical agencies and prepares the student for clinical activities above the level of EMT. Includes prerequisites required by clinical affiliates, therapeutic communication, primary assessment, history taking, secondary assessment, reassessment, monitoring devices and documentation.
Prerequisite EMS Program Placed
Lab hours 2
Note Typically Offered: Fall

EMS 180 - Advanced EMS Foundations

1 Credits

Introduces fundamental concepts established by the National Emergency Medical Service Education Standards (NEMSES) for the Advanced EMT curriculum. Includes EMS systems, introduction to research, workforce safety and wellness, EMS system communications, therapeutic communication, and legal and ethical issues.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall

EMS 181 - Advanced Airway and Shock Management

1 Credits

Introduces core principles of airway, shock, and resuscitation as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with a fundamental knowledge of the Cardiopulmonary system, including its assessment and management of shock. Covers cardiac arrest and post-arrest management.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 182: Advanced Airway & Shock Management Laboratory
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall

EMS 182 - Advanced Airway and Shock Management Laboratory

1 Credits

Examines assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Provides students with specific skills related to airway, resuscitation and shock management.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 181: Advanced Airway and Shock Management.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall

EMS 183 - Advanced Medical Care

2 Credits

Examines the assessment and management of medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 184: Advanced Medical Care Laboratory.
Lecture Hours 2
Lab hours 0
Note Typically Offered: Fall

EMS 184 - Advanced Medical Care Laboratory

1 Credits

Focuses on specific skills related to the assessment and management of common medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS program.
Corequisite EMS 183: Advanced Medical Care.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 185 - Advanced Trauma Care

2 Credits

Examines the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS program.
Corequisite EMS 186: Advanced Trauma Care Laboratory.
Lecture Hours 2
Lab hours 0
Note Typically Offered: Fall

EMS 186 - Advanced Trauma Care Laboratory

1 Credits

Focuses on specific skills related to the assessment and management of trauma emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 185: Advanced Trauma Care Laboratory.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 170 - ALS Internship I

1 Credits

Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma centers and various advanced life support units.
Prerequisite EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128
Lecture Hours 0
Lab hours 3
Note Typically Offered: Spring

Eligible to take the NAEMT Prehospital Trauma Life Support Certification Exam and eligible to take the National Registry Advanced Emergency Medical Technician Exam

Total Program Credits: 25

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Emergency Medical Technician Plus, CSC

Purpose

The purpose of this curriculum is to produce competent entry-level EMTs who can provide basic out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to EMT certification in Virginia and most other states.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply fundamental knowledge of the EMS system, safety/well-being of the EMT, medical/legal and ethical issues to the provision of the emergency care.
2. Integrate knowledge of the anatomy, physiology, and pathophysiology of the airway, respiratory, and circulatory system to the practice of EMS.
3. Use simple knowledge of the principles of the role of EMS during public health emergencies.
4. Apply fundamental knowledge of the medications utilized by the EMT that may be administered to the patient during an emergency.
5. Apply knowledge of upper airway anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation and respiration for patients of all ages.
6. Apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide emergency management.
7. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely ill medical (neurology, GI/GU, immunology, infectious disease, endocrine, psychiatric, cardiovascular, toxicology, respiratory, hematology, OB/GYN) patient.
8. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.
9. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely injured trauma (bleeding, chest trauma, abdominal/GI trauma, orthopedic trauma, soft tissue trauma, head/facial/neck/spinal trauma, nervous system trauma, environmental) patient.
10. Apply fundamental knowledge of growth, development, aging, and assessment findings to provide a basic and selected advanced emergency care and transportation for a patient with special needs (OB, neonatal, pediatrics, geriatrics).
11. Apply fundamental knowledge of operational roles and responsibilities to ensure patient, public, and personnel safety to include ambulance operations, incident management, MCI, air medical, vehicle extrication and hazmat awareness.
12. Competently perform the skills and administer medications listed in the Virginia scope of practice for an EMT provider.

Employment Opportunities

Opportunities for EMTs include employment by fire and rescue service providers, hospitals, school systems, industry, ambulance and transportation services, local, state and federal government agencies, humanitarian relief organizations, and the military.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam. Applicants must be at least 16 years of age by the beginning of the program pursuant to Section 12VAC5-30-270A.1 of the Rules and Regulations of the Board of Health governing Emergency Medical Services and possess and maintain current CPR certification. This program is accredited by the Virginia Office of Emergency Medical Services and is offered in conjunction with Southwest Virginia Community College and Virginia Highlands Community College. Travel to clinical\field assignments is required.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY	IL, MT	

Further information regarding EMS certifications may be found at: https://nasemso.org/

Statement for Emergency Medical Services (EMS):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

For Further Information, Contact:

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Bill Akers, EMS Program Director

Bill.Akers@sw.edu

276.964.7729

Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

EMS 100 - CPR for Healthcare Providers

1 Credits

Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Equivalent to HLT 105.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on

argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

EMS 111 - Emergency Medical Technician-Basic

7 Credits

Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician.
Prerequisite CPR certification at the Health Care Provider level.
Corequisite EMS 120
Lecture Hours 5
Lab hours 4
Note Typically Offered: Fall/Spring/Summer

EMS 120 - Emergency Medical Technician Basic - Clinical

1 Credits

Provides supervised direct patient contact introducing the student to the assessment and emergency care of sick and injured patients. Co-requisite of EMS-111 or EMS-113, depending upon the program in which the student is participating.
Corequisite EMS 111 or EMS 113
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS for Healthcare Provider CPR Certification and Eligible to Take National Registry Medical Technician Exam

Total Program Credits: 19

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

[1]ENG 111-1st 8 wk course; ENG 112-2nd 8 wk course.

Emergency Medical Technician, CSC

Purpose

The purpose of this curriculum is to produce competent entry-level EMTs who can provide basic out-of-hospital care. Upon completion of the program, students will be eligible for National Registry testing and certification. This credential leads to EMT certification in Virginia and most other states.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Apply fundamental knowledge of the EMS system, safety/well-being of the Paramedic, medical/legal and ethical issues to the provision of the emergency care.
2. Integrate knowledge of the anatomy, physiology, and pathophysiology of the airway, respiratory, and circulatory system to the practice of EMS.
3. Use simple knowledge of the principles of the role of EMS during public health emergencies.
4. Apply fundamental knowledge of the medications utilized by the EMT that may be administered to the patient during an emergency.
5. Apply knowledge of upper airway anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation and respiration for patients of all ages.
6. Apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide emergency management.
7. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely ill medical (neurology, GI/GU, immunology, infectious disease, endocrine, psychiatric, cardiovascular, toxicology, respiratory, hematology, OB/GYN) patient.
8. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.
9. Apply fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely injured trauma (bleeding, chest trauma, abdominal/GI trauma, orthopedic trauma, soft tissue trauma, head/facial/neck/spinal trauma, nervous system trauma, environmental) patient.
10. Apply fundamental knowledge of growth, development, aging, and assessment findings to provide a basic and selected advanced emergency care and transportation for a patient with special needs (OB, neonatal, pediatrics, geriatrics).
11. Apply fundamental knowledge of operational roles and responsibilities to ensure patient, public, and personnel safety to include ambulance operations, incident management, MCI, air medical, vehicle extrication and hazmat awareness.
12. Competently perform the skills and administer medications listed in the Virginia scope of practice for an EMT provider.

Employment Opportunities

Opportunities for EMTs include employment by fire and rescue service providers, hospitals, school systems, industry, ambulance and transportation services, local, state and federal government agencies, humanitarian relief organizations, and the military.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

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Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam. Applicants must be at least 16 years of age by the beginning of the program pursuant to Section 12VAC5-30-270A.1 of the Rules and Regulations of the Board of Health governing Emergency Medical Services and possess and maintain current CPR certification. This program is accredited by the Virginia Office of Emergency Medical Services and is offered in conjunction with Southwest Virginia Community College and Virginia Highlands Community College. Travel to clinical\field assignments is required.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY IL, MT	IL, MT	

Further information regarding EMS certifications may be found at: https://nasemso.org/

Statement for Emergency Medical Services (EMS):

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Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

For Further Information, Contact:

Wes Mullins, Dean

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276.523.9017

Bill Akers, EMS Program Director

Bill.Akers@sw.edu

276.964.7729

Program of Study

First Year Fall or First Year Spring

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

EMS 111 - Emergency Medical Technician-Basic

7 Credits

Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician.
Prerequisite CPR certification at the Health Care Provider level.
Corequisite EMS 120
Lecture Hours 5
Lab hours 4
Note Typically Offered: Fall/Spring/Summer

EMS 120 - Emergency Medical Technician Basic - Clinical

1 Credits

Provides supervised direct patient contact introducing the student to the assessment and emergency care of sick and injured patients. Co-requisite of EMS-111 or EMS-113, depending upon the program in which the student is

participating.
Corequisite EMS 111 or EMS 113
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall/Spring/Summer

Students Earn AHA BLS for Healthcare Provider CPR Certification and Eligible to Take National Registry Medical Technician Exam

Total Program Credits: 9

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

EMS 100 or HLT 100 will substitute for HLT 105.

EMT Advanced and RN Bridge to Paramedic Bridge, CSC

Purpose

The purpose of this curriculum is to produce competent entry-level Paramedics who can provide the highest level of out-of-hospital care. This program is only for current nationally registered AEMTs and RNs per approval of the Operational Medical Director.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Perform current techniques in pre-hospital emergency care to include signs and symptoms of illness, injuries, medical emergencies, appropriate medical techniques, and ambulance operations.
2. Assess, extricate, and care for victims of trauma incidents utilizing the following management skills; scene sizeup, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures.
3. Describe the basic pharmacological background and actions of drugs, regulations, human body systems, pharmacokinetics, and drug calculations.
4. Demonstrate the advanced life support skills approach to emergency care of the emotionally disturbed to include emotional aspects, approach to the patient, psychiatric emergencies and techniques of management.
5. Perform an advanced physical assessment on an emergency patient to include the physical exam, integrative and on-going exams, and communicate/document the findings to the patient and others.
6. Perform a pediatric assessment, manage airway and respiratory emergencies, cardiovascular emergencies, neonatal emergencies, and Sudden Infant Death Syndrome (SIDS). Treat children with special healthcare needs.
7. Recognize and intervene in medical emergencies related to toxicology, hazardous materials, infectious disease, and hematology. Include poisoning, drug overdose, and transmission of infectious diseases.
8. Identify pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease/injury based on 3-lead and 12-lead cardiac monitoring and interpretation. Define cardiovascular anatomy and physiology, cardiovascular pathologies and management, and adjunctive diagnostics.
9. Utilize assessment findings to formulate a field impression and implement the treatment plan for obstetric, neonatal, pediatric, geriatric, and chronic-care patients.

Employment Opportunities

Opportunities for paramedics include employment by fire and rescue service providers, hospitals, school systems, industry, ambulance and transportation services, local, state and federal government agencies, humanitarian relief organizations, and the military.

Program Requirements

PLEASE NOTE: This route to becoming a National Registry paramedic is only available to current nationally registered Advanced EMTs and Registered Nurses and approval by the Operational Medical Director of the program.

Additional Information

The paramedic curriculum is an academically rigorous program, but one having the potential to provide a rewarding career for participants. Admission to the program will be governed by the requirements for general admission to the College and the Commonwealth of Virginia Office of Emergency Medical Services. Individuals who have a felony conviction may not be eligible to take the certification exam.

Applicants must meet the following requirements:

- Be at least 18 years of age by the beginning of the program pursuant to Section 12VAC5-30-270A.1. of the Rules and Regulations of the Board of Health governing Emergency Medical Services.
- Be a high school graduate or have satisfactorily completed the GED.
- Have a current and valid certificate evidencing Emergency Medical Technician certification in Virginia pursuant to Section 12VAC5-30-290 of the Rules and Regulations of the Board of Health governing Emergency Medical Services.
- Possess and maintain current CPR certification.

Accreditation

This program is accredited by the Virginia Office of Emergency Medical Services and is offered in conjunction with Southwest Virginia and Virginia Highland Community Colleges. The program is also nationally accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, phone 727-210-2350.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
NREMT	AL, AK, AZ, AR, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY	IL, MT	

Further information regarding EMS certifications may be found at: https://nasemso.org/

Statement for Emergency Medical Services (EMS):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Emergency Medical Services Technology program provides the following information for all prospective and current students:

The National Assoc. of EMS Officials (NASEMSO) has ruled EMS provider licensure and certification to be synonymous and National Registry certification is recognized for reciprocity in 48 of our 50 states.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Academic Requirements

Any student receiving a grade of less than "C" in any of the required program courses will be placed on programmatic academic probation. That course shall be remediated once, with a written contract drafted containing the requirements of the remediation. Remediated courses must be completed with a final grade of "C" or better. Dismissal from the program shall result if the student does not meet the requirements of the contract.

Clinical and Behavioral Requirements

Selected and supervised student clinical experience is required by the program and will be accomplished at selected, regional health care facilities. The student is responsible for transportation to these facilities, as well as to any scheduled field trips or combined program classes. Program preceptors will observe and evaluate the student's aptitude for the profession. If the student does not exhibit those documented behaviors required of the EMS professional, the student may be asked to withdraw from the program.

Physical Requirements

An EMS provider is faced with many physical and psychological challenges. Please refer to the Office of Emergency Medical Services web site for a more detailed functional job description.
http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-14AALS-Functional-Job-Description-1-2-20.pdf

Selection Process

To be eligible for selection to the program, interested persons should complete the following process by May 15:

- Submit a college admission application.
- Submit an application to the program (separate document) with required attachments.
- Take the Program Entrance Exam.
- Take the VPT placement test (or submit ASSET, COMPASS, SAT or ACT scores). To enroll in EMS courses the student must test above ENF 1 and MTE 1 or the equivalent as determined by VCCS Multiple Measures guidelines.
- Have transcripts of previous college courses sent to MECC.
- Have high school transcripts sent to MECC.

After May 15th the first round of students will be selected. Selection will be based on previous college coursework, entrance exam score, and college placement reading scores. Should openings still be available, persons who apply or meet requirements after May 15 will be considered.

Other Requirements

In addition to basic college costs such as tuition and fees, this program requires expenditures for uniforms, books, liability insurance, CPR certification, immunizations and physical, testing fees, certification courses and some medical equipment items. Students are also responsible for their own transportation to clinical sites. Applicants accepted to the program are required to submit a health certificate signed by a licensed physician or nurse practitioner and should include documentation of measles, seasonal flu, mumps, Hepatitis B, Rubella (MMR) and chicken pox exposure, TB testing, and overall general health of the applicant. A criminal background check and drug screening is also done to confirm compliance with state regulations. See http://www.vdh.virginia.gov/content/uploads/sites/23/2016/05/TR-35-Prereqs-and-Conduct-3-5-19.pdf Students who elect to take support courses recommended by the Program Director prior to formal acceptance into the program will find this activity to be advantageous in subsequent course scheduling.

For Further Information, Contact:

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Bill Akers, EMS Program Director

Bill.Akers@sw.edu

276.964.7729

Program of Study

First Semester

EMS 123 - EMS Clinical Preparation

1 Credits

Introduces the student to local clinical agencies and prepares the student for clinical activities above the level of EMT. Includes prerequisites required by clinical affiliates, therapeutic communication, primary assessment, history taking, secondary assessment, reassessment, monitoring devices and documentation.
Prerequisite EMS Program Placed
Lab hours 2
Note Typically Offered: Fall

EMS 221 - Paramedic Cardiovascular Care

3 Credits

Covers in-depth assessment and management of cardiovascular conditions, as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 222: Paramedic Cardiovascular Care Laboratory.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

EMS 222 - Paramedic Cardiovascular Care Laboratory

1 Credits

Focuses on skills involved in the assessment and management of cardiac-related emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Develops competency in basic dysrhythmia recognition and overall cardiac patient care.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 221: Paramedic Cardiovascular Care.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 223 - Paramedic Patient Care I

3 Credits

Covers the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service

Education Standards (NEMSES) for Paramedics. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 224: Paramedic Patient Care I Laboratory.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

EMS 224 - Paramedic Patient Care I Laboratory

1 Credits

Covers the skills related to the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 223: Paramedic Patient Care I.
Lecture Hours 0
Lab hours 2
Note Typically Offered: Fall

EMS 241 - Paramedic Internship I

2 Credits

Introduces students to live patient assessment and management in the clinical and field setting. Begins a continuum of learning involving live patients that leads to entry-level competence at the paramedic level. Part I of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 0
Lab hours 6
Note Typically Offered: Fall

Second Semester

EMS 225 - Paramedic Patient Care II

5 Credits

Covers the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Corequisite EMS 226: Paramedic Patient Care II Lab.
Lecture Hours 5
Lab hours 0
Note Typically Offered: Spring

EMS 226 - Paramedic Patient Care Laboratory II

2 Credits

Covers the skills related to the depth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.

Corequisite EMS 225: Paramedic Patient Care II.
Lecture Hours 0
Lab hours 4
Note Typically Offered: Spring

EMS 246 - Paramedic Internship II

2 Credits

Introduces students to live patient assessment and management in the clinical and field set. Continues the learning experience with live patients that leads to entry-level competence at the paramedic level. Part II of II.
Prerequisite Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.
Lecture Hours 0
Lab hours 6
Note Typically Offered: Spring

Third Semester

EMS 210 - EMS Operations

1 Credits

Focuses on matters related to Emergency Medical Services (EMS) operations, incident and scene safety and awareness, triage, multiple and mass casualty incident operations and medical incident management (command and control of EMS incidents).
Prerequisite EMS 125, EMS 126, EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142.
Lab hours 2
Note Typically Offered: Spring

EMS 212 - Leadership and Professional Development

1 Credits

Focuses on the development of leadership within the field of Emergency Medical Services (EMS), topics include civic engagement, personal wellness, resource management, ethical considerations in leadership and research.
Prerequisite EMS 125, EMS 126, EMS 135, EMS 136, EMS 137, EMS 138, EMS 139, EMS 140, EMS 141, EMS 142.
Lecture Hours 1
Note Typically Offered: Spring

EMS 163 - Prehospital Trauma Life Support (PHTLS)

1 Credits

Prepares for certification as a Prehospital Trauma Life Support provider as defined by the American College of Surgeons.
Prerequisite EMS 111 or equivalent.
Lecture Hours 1
Note Typically Offered: Spring

EMS 164 - Advanced Medical Life Support

1 Credits

Covers current topics of care for adult patients suffering extensive medical conditions and emergencies, and offers certification as an Advanced Medical Life Support (AMLS) as defined by the National Association of Emergency Medical Technicians (NAEMT).
Lecture Hours 1
Note Typically Offered: Spring

EMS 165 - Advanced Cardiac Life Support - ACLS

1 Credits

Prepares for certification as an Advanced Cardiac Life provider. Follows course as defined by the American Heart Association.
Prerequisite EMS 100 or equivalent.
Lecture Hours 1
Note Typically Offered: Spring

EMS 167 - Emergency Pediatric Care (EPC)

1 Credits

Provides a unique approach to pediatric medical care, offering assessment techniques that can help EMS practitioners rapidly and accurately assess pediatric patients to determine which situations may be life threatening and require immediate intervention. Offers certification as defined by the National Association of Emergency Medical Technicians (NAEMT).
Prerequisite EMS Program Placed.
Lecture Hours 1
Note Typically Offered: Spring

EMS 216 - Paramedic Review

1 Credits

Provides the student with intensive review for the practical and written portions of the National Registry Paramedic exam. May be repeated once, for credit.
Prerequisite EMS Program Placed.
Lab hours 2
Note Typically Offered: Spring

EMS 249 - Paramedic Capstone Internship

2 Credits

Provides summative evaluation of the Paramedic student in the cognitive, psychomotor, and affective domains.
Prerequisite EMS 202, EMS 203, EMS 204, EMS 206, EMS 247, EMS 248.
Note Typically Offered: Spring

Eligible to take the AHA ACLS certification exam, and the NAEMT's PHTLS, AMLS, and EPC certifications exams. Also, eligible to take the National Registry Emergency Medical Technician Paramedic Exam.

Total Program Credits: 29

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Program only available for EMT Intermediates with a minimum three years of documented experience per Operational Medical Director.

Health Sciences, CSC

Purpose

The Health Sciences Career Studies Certificate is designed for students preparing for admission through a selective/competitive process to a healthcare certificate or degree program. Although some courses are standard, each track will differ to some degree. Students are encouraged to work closely with their assigned advisor to prepare the strongest program application. The advisor will also assist students with the various individual program application processes.

Program Learning Outcomes:

Upon successful completion, students will be able to:

1. Earn credits that prepare them for entry into competitive admissions healthcare educational programs.
2. Demonstrate understanding of the various options for healthcare careers that are available to pursue.
3. Participate in laboratory experiences that increase their knowledge of the human body.
4. Increase their skills in communicating verbally, in writing and using electronic methods.
5. Participate in classroom activities that increase their understanding of providing care for individuals with acute, chronic, or life-threatening physical, psychological, and psychosocial health conditions

Employment Opportunities

Completion of this certificate prepares a student to competitively seek admission to a selective admissions healthcare program. Various elective course options may prepare a student for employment as a pharmacy technician, emergency medical technician, or nursing assistant.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Sarah Clarkston, Health Sciences Advisor

sclarkston@mecc.edu

276.523.9010

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3

Lab hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

Student Receives AHA BLS for Healthcare Provider CPR Certification

Second Semester

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- Electives **10 Credits**

*Student Eligible to Take the National Registry Emergency Medical Technician Exam

**Student Eligible to Take the Virginia Board of Nursing Certified Nurse Aide Exam

***Student Eligible to Take the Pharmacy Technician Certification Board Exam

Total Program Credits: 29

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Please see your advisor as selective admission healthcare programs require different electives.

Mammography Advanced Studies (SWCC), CSC

Purpose

The Career Studies Certificate in Mammography Advanced Studies is designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of the advanced studies curriculum (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination leading to advanced certification as a Registered Radiographer in Mammography by the ARRT.

Advanced Studies Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate competence in the essential aspects of Mammographic imaging at the entry-level.
2. Understand the importance of life-long continuing education in the field of Mammographic imaging .

Employment Opportunities

Employment opportunities for well-trained registered mammographers are available in hospitals, clinics, education, industry, government agencies, and private offices.

Advanced Studies Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Admission Requirements

The student in Mammography must have completed an approved program in radiography. The student must be registered (or registry eligible) by the appropriate certification agency (ARRT). All students must have a current CPR certification and must maintain that certification throughout the program. Applicants must have maintained a "C" average in past program courses in the discipline or certification. Applicants must provide the following to be considered for admission.

- Application to SWCC or VHCC
- Official transcripts of all other colleges attended submitted to the admissions office at either SWCC or VHCC
- Completed Mammography advanced studies application submitted to Donna Corns at donna.corns@sw.edu
- Copy of current ARRT certification card submitted to Donna Corns at donna.corns@sw.edu
- Copy of current CPR certification by the American Heart Association

The student in Mammography Advanced Studies must abide by all community college policies as well as hospital policies while enrolled in advanced studies.

Additional Information

Advanced Studies Requirements:

Upon admission and during the course of study, the college and hospital faculty will carefully observe and evaluate the student's progress. If, in the opinion of the faculty, a student does not exhibit professional behavior, the student will be asked to withdraw from advanced studies.

Students will not be eligible to receive the certificate until a grade of "C" or better is obtained in each of the required courses. Before entering the clinical areas, the student must receive complete clinical clearance. Please see Ms. Corns for details.

This curriculum is typically offered in a 10-week summer session.

Criminal Background Check/Drug Screening/Vaccinations and Testing

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the advanced studies. Students must provide documentation of a recent PPD TB skin test and up-to-date vaccinations for MMR, Varicella, Hepatitis B, and seasonal influenza. Other requirements may be specified by various clinical affiliates. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the advanced studies. Cost for criminal background checks, vaccinations, PPD testing, HIPAA training, and drug testing will be the responsibility of the student.

- If you require the RAD 196 clinical education (75 total clinical hours):
    - Copy of current CPR certification by the American Heart Association
    - Current PPD
    - Immunization records (Varicella, MMR, Hepatitis B, Flu)
    - *HIPAA training, criminal background check, and drug screen will be required at the student's cost (approximately $95). Hospital facility orientation will be required. These must be complete before the student can begin clinical education. The faculty will provide instructions to students who are accepted into the Mammography Advanced Studies track.

For Further Information, Contact:

Sarah Clarkston, Health Sciences Advisor

sclarkston@mecc.edu

276.523.9010

Donna Corns, Program Coordinator

Donna.corns@sw.edu

276-964-7642

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Year Spring

- RAD 233 - Anatomy and Positioning of the Breast **1 Credits**
- RAD 234 - Breast Imaging/Instrumentation **1 Credits**
- RAD 235 - Quality Assurance in Mammography **1 Credits**
- RAD 196 - Clinical Internship in Mammography **1 Credits**

Eligible for the National Registry Examination Leading to Advanced

Certification as a Registered Technologist in Mammography by the ARRT

Total Program Credits: 4

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information. Applicants must be ARRT registered.

This curriculum is typically offered in a 10-week summer semester. Students have the option of NOT completing the RAD 196 clinical class requirement; however, without clinical competencies, the student is ineligible to apply to sit for the ARRT Registry examination, nor does the student complete MQSA requirements. Students can complete those competencies through employment, if their employer provides those cross-training opportunities.

Medical Laboratory Technology (WCC), AAS

Purpose

The Medical Laboratory Technology curriculum is a concentrated course of study and coordinated practice designed to prepare students with the knowledge and skills necessary for entry-level employment in the medical field as a contributing health professional. Upon satisfactory completion of program requirements, the student is eligible to take a national registry examination for certification as a Medical Laboratory Technician and is eligible for employment in a variety of medical and scientific laboratory settings. The program is fully approved by the State Council of Higher Education and the National Accrediting Agency of Clinical Laboratory Sciences (NAACLS).This program is being provided through an innovative, cooperative arrangement between Wytheville Community College and Mountain Empire Community College. Students will register at MECC for their general education course requirements and register through WCC for their program courses. However, all course offerings and clinicals will be provided on the MECC campus and at regional healthcare facilities. The AAS degree will be awarded by Wytheville Community College. Opportunities for Employment Opportunities for MLTs include employment at hospital clinical laboratories, reference and industrial laboratories, pharmaceutical firms, independent clinical laboratories, service agencies, physicians' offices, clinics, government agencies, research institutions and the armed forces.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Perform routine clinical laboratory procedures within acceptable quality control parameters in Hematology,Chemistry, Immunohematology, and Microbiology under the general supervision of a Clinical Laboratory Scientist or Pathologist.
2. Demonstrate technical skills, social behavior, and professional awareness incumbent upon a laboratory technician as defined by the American Society for Clinical Laboratory Science and the American Society of Clinical Pathologists.
3. Effect a transition of information and experiences learned in the MLT program to employment situations and performance on the written examinations conducted by the American Society of Clinical Pathologists and/or the American Medical Technologists for Clinical Laboratory Personnel.
4. Apply systematized problem solving techniques to identify and correct procedural errors, identify instrument malfunctions and seek proper supervisory assistance, and verify the accuracy of laboratory results obtained.
5. Operate and maintain laboratory equipment, utilizing appropriate quality control and safety procedures.
6. Perform within the guidelines of the code of ethics of the American Society for Clinical Laboratory Science, the American Society of Clinical Pathologists, and the restrictions established by state and local regulatory groups.
7. Recognize and participate in activities which will provide current knowledge and upgrading of skills in laboratory medicine.

Employment Opportunities

Opportunities for MLTs include employment at hospital clinical laboratories, reference and industrial laboratories, pharmaceutical firms, independent clinical laboratories, service agencies, physicians' offices, clinics, government agencies, research institutions and the armed forces.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Applicants must be high school graduates or the equivalent. In order to meet the admission requirements, the applicant must have completed:

1. A WCC application (including all high school and college transcripts or copy of GED by February 15.
2. Competency in English and Math Essentials MTE 1-9 (or MDE 10 and MDE 60) as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE units or equivalent. All developmental courses must be completed the spring semester before entering the program in the fall of the next academic year.*
3. High school biology or equivalent (one unit) with at least "C".
4. High school chemistry or equivalent (one unit) with at least "C".
5. A 2.0 average for high school courses or a 2.0 cumulative average for all college course work.**
6. Shadowing hours in selected program to be determined by program head.
7. Take the TEAS Test for Allied Health.
8. An interview/information session with the program head or designee.

*Students who have completed all academic requirements prior to the February 15th deadline will be admitted first. Students completing developmental coursework in the spring will be admitted to any remaining unfilled slots in the program, based on the selective admission criteria.

**If the student has completed a minimum of 12 college credits that are included in calculating the college GPA (non-developmental courses), the 2.0 high school GPA requirement will be waived.

In the event there are more applicants who apply in a given year than there are slots available the college will employ selective admission. Please consult the Health Professions Admission Packet for a detailed description of the selective criteria.

Additional Information

Program Requirements

Upon admission to the Medical Laboratory program, the following are necessary:

1. The student must have a complete medical examination, which must include a 2-step tuberculin skin test, a profile of medical condition, designated immunizations, and documentation of HBV and varicella status. A chest x-ray is required only if the tuberculin test is positive. Cost for the medical examination and all necessary testing will be the responsibility of the student.
2. The student must obtain a criminal background check and urine drug screen (see below). Costs will be the responsibility of the student.
3. The student must read the Essential/Technical Standards required for the program and indicate by signature readiness for physical requirements of the profession.
4. The student must maintain a minimum of a "C" grade in each Medical Laboratory course. The student must demonstrate the desire and capability to become a contributor of quality patient health care.
5. Clinical experience will be provided in affiliated hospitals or laboratories. Each student will be responsible for transportation to and from the hospital and must also secure the required apparel.

Criminal Background Check/Drug Screening

Background checks for criminal history and sex offender crimes and urine drug screens are required for admission to clinical sites. Students with convictions and/or positive tests may be prohibited from clinical practice and may not complete the program. Costs for criminal background checks and urine drug screens will be the responsibility of the student.

For Further Information, Contact:

Sarah Clarkston, Health Sciences Advisor

sclarkston@mecc.edu

276.523.9010

Dawn Warren, Program Head, WCC

dwarren@wcc.vccs.edu

276.223.4827

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Year Fall

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

CHM 111 - General Chemistry I

4 Credits

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Students must earn a grade of C or higher in the lecture portion of the course to earn an overall grade of C or higher. Part I of II. This is a Passport and UCGS transfer course.
Prerequisite MTH 161 and Readiness for ENG 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

- MDL 101 - Intro to Med Lab Techniques **3 Credits**
- MDL 127 - Hematology **3 Credits**

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- MDL 126 - Clinical Immunohematology & Immunology I **4 Credits**

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe

microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- MDL 261 - Clinical Chemistry & Instrumentation I **4 Credits**

Second Year Summer

- Humanities/Fine Arts Elective **3 Credits**
- Social/Behavioral Science Elective **3 Credits**
- MDL 199 - Supervised Study in Phlebotomy & Lab Math **2 Credits**
- MDL 130 - Basic Clinical Microbiology **3 Credits**

Second Year Fall

- MDL 190 - Coordinated Practice **2 Credits**
- MDL 225 - Clinical Hematology II **3 Credits**
- MDL 240 - Clinical Microscopy II **2 Credits**
- MDL 252 - Clinical Microbiology II **3 Credits**
- MDL 262 - Clinical Chemistry & Instrumentation II **4 Credits**

Second Year Spring

- MDL 227 - Clinical Immunohematology/Immunology II **3 Credits**
- MDL 263 - Clinical Chemistry & Instrumentation III **3 Credits**
- MDL 275 - Clinical Hematology III **3 Credits**
- MDL 279 - Clinical Microbiology III **2 Credits**
- MDL 290 - Coordinated Practice **2 Credits**

Eligible to Take a National Registry Examination for Certification as a Medical Laboratory Technician

Total Program Credits: 72

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

BIO 231 will substitute for BIO 141 and BIO 231 will substitute for BIO 142.

Nursing - Track 1: Two-Year, AAS

Purpose

The mission of the Mountain Empire Community College Nursing Program (AAS in Nursing degree) and other nursing programs of the Virginia Community College System (VCCS) is to provide affordable, community access to quality nursing education. The VCCS nursing programs prepare qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. Upon successful completion of the program, qualified graduates have the opportunity to apply to take the National Council Licensure Examination (NCLEX-RN) leading to licensure as a registered nurse.

Program Learning Outcomes

Upon successful completion of the curriculum, students are expected to be able to incorporate competencies that accomplish the following outcomes:

1. Client-Centered Care - Provide client-centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
2. Safety - Practice safe nursing care that minimizes risk of harm across systems and client populations.
3. Clinical Judgment - Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence-based practice in the provision of safe, quality care
4. Professional Behaviors - Practice professional behaviors that encompass the legal/ethical framework while incorporating self-reflection, leadership and a commitment to recognize the value of life-long learning.
5. Quality Improvement - Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcomes
6. Collaboration - Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

Program Description

The two-year Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the healthcare team, rendering direct patient care as beginning practitioners of nursing in a variety of healthcare settings. Track 1 offers eligible students the opportunity to complete the nursing degree program after two years of fulltime attendance (1 summer session and 4 semesters). This is a rigorous and academically challenging program.

Employment Opportunities

The occupational objective of nursing graduates is to secure and sustain employment as a registered nurse providing nursing care to individuals, families, communities, and/or populations in a variety of healthcare settings.

Program Requirements

Admission to the nursing program is a selective and competitive process. The program is open to applicants who are free of any physical or mental condition that might adversely affect performance as a member of the nursing

profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

- Transcript showing graduation from a state recognized high school, a home school program and be at least 18 years of age, or General Educational Development (GED) program .
- College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
- Demonstrated competency in science as evidenced by completion of high school biology (with laboratory) or high school chemistry (with laboratory) or the college equivalents or completion of BIO 141 and BIO 142 with no grade below a "C" prior to application deadline.
- Demonstrated competency in mathematics as evidenced by placement out of MTE 1-5 on the Virginia Placement Test (VPT) or completion of MDE 10 or a college math course (MTH 154 or higher). For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Demonstrated competency in English as evidenced by placement into or completion of ENG 111. For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline
- Completion of the Test of Essential Academic Skills (TEAS) with a National Percentile Rank score of 45 or above within the past 5 years
- Completion of Nursing Program Application for each academic year interested in being considered for the nursing program
- A 2.5 curricular grade point average (GPA) for the following six general education courses: BIO 141, ENG 111, SDV 100, PSY 230, LBR 105 and NUR 135 is required for the nursing program. **These courses and all pre-requisites in the bullets above must be completed prior to enrollment in any nursing (NSG) course.**
- Students must not have been enrolled in the first semester of the nursing program (NSG courses) more than one time. After two attempts in NSG courses, students are ineligible for admission consideration unless permission is obtained from the nursing program coordinator.

NOTE: Applicants who meet the requirements listed above will be ranked for admission using their ATI TEAS National Percentile Rank

Applications for the nursing program are accepted from the start of the academic year. The application deadline is February 15 of each year. All admission requirements (including English, science and math competencies) must be met and all documents submitted by the February 15 deadline. Late applicants may apply for consideration should there be space available. The nursing program application is available online and further details of the application process may be found at http://www.mecc.edu/forms/.

The number of qualified applicants offered admission to the nursing program is contingent upon space available in the classrooms and nursing laboratories, the program's access to sufficient clinical placements in the region's healthcare settings in order to meet the program's learning outcomes, and the number of qualified nursing faculty to teach students in classrooms, laboratories, and clinical settings. If the number of applicants exceeds the number of available qualified faculty and the amount of enrollment space available in the program, some applicants may not be accepted even if the minimum requirements for admission are met.

Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the Admissions Application and the Nursing Application.

Although applications are welcome from residents of other jurisdictions, first priority will be given to all qualified applicants who are domiciled residents of Lee, Wise, Scott, and Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a nursing program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the college and that they meet the minimum admission requirements. A domiciled resident is one who has been a permanent resident in the locality or state for the twelve months before the program application deadline. In addition, residents of localities with

which the college has clinical-site affiliation may receive equal consideration for admission. Please contact Enrollment Services immediately upon applying to the program with any questions regarding jurisdiction.

The nursing program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors, as well as students, clinical agencies require that each student have proof of completion of the following:

1. Required Student Forms
2. Annual Student Statement of Health form
3. Student Information, Physical and Immunization forms. The nursing program physical examination form must be completed by a healthcare practitioner, MD, PA or NP-C.
    1. Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, and COVID
    2. Proof of negative two-step TB Skin Test (TST) or proof of negative approved TB screening blood test. If a person has a previously documented positive TB screening test or a documented diagnosis of TB or Latent TB Infection (LTBI) in the past, an annual risk assessment/symptom check must be performed by your healthcare provider. Chest x-ray is only required if symptoms develop.
    3. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and Document Package
5. Clearance of criminal background check and drug testing
6. Proof of American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" or American Red Cross Professional Rescuer. CPR course completed Prior to August 15 for Track 1 students.
7. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and should be obtained when instructed to do so.
8. Personal health insurance
9. Other mandatory clinical facility requirements including professional responsibilities and patient confidentiality statements

Students should not attempt to complete any of these requirements until they have been admitted to the nursing program and completed the mandatory orientation modules.

The cost of these requirements is the responsibility of the student. The rqeuirements must be completed by August 15 for Track 1 students.

Additional Information

NCLEX-RN Licensure Examination Pass Rates, Program Completion, and Employment Data

Year of Graduation	Program Completion Rate	Program NCLEX-RN Pass Rate*	National NCLEX-RN Pass Rate All US Graduates*
2021 (N=57)**	88%	73.68%	78.78%
2022 (N=50)	47.6%***	78.18%	77.91%
2023 (N=43)	76.7%***	97.67%	88.56%

*NCLEX National Statistics from www.NCSBN.org
**2021 were the first graduates of the MECC Nursing Program. Previously the nursing program at MECC was part of the consortium program Virginia Appalachia Tricollege Nursing Program.

***Prior to 2022 completion rates calculated by student completing in 150% of length of program. ACEN changed formula to graduating on time. This calculation reflects that formula change.

Statement for Nursing Program (ADN):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The Mountain Empire Community College ADN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia. In addition, the ADN nursing program at Mountain Empire Community College located in Big Stone Gap, Virginia is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326

(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the ADN nursing program is Continued Accreditation with Conditions.

View the public information disclosed by the ACEN regarding this program at http://www.acenursing.us/accreditedprograms/programSearch.htm.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 8, 2023.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
RN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, RI, OH, OK, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI, WY	NV and OR	US Virgin Islands Guam Alaska California Connecticut District of Columbia Hawaii Illinois

			Massachusetts Michigan Minnesota New York Pennsylvania

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*

Clinical Contracts

Individual contracts are in effect with each affiliate clinical agency and these contracts differ in requirements for students. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. In general, contracts include the following:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed.
3. Students must wear the proper uniform, adhering to program and healthcare agency standards.
4. Students must attend and complete the healthcare agency's orientation program prior to participating in clinical activities.
5. Clinical agencies require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
6. Students must meet health, immunity, and immunization requirements.
7. Student releases clinical agencies, its agents and employees from any liability for any injury or death to self or damage to personal property arising out of the clinical agreement or use of the clinical agency's facilities. Students must sign an Assumption of Risk document that serves to provide a general outline of hazards encountered within nursing. This list includes exposure to infectious, biological, chemical, environmental/mechanical, and psychosocial hazards, as well as, loss of personal property.
8. Student is financially responsible for any medical care required while in the clinical setting.
9. Student must provide current copy of course completion card for American Heart Association CPR BLS for Healthcare Provider or American Red Cross CPR for Professional Rescuer.
10. Student must successfully complete Health Insurance Portability & Accountability Act (HIPAA) training during first semester of nursing classes.
11. Student must complete a criminal background check and drug screen. Drug screen must be repeated annually during the program. A health care agency may deny a student participation in direct patient care based on results of the criminal background check and/or drug screen.
12. Demonstration of professional behavior is expected at all clinical learning experiences. Faculty will direct a student to leave the learning environment if unacceptable behaviors are observed.
13. Clinical agencies may require personal health insurance as a condition for student placement.
14. Student must submit required clinical documents with each clinical rotation. A student who does not meet published deadlines for submission forfeits his/her enrollment.
15. If a student is dismissed by a clinical agency, alternate placement (if available) will require disclosure of information related to the dismissal. The student must consent to disclosure through completion of a Family Education Rights & Privacy Act (FERPA) form.

Important Note: All prospective students are required to be eligible to participate in all clinical facilities where the nursing program is contracted to provide clinical instruction and supervision. Students who are not eligible for rehire in any facility may be excluded from clinical experiences, and thus may forfeit their seats in the nursing program. Students will be asked to disclose, upon admission, if they are current or former employees of any regional healthcare agencies.

Course Requirements

The student is required to complete the sequence of courses as outlined by the curriculum pathway.

- All courses, general education and nursing, must be completed in sequence prior to continuing in the program. Exceptions due to unusual circumstances must be approved by the program coordinator.
- A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the nursing program.
- The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.
- The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

Criminal Background Checks/Barrier Crimes

The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts. For a list of crimes under this category refer to https://www.dhp.virginia.gov/media/dhpweb/docs/nursing/guidance/90-55.pdf. Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses as identified below. Students are responsible for these costs as well as the cost of transportation to and from the college and health agencies used for clinical experiences.

Pre-Admission Testing (Test of Essential Academic Skills or TEAS)	$70.00
Uniforms/Shoes/Watch/Stethoscope	$400.00
Standardized Progressive Testing Program	$1360.00
Textbooks/Electronic Resources Digital Devices	$1200.00 $500 - $1000
CastleBranch© Criminal Background Check, Document Manager, Drug Screen	$133.00
Physical Exam, Immunizations, TB test	$250.00
AHA CPR BLS for Healthcare Providers	$162.11
Estimated Track 1 In-state Tuition 67 credit hours @ $162.11 per credit hour	$10,861.37
NCLEX-RN Application Fees	$436.00
Transportation (to and from college and clinical agencies)	Variable

These costs are estimates and are subject to change without notification to faculty or students.

Core Performance Standards for Admission to and Progression through the Nursing Program

In addition to the nursing program's admission requirements, the nursing program sets forth eligibility requirements by citing the core performance standards. The standards set forth cognitive, sensory, affective and psychomotor performance requirements for every nursing student. Each core performance standard is accompanied by examples of activities nursing students and nurses are required to perform while executing nursing care. Students must be able to demonstrate satisfactory application of these core performance standards in classroom, clinical and laboratory settings, with or without reasonable accommodations, during the course of the nursing program.

Requirement	Performance Standard	Examples
Critical Thinking	Critical thinking ability sufficient for clinical judgment and delivery of safe client care	--Identify cause and effect relationships in clinical situations; --Evaluate effectiveness of nursing interventions; --Use the scientific method in the development of nursing interventions; --Prioritize nursing tasks and solve problems
Quantitative Literacy	Quantitative literacy sufficient for clinical judgment and delivery of safe client care	--Ability to take measurements; perform arithmetic and numerical operations (such as is necessary for calculating medication dosages and rates); --Read and record graphical displays of scientific and real-time physiologic data
Professional Relationships	Interpersonal and emotional skills sufficient for professional interactions with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds	--Establish rapport with clients and colleagues; --Ability to engage in conflict resolution, demonstrate peer accountability; --Adapt to changing environments/stressors; perform multiple responsibilities concurrently; establish therapeutic boundaries
Communication	Ability for professional interactions with others in verbal, non-verbal and written form	--Explain treatment procedures; initiate health teaching; document and interpret nursing actions and client responses; --Ability to interpret common non-verbal expressions indicating pain, discomfort, anxiety and other behavioral states
Mobility/ Endurance	Physical abilities sufficient for movement from room to room and in small spaces; ability to execute movements required to provide care and treatment to clients in all health settings including functioning in emergency situations	--Move around in client rooms, work spaces and treatment areas; --Administer cardiopulmonary resuscitation; --Walk and/or stand for prolonged periods during a 12 hour shift --Perform lifting, as required, up to 50 pounds

Motor Skills	Gross and fine motor abilities sufficient for providing safe, effective nursing care	--Ability to bend, squat, kneel, climb stairs, push, pull, reach for extended periods and assist in lifting, transferring, ambulating and positioning clients of all age groups and weights; --Calibrate and use equipment such as IV pumps; manipulate small equipment and containers such as syringes, vials and medication packages
Hearing	Auditory ability sufficient for monitoring and assessing health needs	--Ability to hear alarms and other emergency signals, normal speaking level sounds, cries for help and auscultatory sounds on assessment
Visual	Visual ability sufficient for observation and assessment necessary in client care	--Ability to observe client's condition and responses to treatments; --Ability to discern colors and changes in color shading; --Ability to read handwritten and printed data such as orders, medication labels, calibrations on syringes; --Ability to read chart content and interpret data correctly by clearly viewing monitors
Tactile Sense	Tactile ability sufficient for physical assessment	--Ability to sufficiently perform physical assessments including palpation, pulses, changes in skin temperature and anatomical appearance

Student Accommodations Statement

The nursing program is committed to the policies set forth by the Virginia Community College System regarding disabilities and reasonable accommodations. Students may request academic accommodations for disabilities through the Office of Student Services. The Disabilities Coordinator will evaluate the request and make recommendations for appropriate and reasonable accommodations, which the student will provide to the instructor. Individuals requiring temporary parking accommodations due to short-term illness should also contact Student Services. All correspondence will be kept confidential.

The Disability Services web page can be found at https://www.mecc.edu/disabilityservices. The Disability Services Counselor should be contacted for an appointment at least 2 weeks prior to the beginning of nursing classes if an accommodation is requested. Success is contingent upon the ability to fulfill the core performance standards of the program with or without reasonable accommodations.

Reapplication/Readmission/Program Progression Process

All courses in the curriculum, both general education and nursing, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of "C" (80) in all nursing courses, a minimum grade of "C" in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. A student may enroll only in the nursing courses listed in his/her current semester in the nursing program. Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course. In addition, during the NSG 106 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify dosage calculation skills. Students must achieve at least 90 percent of maximum score on the CDCE with no more than three attempts in order to achieve a passing grade in the course.

- Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program. Reenrollment must occur no later than three years from successful completion of NSG 100 or NSG 115, otherwise the student will have to repeat all nursing courses.
- Any student who drops or withdraws from NSG 106 or NSG 200 must also drop or withdraw from NSG 100 due to the inability to complete clinical requirements.
- A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 100 and/or NSG 106.
- Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course as they are corequisites.
- A student who has 2 academic failures (grades below a "C") in nursing courses, other than first semester courses, will be ineligible for reenrollment in the program unless the student obtains licensure as a practical nurse. The student may then apply to Tracks 2 and 4.
- A student who wishes to reenter the nursing curriculum at any other level (e.g., NSG 152, NSG 170, NSG 210, NSG 211, NSG 230, NSG 252, NSG 270) must write a letter to the nursing program coordinator requesting readmission in the semester prior to the semester of enrollment. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional requested data, prior performance in the nursing program, and space availability. Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills before progressing to the next level.
- According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the Nursing Program Coordinator and the Vice President of Academic Affairs and Workforce Solutions.

A student must obtain permission from the nursing program coordinator to continue in the nursing program under the following conditions:

- Repeating a course with a grade below "C";
- Withdrawal from a nursing course;
- Cumulative GPA below 2.0.

Transfer of Nursing Credit

Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by MECC and the nursing program. The student will be asked to provide course descriptions, documentation of completed direct patient care clinical hours, course syllabi, achievement or progressive testing scores, and selected data from the course instructor or program coordinator in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression and courses may need to be repeated. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experience providing direct patient care supervised by a qualified instructor. First semester nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program. If the first semester nursing courses were taken three or more years prior to admission then no nursing courses can be transferred.

Decisions on admission offers to transferring applicants will be determined by the nursing program coordinator following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills.

For Further Information, Contact:

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Program of Study

First Year Summer

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are

applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

NUR 135 - Drug Dosage Calculations

2 Credits

Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates.
Prerequisite MDE 10; MTE/XDG1-5; SG - JM60; J161; or JALL
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

LBR 105 - Library Skills For Research

1 Credits

Introduces students to accessing, retrieving, evaluating, and applying a variety of digital and print information resources. Develops an understanding of the type of information provided in each of the information formats presented: reference, cataloged materials, magazines/journals, newspapers, and Internet sites. Provides background information, available resources, search techniques, sample searches, evaluation guides, and exams in each of the course units.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Fall

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

NSG 100 - Introduction to Nursing Concepts

4 Credits

Introduces concepts of nursing practice and conceptual learning. Focuses on basic nursing concepts with an emphasis on safe nursing practice and the development of the nursing process. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 or BIO 231 and Admission to Nursing
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

NSG 106 - Competencies for Nursing Practitioners

2 Credits

Focuses on the application of concepts through clinical skill development. Emphasizes the use of clinical judgment in skill acquisition. Includes principles of safety, evidence-based practice, informatics and math computational skills. Prepares students to demonstrate competency in specific skills and drug dosage calculation including the integration of skills in the care of clients in simulated settings. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite MTE 1-5 and BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 0
Lab hours 6
Note Typically Offered: Fall

NSG 130 - Professional Nursing Concepts

1 Credits

Introduces the role of the professional nurse and fundamental concepts in professional development. Focuses on professional identity, legal/ethical issues and contemporary trends in professional nursing.
Prerequisite BIO 141 or BIO 231 or NAS 161
Lecture Hours 1
Note Typically Offered: Fall/Spring

NSG 200 - Health Promotion & Assessment

3 Credits

Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

Option: After Successful Completion Of NSG 100, (Which Includes 45 Direct Patient Care Hours), Students Are Eligible To Challenge The Certified Nurse Aide Exam

First Year Spring

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

NSG 152 - Health Care Participant

3 Credits

Focuses on the health and wellness of diverse individuals, families, and the community throughout the lifespan. Covers concepts that focus on client attributes and preferences regarding healthcare. Emphasizes population-focused care.

Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or cooperating agencies, and/or simulated environments.
Prerequisite BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

NSG 170 - Health/Illness Concepts

6 Credits

Focuses on the nursing care of individuals and/or families throughout the lifespan with an emphasis on health and illness concepts. Includes concepts of nursing care for the antepartum client and clients with common and predictable illnesses. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200
Lecture Hours 4
Lab hours 6
Note Typically Offered: Fall/Spring

Second Year Fall

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

NSG 210 - Health Care Concepts I

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

NSG 211 - Health Care Concepts II

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

Second Year Spring

NSG 230 - Advanced Professional Nursing Concepts

2 Credits

Develops the role of the professional nurse in the healthcare environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings.
Prerequisite NSG 210 and NSG 211
Lecture Hours 2
Note Typically Offered: Fall/Spring

NSG 252 - Complex Health Care Concepts

2 Credits

Focuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration.
Prerequisite NSG 210 and NSG 211
Lecture Hours 4
Note Typically Offered: Fall/Spring

NSG 270 - Nursing Capstone

4 Credits

Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite NSG 210 and NSG 211
Lab hours 12
Note Typically Offered: Fall/Spring

- Humanities Elective **3 Credits**

Graduates are eligible to sit for the NCLEX-RN Examination to earn subsequent licensure if successful.

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Nursing - Track 2: Advanced Placement Option for LPN Transition, AAS

Purpose

The mission of the Associate of Applied Science Degree (AAS) in Nursing curriculum is to provide affordable, community access to quality nursing education. The nursing program prepares qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. Upon successful completion of the program, qualified graduates have the opportunity to take the National Council Licensure Examination (NCLEX-RN) leading to licensure as a registered nurse.

Program Learning Outcomes

Upon successful completion of the curriculum, students are expected to be able to incorporate competencies that accomplish the following outcomes:

1. Client-Centered Care - Provide client-centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
2. Safety - Practice safe nursing care that minimizes risk of harm across systems and client populations.
3. Clinical Judgment - Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence-based practice in the provision of safe, quality care
4. Professional Behaviors - Practice professional behaviors that encompass the legal/ethical framework while incorporating self-reflection, leadership and a commitment to recognize the value of life-long learning.
5. Quality Improvement - Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcomes
6. Collaboration - Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

Program Description

The Track 2 Advanced Placement Option for LPN Transition curriculum is designed to grant advanced placement to LPNs who have been admitted to the MECC Associate Degree program and meet pre-requisite requirements. If there is sufficient enrollment in the nursing program, students who meet the eligibility requirements for the advanced placement will take a transition course in the summer term then be eligible to take the sophomore level courses and graduate within one (1) academic year with an Associate of Applied Science degree in Nursing. The length of this track depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in one year.

Employment Opportunities

The occupational objective of nursing graduates is to secure and sustain employment as a registered nurse providing nursing care to individuals, families, communities, and/or populations in a variety of health care settings.

Program Requirements

Admission to the Mountain Empire Community College Nursing Program is a selective and competitive process. The program is open to applicants who are free of any physical or mental condition that might adversely affect performance as a member of the nursing profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

- Transcript showing graduation from a state recognized high school, home school program and at least 18 years of age, or General Educational Development (GED) Test program.
- College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
- Demonstrated competency in science as evidenced by completion of high school biology (with laboratory) or high school chemistry (with laboratory) or the college equivalents or completion of BIO 141 and BIO 142 with no grade below a "C" prior to application deadline.
- Demonstrated competency in mathematics as evidenced by placement out of MTE 1-5 on the Virginia Placement Test (VPT) or completion of MDE 10 or a college-level math course (MTH 154 or higher). For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Demonstrated competency in English as evidenced by placement into or completion of ENG 111 . For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Completion of the Test of Essential Academic Skills (TEAS) with a National Percentile Rank score of 45 or above within the past five years.
- Completion of Nursing Program Application for each academic year interested in being considered for the nursing program.
- Be a currently licensed practical nurse (copy of LPN license must be provided).
- Must have graduated from a PN program after May 15, 2020 or have at least one year (2000 hours) of full time LPN work experience in direct patient care during the past three years. (Written documentation myst be provided from employer(s)).
- Applicants to Nursing Track 2: Advanced Placement Option for LPN Transition Curriculum must complete 22 credits of general education courses prior to admission to the program: BIO 141 , BIO 142 , BIO 150 , ENG 111 , SDV 100 , PSY 230 , LBR 105 , and NUR 135 .
- A 2.5 curricular grade point average (GPA) for the following six general education courses: BIO 141 , ENG 111 , SDV 100 , PSY 230 , LBR 105 , and NUR 135 is required for the nursing program. These courses must be completed prior to enrollment in any nursing (NSG) course.
- Any student who does not have evidence on file in Enrollment Services by the February 15 application deadline indicating that these requirements will be met by the end of Spring semester (prior to the beginning of the first Nursing course) will not be considered for the Track 2: Advanced Placement Option for LPN Transition.
- Students must not have been enrolled in the first semester of the nursing (NSG courses) more than one time. After two attempts in NSG courses, students are ineligible for admission consideration unless permission is obtained from the nursing program coordinator.

NOTE: Applicants who meet the requirements listed above will be ranked for admission using their ATI TEAS National Percentile Rank.

Applications for the nursing program are accepted from the start of the academic year. The application deadline is February 15th of each year. All admission requirements (including English, science, and math competencies) must be met and all documents submitted by the February 15 deadline. Late applicants may apply for consideration should there be space available. The nursing program application is available online and further details of the application process may be found at http://www.mecc./forms/.

The number of qualified applicants offered admission to the nursing program is contingent upon space available in the classrooms and nursing laboratories, the program's access to sufficient clinical placements in the region's healthcare settings in order to meet the program's learning outcomes, and the number of qualified nursing faculty to teach students in classrooms, laboratories, and clinical settings. If the number of applicants exceeds the number of available qualified

faculty and the amount of enrollment space available in the program, some applicants may not be accepted even if the minimum requirements for admission are met.Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the MECC College Admissions Application and the Nursing Program Application.

Although applications are welcomed from residents of other jurisdictions, first priority will be given to all qualified applicants who are domiciled residents of Lee, Wise, Scott, and Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a nursing program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the college and that they meet the minimum admission requirements. A domiciled resident is one who has been a permanent resident in the locality or state for the twelve months before the program application deadline. In addition, residents of localities with which the college has clinical-site affiliation may receive equal consideration for admission. Please contact Enrollment Services immediately upon applying to the program with any questions regarding jurisdiction.

The nursing program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors, as well as students, clinical agencies require that each student have proof of completion of the following:

1. Required Student Forms
2. Annual Student Statement of Health form
3. Student Information, Physical and Immunization forms (must be completed by a healthcare practitioner, MD, PA or NP-C).
    1. Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, and COVID
    2. Proof of negative two-step TB Skin Test (TST) or proof of negative approved TB screening blood test. If a person has a previously documented positive TB screening test or a documented diagnosis of TB or Latent TB Infection (LTBI) in the past, perform an annual risk assessment/symptom check must be performed by your healthcare provider. Chest x-ray is only required if symptoms develop.
    3. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and document package
5. Clearance of criminal background check and drug testing
6. Proof of CPR completion, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" or American Red Cross Professional Rescuer CPR course completed prior to May 20 for Track 1 students.
7. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and should be obtained when instructed to do so.
8. Personal health insurance
9. Other mandatory clinical facility requirements including professional responsibilities and patient confidentiality statements.

Students should not attempt to complete any of these requirements until they have been admitted to the nursing program and completed the mandatory orientation modules.

The cost of these requirements is the responsibility of the student. These requirements must be completed by May 15 for Track 2 students.

Prior to enrollment in any NSG course, the student must provide the required clinical documentation.

Additional Information

NCLEX-RN Licensure Examination Pass Rates, Program Completion, and Employment Data

Year of Graduation	Program Completion Rate	Program NCLEX-RN Pass Rate*	National NCLEX-RN Pass Rate All US Graduates*

2021 (N=57)**	88%	73.68%	78.78%
2022 (N= 50)	47.6%***	78.18%	77.91%
2023 (N= 43)	76.7%	97.67%	88.56%

*NCLEX National Statistics from www.NCSBN.org
**2021 were the first graduates of the MECC Nursing Program. Previouisly the nursing program at MECC was part of the consortium program Virginia Appalachia Tricollege Nursing Program.

***Prior to 2022 completion rates calculated by students completing 150% of length of program. ACEN changed the formula to graduating on time. This calculation reflects that formula change.

Statement for Nursing program (ADN):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The Mountain Empire Community College ADN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia. In addition, the ADN nursing program at Mountain Empire Community College located in Big Stone Gap, Virginia is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326

(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the ADN nursing program is Continued Accreditation with Conditions.

View the public information disclosed by the ACEN regarding this program at http://www.acenursing.us/accreditedprograms/programSearch.htm.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 8, 2023.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
RN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, RI, OH, OK, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI, WY	NV and OR	US Virgin Islands Guam Alaska

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
			California Connecticut District of Columbia Hawaii Illinois Massachusetts Michigan Minnesota New York Pennsylvania

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*

Clinical Contracts

Individual contracts are in effect with each affiliate clinical agency and these contracts differ in requirements for students. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. In general, contracts include the following:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed.
3. Students must wear the proper uniform, adhering to program and healthcare agency standards.
4. Students must attend and complete the healthcare agency's orientation program prior to participating in clinical activities.
5. Clinical agencies require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
6. Students must meet health, immunity, and immunization requirements.
7. Student releases clinical agencies, its agents and employees from any liability for any injury or death to self or damage to personal property arising out of the clinical agreement or use of the clinical agency's facilities. Students must sign an Assumption of Risk document that serves to provide a general outline of hazards encountered within nursing. This list includes exposure to infectious, biological, chemical, environmental/mechanical, and psychosocial hazards, as well as, loss of personal property.
8. Student is financially responsible for any medical care required while in the clinical setting.
9. Student must provide current copy of course completion card for American Heart Association CPR BLS for Healthcare Provider or American Red Cross CPR for Professional Rescuer.
10. Student must successfully complete Health Insurance Portability & Accountability Act (HIPAA) training during the first semester of nursing classes.
11. Student must complete a criminal background check and drug screen. Drug screen must be repeated annually during the program. A health care agency may deny a student participation in direct patient care based on results of the criminal background check and/or drug screen.
12. Demonstration of professional behavior is expected at all clinical learning experiences. Faculty will direct a student to leave the learning environment if unacceptable behaviors are observed.
13. Clinical agencies may require personal health insurance as a condition for student placement.
14. Student must submit required clinical documents with each clinical rotation. A student who does not meet published deadlines for submission forfeits his/her enrollment.

15. If a student is dismissed by a clinical agency, alternate placement (if available) will require disclosure of information related to the dismissal. The student must consent to disclosure through completion of a Family Educational Rights & Privacy Act (FERPA) form.

Important Note: All prospective students are required to be eligible to participate in all clinical facilities where the nursing program is contracted to provide clinical instruction and supervision. Students who are not eligible for rehire in any facility may be excluded from clinical experiences, and thus may forfeit their seats in the nursing program. Students will be asked to disclose, upon admission, if they are current or former employees of any regional healthcare agencies.

Course Requirements

The student is required to complete the sequence of courses as outlined by the curriculum pathway.

- All courses, general education and nursing, must be completed in sequence prior to continuing in the program. Exceptions due to unusual circumstances must be approved by the program coordinator.
- A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the nursing program.
- The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.
- The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

Criminal Background Checks/Barrier Crimes

The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to https://www.dhp.virginia.gov/media/dhpweb/docs/nursing/guidance/90-55.pdf. Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses as identified below. Students are responsible for these costs as well as the cost of transportation to and from the college and health agencies used for clinical experiences.

Pre-Admission Testing (Test of Essential Academic Skills or TEAS)	$70.00
Uniforms/Shoes/Watch/Stethoscope	$400.00
Standardized Progressive Testing Program	$1,360.00
Textbooks/Electronic Resources Digital Devices	$1,200.00 $500-$1,000
CastleBranch© Criminal Background Check, Drug Screen, Document Manager	$133.00
Physical Exam, Immunizations, TB test	$250.00
AHA CPR BLS for Healthcare Providers Certification	$162.11

Track 2 in-state Tuition 56 credit hours @ $162.11 per credit hour	$9,078.16
NCLEX-RN Application Fees	$436.00
Transportation (to and from college and clinical agencies)	Variable

These costs are estimates and are subject to change without notification to faculty or students.

Core Performance Standards for Admission to and Progression through the Nursing Program

In addition to the nursing program's admission requirements, the nursing program sets forth eligibility requirements by citing the core performance standards. The standards set forth cognitive, sensory, affective and psychomotor performance requirements for every nursing student. Each core performance standard is accompanied by examples of activities nursing students and nurses are required to perform while executing nursing care. Students must be able to demonstrate satisfactory application of these core performance standards in classroom, clinical and laboratory settings, with or without reasonable accommodations, during the course of the nursing program.

Requirement	Performance Standard	Examples
Critical Thinking	Critical thinking ability sufficient for clinical judgment and delivery of safe client care	--Identify cause and effect relationships in clinical situations; --Evaluate effectiveness of nursing interventions; --Use the scientific method in the development of nursing interventions; --Prioritize nursing tasks and solve problems
Quantitative Literacy	Quantitative literacy sufficient for clinical judgment and delivery of safe client care	--Ability to take measurements; perform arithmetic and numerical operations (such as is necessary for calculating medication dosages and rates); --Read and record graphical displays of scientific and real-time physiologic data
Professional Relationships	Interpersonal and emotional skills sufficient for professional interactions with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds	--Establish rapport with clients and colleagues; --Ability to engage in conflict resolution, demonstrate peer accountability; --Adapt to changing environments/stressors; perform multiple responsibilities concurrently; establish therapeutic boundaries

Communication	Ability for professional interactions with others in verbal, non-verbal and written form	--Explain treatment procedures; --Initiate health teaching; --Document and interpret nursing actions and client responses; --Ability to interpret common non-verbal expressions indicating pain, discomfort, anxiety and other behavioral states
Mobility/Endurance	Physical abilities sufficient for movement from room to room and in small spaces; ability to execute movements required to provide care and treatment to clients in all health settings including functioning in emergency situations	--Move around in client rooms, work spaces and treatment areas; --Administer cardiopulmonary resuscitation; walk and/or stand for prolonged periods during a 12 hour shift --Perform lifting, as required, up to 50 pounds
Motor Skills	Gross and fine motor abilities sufficient for providing safe, effective nursing care	--Ability to bend, squat, kneel, climb stairs, push, pull, reach for extended periods and assist in lifting, transferring, ambulating and positioning clients of all age groups and weights; --Calibrate and use equipment such as IV pumps; --Manipulate small equipment and containers such as syringes, vials and medication packages
Hearing	Auditory ability sufficient for monitoring and assessing health needs	--Ability to hear alarms and other emergency signals, normal speaking level sounds, cries for help and auscultatory sounds on assessment
Visual	Visual ability sufficient for observation and assessment necessary in client care	--Ability to observe client's condition and responses to treatments; --Ability to discern colors and changes in color shading; --Ability to read handwritten and printed data such as orders, medication labels, calibrations on syringes; --Ability to read chart content and interpret data correctly by clearly viewing monitors

Tactile Sense	Tactile ability sufficient for physical assessment	--Ability to sufficiently perform physical assessments including palpation, pulses, changes in skin temperature and anatomical appearance

Student Accommodations Statement

The nursing program is committed to the policies set forth by the Virginia Community College System regarding disabilities and reasonable accommodations. Students may request academic accommodations for disabilities through the Office of Student Services. The Disabilities Coordinator will evaluate the request and make recommendations for appropriate and reasonable accommodations, which the student will provide to the instructor. Individuals requiring temporary parking accommodations due to short-term illness should also contact Student Services. All correspondence will be kept confidential.

The Disability Services web page can be found at https://www.mecc.edu/disabilityservices/. The Disability Services Counselor should be contacted for an appointment at least 2 weeks prior to the beginning of nursing classes if an accommodation is requested. Success is contingent upon the ability to fulfill the core performance standards of the program with or without reasonable accommodations.

Reapplication/Readmission/Program Progression Process

All courses in the curriculum, both general education and nursing, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of "C" (80) in all nursing courses, a minimum grade of "C" in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. A student may enroll only in the nursing courses listed in his/her current semester in the nursing program. Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course. In addition, a Comprehensive Drug Calculation Exam (CDCE) will be administered in NSG 115 to verify dosage calculation skills. Students must achieve at least 90 percent of maximum score on each CDCE with no more than three attempts in order to achieve passing grades in the course.

- Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program. Re-enrollment must occur no later than three years from successful completion of NSG 100 or 115, otherwise the student will have to repeat all nursing courses..
- A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 115.
- Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course as they are corequisites.
- A student who has 2 academic failures (grades below a "C") in nursing courses, other than first semester, will be ineligible for re-enrollment in the program.
- A student who wishes to reenter the nursing curriculum at any other level (e.g., NSG 152 , NSG 170 , NSG 210 , NSG 211 , NSG 230 , NSG 252 , NSG 270) must write a letter to the nursing program coordinator requesting readmission in the semester prior to the semester of enrollment. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional requested data, prior performance in the nursing program, and space availability. Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills, including dosage calculation, before progressing to the next level.
- According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the nursing program coordinator and the Vice President of Academic Affairs and Workforce Solutions.

A student must obtain permission from the nursing program coordinator to continue in the Nursing Program under the following conditions:

- Repeating a course with a grade below "C";
- Withdrawal from a nursing course;

- Cumulative GPA below 2.0.

Transfer of Nursing Credit

Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by MECC and the nursing program The student will be asked to provide course descriptions, documentation of completed direct patient care clinical hours, course syllabi, achievement or progressive testing scores, and selected data from the course instructor or program coordinator in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression and courses may need to be repeated. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experience providing direct patient care supervised by a qualified instructor. First semester nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program. If the first semester courses were taken three or more years prior to program admission then no nursing courses can be transferred.

Decisions on admission offers to transferring applicants will be determined by the nursing program coordinator following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills.

For Further Information, Contact:

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Program of Study

First Year Summer

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.

Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Fall

NUR 135 - Drug Dosage Calculations

2 Credits

Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates.
Prerequisite MDE 10; MTE/XDG1-5; SG - JM60; J161; or JALL
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

LBR 105 - Library Skills For Research

1 Credits

Introduces students to accessing, retrieving, evaluating, and applying a variety of digital and print information resources. Develops an understanding of the type of information provided in each of the information formats presented: reference, cataloged materials, magazines/journals, newspapers, and Internet sites. Provides background information, available resources, search techniques, sample searches, evaluation guides, and exams in each of the course units.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Summer

NSG 115 - Health Care Concepts for Transition

5 Credits

Focuses on role transition from Licensed Practical Nurse to Registered professional nurse. Incorporates concepts of nursing practice and conceptual learning to promote health and wellness across the lifespan. Uses the nursing process to explore care delivery for selected diverse populations with common and predictable illness. Emphasizes the use of clinical judgement in skill acquisition.
Prerequisite BIO 141, BIO 142, ENG 111, PSY 230, SDV 100; Acceptance to the Transition Program
Corequisite NSG 200 and BIO 150
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Summer

NSG 200 - Health Promotion & Assessment

3 Credits

Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

Second Year Fall

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

NSG 210 - Health Care Concepts I

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

NSG 211 - Health Care Concepts II

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

Second Year Spring

NSG 230 - Advanced Professional Nursing Concepts

2 Credits

Develops the role of the professional nurse in the healthcare environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings.
Prerequisite NSG 210 and NSG 211
Lecture Hours 2
Note Typically Offered: Fall/Spring

NSG 252 - Complex Health Care Concepts

2 Credits

Focuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration.
Prerequisite NSG 210 and NSG 211
Lecture Hours 4
Note Typically Offered: Fall/Spring

NSG 270 - Nursing Capstone

4 Credits

Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite NSG 210 and NSG 211
Lab hours 12
Note Typically Offered: Fall/Spring

- Humanities Elective **3 Credits**

Graduates are eligible to sit for the NCLEX-RN Examination to earn subsequent licensure if successful.

Total Program Credits: 56

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

**Upon completion of NSG 115 credit will be awarded for NSG 100, NSG 106, NSG 130, NSG 152, NSG 170 (16 credits). These credits will appear on the student's official transcript.*

Nursing - Track 3: Part-Time Evening/Weekend, AAS

Purpose

The mission of the Associate of Applied Science Degree (AAS) Nursing curriculum is to provide affordable, community access to quality nursing education. The nursing program prepares qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. Upon successful completion of the program, qualified graduates have the opportunity to apply to take the National Council Licensure Examination (NCLEX-RN) leading to licensure as a registered nurse.

Program Learning Outcomes

Upon successful completion of the curriculum, students are expected to be able to incorporate competencies that accomplish the following outcomes:

1. Client-Centered Care - Provide client-centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
2. Safety - Practice safe nursing care that minimizes risk of harm across systems and client populations.
3. Clinical Judgment - Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence- based practice in the provision of safe, quality care
4. Professional Behaviors - Practice professional behaviors that encompass the legal/ethical framework while incorporating self-reflection, leadership and a commitment to recognize the value of life-long learning.
5. Quality Improvement - Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcomes
6. Collaboration - Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

Program Description

The Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the healthcare team, rendering direct patient care as beginning practitioners of nursing in a variety of healthcare settings. The Track 3 Part-time Evening Weekend is specifically designed for working adults or other adults who are interested in becoming RNs but have other responsibilities that interfere with their abilities to attend the rigorous scheduling of Track 1. General education courses can be completed as night classes or by distance education options such as web-based learning. Nursing classes and clinicals are taught on evenings and weekends. The program is designed at a slower pace to be completed in 4 years.

Employment Opportunities

The occupational objective of nursing graduates is to secure and sustain employment as a registered nurse providing nursing care to individuals, families, communities, and/or populations in a variety of healthcare settings.

Program Requirements

Admission to the MECC Nursing Program is a selective and competitive process. The program is open to applicants who are free of any physical or mental condition that might adversely affect performance as a member of the nursing profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

- Transcript showing graduation from a state recognized high school, home school program and be at least 18 years of age, or General Educational Development (GED) program transcript.
- College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0
- Demonstrated competency in science as evidenced by completion of high school biology (with laboratory) or high school chemistry (with laboratory) or the college equivalents or completion of BIO 141 and BIO 142 with no grade below a "C" prior to application deadline.
- Demonstrated competency in mathematics as evidenced by placement out of MTE 1-5 on the Virginia Placement Test (VPT) or completion of MDE 10 or a college-level math course (MTH 154 or higher). For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Demonstrated competency in English as evidenced by placement into or completion of ENG 111. For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Completion of Nursing Application for each academic year interested in being considered for the nursing program.
- Completion of the Test of Essential Academic Skills (TEAS) with a National Percentile Rank score of 45 or above within the past 5 years.
- Applicants to Nursing Track 3: Part-time Evening Weekend (PTEW) curriculum must complete 22 credits of general education courses prior to admission to the program: BIO 141, BIO 142, BIO 150, ENG 111, PSY 230, LBR 105, NUR 135, and SDV 100.
- A 2.5 curricular grade point average (GPA) for the following six general education courses: BIO 141, ENG 111, SDV 100, PSY 230, LBR 105 and NUR 135 is required for the nursing program. These courses must be completed prior to enrollment in any nursing (NSG) courses
- Students must not have been enrolled in the first semester of the nursing program (NSG) courses more than one time. After two attempts in first semester NSG courses, students are ineligible for admission consideration unless permission is obtained from the nursing coordinator.
- Any student who does not have evidence on file in Enrollment Services by the February 15th deadline indicating that these requirements will be met by the end of the Summer semester will not be considered for the Track 3: Part-time Evening Weekend curriculum. All admission requirements (including English, science and math competencies) must be met.

NOTE: Applicants who meet the requirements listed above will be ranked for admission using their ATI TEAS National Percentile Rank.

Applications are accepted.from the start of the academic year. The application deadline is February 15th of each year. All documents must be submitted by that deadline. Late applicants may apply for consideration should there be space available. The nursing program application is available online and further details of the nursing program applicaiton process may be found at http://www.mecc.edu/forms/.

The number of qualified applicants offered admission to the nursing program is contingent upon space available in the classrooms and nursing laboratories, the program's access to sufficient clinical placements in the region's healthcare settings in order to meet the program's learning outcomes, and the number of qualified nursing faculty to teach students in classrooms, laboratories, and clinical settings. If the number of applicants exceeds the number of available qualified faculty and the amount of enrollment space available in the program, some applicants may not be accepted even if the minimum requirements for admission are met.

Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the MECC College Admissions Application and the Nursing Program Application.

Although applications are welcomed from residents of other jurisdictions, first priority will be given to all qualified applicants who are domiciled residents of Lee, Wise, Scott, and Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a given program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the college and that they meet the minimum admission requirements. A domiciled resident is one who has been a permanent resident in the locality or state for the twelve months before the program application deadline. In addition, residents of localities with which the college has clinical-site affiliation may receive equal consideration for admission. Please contact Enrollment Services immediately upon applying to the program with any questions regarding jurisdiction.

The nursing program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors, as well as students, clinical agencies require that each student have proof of completion of the following:

1. Required Student Forms
2. Annual Student Statement of Health form
3. Student Information, Physical and Immunization forms (must be completed by a healthcare practitioner, MD, PA or NP-C).
    1. Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, and COVID
    2. Proof of negative two-step TB Skin Test (TST) or proof of negative approved TB screening blood test.If a person has a previously documented positive TB screening test or a documented diagnosis of TB or Latent TB Infection (LTBI) in the past, an annual risk assessment/symptom check must be performed by your healthcare provider. Chest x-ray is only required if symptoms develop.
    3. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and Medical Document Package
5. Clearance of criminal background check and drug testing
6. Student must provide a current copy of CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" or American Red Cross Professional Rescuer CPR course completed prior to August 15 for Track 3 students. Certification must be maintained throughout enrollment in the nursing program.
7. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and should be obtained when instructed to do so.
8. Personal health insurance
9. Other mandatory clinical facility requirements including professional responsibilities and patient confidentiality statements.

Students should not attempt to complete any of these requirements until they have been admitted to the nursing program and have completed the mandatory orientation modules. The cost of these requirements is the responsibility of the student. The requirements must be completed by August 1 for Track 3 students.

Additional Information

NCLEX-RN Licensure Examination Pass Rates, Program Completion, and Employment Data

Year of Graduation	Program Completion Rate	Program NCLEX-RN Pass Rate*	National NCLEX-RN Pass Rate All US Graduates*
2021 (N=57)**	88%	73.68%	78.78%
2022 (N= 50)	47.6%***	78.18%	77.91%
2023 (N= 43)	76.7%	97.67%	88.56%

*NCLEX National Statistics from www.NCSBN.org
**2021 were the first graduates of the MECC Nursing Program. Previously the nursing program at MECC was part of the consortium program Virginia Appalachia Tricollege Nursing Program.

***Prior to 2022 completion rates calculated by student completing in 150% of the length of the program. ACEN changed the formula to graduating on time. This calculation reflects that formula change.

Statement for Nursing Program (ADN):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The Mountain Empire Community College ADN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia. In addition, the ADN nursing program at Mountain Empire Community College located in Big Stone Gap, Virginia is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326

(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the ADN nursing program is Continued Accreditation with Conditions.

View the public information disclosed by the ACEN regarding this program at http://www.acenursing.us/accreditedprograms/programSearch.htm.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 8, 2023.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
RN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, RI, OH, OK, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI, WY	NV and OR	US Virgin Islands Guam Alaska California Connecticut District of Columbia Hawaii Illinois Massachusetts Michigan

			Minnesota New York Pennsylvania

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*

Clinical Contracts

Individual contracts are in effect with each affiliate clinical agency and these contracts differ in requirements for students. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. In general, contracts include the following:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed.
3. Students must wear the proper uniform, adhering to program and healthcare agency standards.
4. Students must attend and complete the healthcare agency's orientation program prior to participating in clinical activities.
5. Clinical agencies require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
6. Students must meet health, immunity, and immunization requirements.
7. Student releases clinical agencies, its agents and employees from any liability for any injury or death to self or damage to personal property arising out of the clinical agreement or use of the clinical agency's facilities. Students must sign an Assumption of Risk document that serves to provide a general outline of hazards encountered within nursing. This list includes exposure to infectious, biological, chemical, environmental/mechanical, and psychosocial hazards, as well as, loss of personal property.
8. Student is financially responsible for any medical care required while in the clinical setting.
9. Student must provide current copy of course completion card for American Heart Association CPR BLS for Healthcare Provider ro American Red Cross CPR for Professional Rescuer.
10. Student must successfully complete Health Insurance Portability & Accountability Act (HIPAA) training during first semester of nursing classes.
11. Student must complete a criminal background check and drug screen. Drug screen must be repeated during the program. A health care agency may deny a student participation in direct patient care based on results of the criminal background check and/or drug screen.
12. Demonstration of professional behavior is expected at all clinical learning experiences. Faculty will direct a student to leave the learning environment if unacceptable behaviors are observed.
13. Clinical agencies may require personal health insurance as a condition for student placement.
14. Student must submit required clinical documents with each clinical rotation. A student who does not meet published deadlines for submission forfeits his/her enrollment.
15. If a student is dismissed by a clinical agency, alternate placement (if available) will require disclosure of information related to the dismissal. The student must consent to disclosure through completion of a Family Educational Rights & Privacy Act (FERPA) form.

Important Note: All prospective students are required to be eligible to participate in all clinical facilities where the nursing program is contracted to provide clinical instruction and supervision. Students who are not eligible for rehire in any facility may be excluded from clinical experiences, and thus may forfeit their seats in the nursing program. Students will be asked to disclose, upon admission, if they are current or former employees of any regional healthcare agencies.

Course Requirements

The student is required to complete the sequence of courses as outlined by the curriculum pathway.

- All courses, general education and nursing, must be completed in sequence prior to continuing in the program. Exceptions due to unusual circumstances must be approved by the program coordinator.
- A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the nursing program.
- The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.
- The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

Criminal Background Checks/Barrier Crimes

The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to https://www.dhp.virginia.gov/Boards/Nursing/PractitionerResources/GuidanceDocuments/90-55.pdf. Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses as identified below. Students are responsible for these costs as well as the cost of transportation to and from the college and health agencies used for clinical experiences.

Pre-Admission Testing (Test of Essential Academic Skills or TEAS)	$70.00
Uniforms/Shoes/Watch/Stethoscope/Lab Supply Kit	$400.00
Standardized Progressive Testing Program	$1,360.00
Textbooks/Electronic Resources Devices	$1,200.00 $500-$1,000
CastleBranch© Criminal Background Check, Drug Screen, Document Manager	$133.00
Physical Exam, Immunizations, TB test	$250.00
CPR Certification	$162.11
Track 3 estimated In-state Tuition 67 credit hours @ $162.11 per credit hour	$10,861.37
NCLEX-RN Application Fees	$436.00
Transportation (to and from college and clinical agencies)	Variable

These costs are estimates and are subject to change without notification to faculty or students.

Core Performance Standards for Admission to and Progression through the Nursing Program

In addition to the nursing program's admission requirements, the nursing program sets forth eligibility requirements by citing the core performance standards. The standards set forth cognitive, sensory, affective and psychomotor performance requirements for every nursing student. Each core performance standard is accompanied by examples of

activities nursing students and nurses are required to perform while executing nursing care. Students must be able to demonstrate satisfactory application of these core performance standards in classroom, clinical and laboratory settings, with or without reasonable accommodations, during the course of the nursing program.

Requirement	Performance Standard	Examples
Critical Thinking	Critical thinking ability sufficient for clinical judgment and delivery of safe client care	--Identify cause and effect relationships in clinical situations; --Evaluate effectiveness of nursing interventions; --Use the scientific method in the development of nursing interventions; --Prioritize nursing tasks and solve problems
Quantitative Literacy	Quantitative literacy sufficient for clinical judgment and delivery of safe client care	--Ability to take measurements; perform arithmetic and numerical operations (such as is necessary for calculating medication dosages and rates); --Read and record graphical displays of scientific and real-time physiologic data
Professional Relationships	Interpersonal and emotional skills sufficient for professional interactions with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds	--Establish rapport with clients and colleagues; --Ability to engage in conflict resolution, demonstrate peer accountability; --Adapt to changing environments/stressors; --Perform multiple responsibilities concurrently; --Establish therapeutic boundaries
Communication	Ability for professional interactions with others in verbal, non-verbal and written form	--Explain treatment procedures; initiate health teaching; --Document and interpret nursing actions and client responses; --Ability to interpret common non-verbal expressions indicating pain, discomfort, anxiety and other behavioral states
Mobility/Endurance	Physical abilities sufficient for movement from room to room and in small spaces; ability to execute movements required to provide care and treatment to clients in all health settings including functioning in emergency situations	--Move around in client rooms, work spaces and treatment areas; --Administer cardiopulmonary resuscitation; --Walk and/or stand for prolonged periods during a 12 hour shift

		--Perform lifting, as required, up to 50 pounds
Motor Skills	Gross and fine motor abilities sufficient for providing safe, effective nursing care	--Ability to bend, squat, kneel, climb stairs, push, pull, reach for extended periods and assist in lifting, transferring, ambulating and positioning clients of all age groups and weights; --Calibrate and use equipment such as IV pumps; --Manipulate small equipment and containers such as syringes, vials and medication packages
Hearing	Auditory ability sufficient for monitoring and assessing health needs	--Ability to hear alarms and other emergency signals, normal speaking level sounds, cries for help and auscultatory sounds on assessment
Visual	Visual ability sufficient for observation and assessment necessary in client care	--Ability to observe client's condition and responses to treatments; --Ability to discern colors and changes in color shading; --Ability to read handwritten and printed data such as orders, medication labels, calibrations on syringes; --Ability to read chart content and interpret data correctly by clearly viewing monitors
Tactile Sense	Tactile ability sufficient for physical assessment	--Ability to sufficiently perform physical assessments including palpation, pulses, changes in skin temperature and anatomical appearance

Student Accommodations Statement

The nursing program is committed to the policies set forth by the Virginia Community College System regarding disabilities and reasonable accommodations. Students may request academic accommodations for disabilities through the Office of Student Services. The Disabilities Coordinator will evaluate the request and make recommendations for appropriate and reasonable accommodations, which the student will provide to the instructor. Individuals requiring temporary handicapped parking accommodations due to short-term illness should also contact Student Services. All correspondence will be kept confidential.

The Disability Services web page can be found at https://www.mecc.edu/disabilityservices/. Contact the Disability Services Counselor for an appointment at least 2 weeks prior to the beginning of nursing classes if accommodations are requested. Success is contingent upon the ability to fulfill the core performance standards of the program with or without reasonable accommodations.

Reapplication/Readmission/Program Progression Process

All courses in the curriculum, both general education and nursing, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of "C" (80) in all nursing courses, a minimum grade of "C" in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment

in the nursing program. A student may enroll only in the nursing courses listed in his/her current semester in the nursing program. Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course. In addition, a Comprehensive Drug Calculation Exam (CDCE) will be administered during NSG 106 to verify dosage calculation skills. Students must achieve at least 90 percent of maximum score on each CDCE with no more than three attempts in order to achieve passing grades in each course.

- Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program. Re-enrollment must occur no later than three years from successful completion of NSG 100 or NSG 115, otherwise the student will have to repeat all nursing courses.
- A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 106.
- Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course as they are corequisites.
- A student who has 2 academic failures (grades below a "C") in nursing courses will be ineligible for reenrollment in the program unless the student obtains licensure as a practical nurse.
- A student who wishes to reenter the nursing curriculum at any other level (e.g., NSG 152, NSG 170, NSG 210, NSG 211, NSG 230, NSG 252, NSG 270) must write a letter to the nursing program coordinator requesting readmission in the semester prior to the semester of enrollment. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional requested data, prior performance in the nursing program, and space availability. Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills, including dosage calculation, before progressing to the next level.
- According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the nursing program director and the Vice President of Academic Affairs and Workforce Solutions.

A student must obtain permission from the nursing program coordinator to continue in the Nursing Program under the following conditions:

- Repeating a course with a grade below "C";
- Withdrawal from a nursing course;
- Cumulative GPA below 2.0.

Transfer of Nursing Credit

Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by the MECC and the nursing program. The student will be asked to provide course descriptions, documentation of completed direct patient care clinical hours, course syllabi, achievement or progressive test ing scores, and selected data from the course instructor or program coordinator in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression and courses may need to be repeated. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experience providing direct patient care supervised by a qualified instructor. First semester nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program. If the first semester nursing courses were taken three or more years prior to admission then no nursing courses can be transferred.

Decisions on admission offers to transferring applicants will be determined by the nursing program coordinator following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills.

For Further Information, Contact:

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Program of Study

First Year Fall

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

NUR 135 - Drug Dosage Calculations

2 Credits

Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates.
Prerequisite MDE 10; MTE/XDG1-5; SG - JM60; J161; or JALL
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

LBR 105 - Library Skills For Research

1 Credits

Introduces students to accessing, retrieving, evaluating, and applying a variety of digital and print information resources. Develops an understanding of the type of information provided in each of the information formats presented: reference, cataloged materials, magazines/journals, newspapers, and Internet sites. Provides background information, available resources, search techniques, sample searches, evaluation guides, and exams in each of the course units.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

First Year Summer

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Fall

NSG 106 - Competencies for Nursing Practitioners

2 Credits

Focuses on the application of concepts through clinical skill development. Emphasizes the use of clinical judgment in skill acquisition. Includes principles of safety, evidence-based practice, informatics and math computational skills. Prepares students to demonstrate competency in specific skills and drug dosage calculation including the integration of skills in the care of clients in simulated settings. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite MTE 1-5 and BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 0
Lab hours 6
Note Typically Offered: Fall

NSG 130 - Professional Nursing Concepts

1 Credits

Introduces the role of the professional nurse and fundamental concepts in professional development. Focuses on professional identity, legal/ethical issues and contemporary trends in professional nursing.
Prerequisite BIO 141 or BIO 231 or NAS 161
Lecture Hours 1
Note Typically Offered: Fall/Spring

NSG 200 - Health Promotion & Assessment

3 Credits

Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

Second Year Spring

NSG 100 - Introduction to Nursing Concepts

4 Credits

Introduces concepts of nursing practice and conceptual learning. Focuses on basic nursing concepts with an emphasis on safe nursing practice and the development of the nursing process. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 or BIO 231 and Admission to Nursing
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

NSG 152 - Health Care Participant

3 Credits

Focuses on the health and wellness of diverse individuals, families, and the community throughout the lifespan. Covers concepts that focus on client attributes and preferences regarding healthcare. Emphasizes population-focused care. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or cooperating agencies, and/or simulated environments.
Prerequisite BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Option: After Successful Completion Of NSG 100 (Which Includes 45 Direct Patient Care Hours), Students Are Eligible To Challenge The Certified Nurse Aide Exam

Third Year Fall

NSG 170 - Health/Illness Concepts

6 Credits

Focuses on the nursing care of individuals and/or families throughout the lifespan with an emphasis on health and illness concepts. Includes concepts of nursing care for the antepartum client and clients with common and predictable illnesses. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 142 (or BIO 232 or NAS 162), NSG 100, NSG 106, NSG 130 and NSG 200
Lecture Hours 4
Lab hours 6
Note Typically Offered: Fall/Spring

Third Year Spring

NSG 210 - Health Care Concepts I

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

Third Year Summer

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

Fourth Year Fall

NSG 211 - Health Care Concepts II

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

NSG 230 - Advanced Professional Nursing Concepts

2 Credits

Develops the role of the professional nurse in the healthcare environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings.
Prerequisite NSG 210 and NSG 211
Lecture Hours 2
Note Typically Offered: Fall/Spring

Fourth Year Spring

NSG 252 - Complex Health Care Concepts

2 Credits

Focuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration.
Prerequisite NSG 210 and NSG 211
Lecture Hours 4
Note Typically Offered: Fall/Spring

NSG 270 - Nursing Capstone

4 Credits

Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite NSG 210 and NSG 211
Lab hours 12
Note Typically Offered: Fall/Spring

Graduates are eligible to sit for the NCLEX-RN Examination and subsequent licensure

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Nursing - Track 4: Part-Time Evening/Weekend Advanced Placement Option LPN Transition, AAS

Purpose

The mission of the Associate of Applied Science Degree (AAS) in Nursing curriculum is to provide affordable, community access to quality nursing education. The nursing program prepares qualified students to provide safe, competent, entry-level nursing care in 21st century healthcare environments. Students are prepared to meet the ever-increasing complexity of the healthcare needs of the citizens of Virginia. Upon successful completion of the program, qualified graduates have the opportunity to apply to take the National Council Licensure Examination (NCLEX-RN) leading to licensure as a registered nurse.

Program Learning Outcomes

Upon successful completion of the curriculum, students are expected to be able to incorporate competencies that accomplish the following outcomes:

1. Client-Centered Care - Provide client-centered care promoting therapeutic relationships, caring behaviors, and self-determination across the lifespan for diverse populations.
2. Safety - Practice safe nursing care that minimizes risk of harm across systems and client populations.
3. Clinical Judgment - Demonstrate nursing judgment through the use of clinical reasoning, the nursing process, and evidence-based practice in the provision of safe, quality care
4. Professional Behaviors - Practice professional behaviors that encompass the legal/ethical framework while incorporating self-reflection, leadership and a commitment to recognize the value of life-long learning.
5. Quality Improvement - Manage client care through quality improvement processes, information technology, and fiscal responsibility to meet client needs and support organizational outcomes
6. Collaboration - Demonstrate principles of collaborative practice within the nursing and interdisciplinary teams fostering mutual respect and shared decision-making to achieve stated outcomes of care.

Program Description

The MECC Track 4 Part-time Evening Weekend Advanced Placement Option for LPN Transition curriculum is designed to grant advanced placement to LPNs who have been admitted to the nursing program and meet pre-requisite requirements. If there is sufficient enrollment in the nursing program, students who meet the eligibility requirements for the advanced placement will take a transition course in the fall term and then be eligible to take the sophomore level courses and graduate within two (2) academic years with an AAS Degree in Nursing. The length of this track depends on the amount of time needed to complete the general education classes. The nursing classes can be completed in two years. This option is available for LPNs who work and/or wish to attend part-time. General education courses can be completed as night classes or by distance education options such as web-based learning. Nursing classes and clinicals are taught on evenings and weekends.

Employment Opportunities

The occupational objective of Nursing graduates is to secure and sustain employment as a registered nurse providing nursing care to individuals, families, communities, and/or populations in a variety of health care settings.

Program Requirements

Admission to the nursing program is a selective and competitive process. The program is open to applicants who are free of any physical or mental condition that might adversely affect performance as a member of the nursing profession. In addition to the requirements for admission to the college, the applicant must meet the following requirements:

- Transcript showing graduation from state a recognized high school, home school program and at least 18 years of age , or General Educational Development (GED) program.
- College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0
- Demonstrated competency in science as evidenced by completion of high school biology (with laboratory) or high school chemistry (with laboratory) or the college equivalents or completion of BIO 141 and BIO 142 with no grade below a "C" prior to application deadline.
- Demonstrated competency in mathematics as evidenced by placement out of MTE 1-5 on the Virginia Placement Test (VPT) or completion of MDE 10 or a college-level math course (MTH 154 or higher). For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Demonstrated competency in English as evidenced by placement into or completion of ENG 111. For those who do not meet this requirement, all prescribed developmental work must be completed prior to application deadline.
- Completion of Nursing Application for each academic year interested in being considered for the nursing program.
- Completion of the Test of Essential Academic Skills (TEAS) with a National Percentile Rank score of 45 or above within the past 5 years.
- Be a currently licensed practical nurse (copy of current LPN license must be provided).
- Must have graduated as an LPN after May 15, 2020 or have at least one year (2000 hours) of full-time LPN work experience in direct patient care during the past three years. (Written documentation must be provided from employer).
- Applicants to Nursing Track 4: Part-time Evening Weekend (PTEW) Advanced Placement Option for LPN Transition Curriculum must complete 22 credits of general education courses: BIO 141, BIO 142, BIO 150, ENG 111, PSY 230, LBR 105, NUR 135, and SDV 100.
- Any student who does not have evidence on file in Enrollment Services by the February 15th application deadline indicating that these requirements will be met by the end of the Summer semester will not be considered for the Track 4: Part-time Evening Weekend Advanced Placement Option for LPN Transition.
- A 2.5 curricular grade point average (GPA) for the following six general education courses: BIO 141, ENG 111, SDV 100, PSY 230, LBR 105, and NUR 135 is required for the nursing program. **These courses must be completed prior to enrollment in any nursing (NSG) course.** Students must not have been enrolled in the first semester of the nursing program (NSG) courses more than one time. After two attempts in NSG courses, students are ineligible for admission consideration unless permission is obtained from the nursing program coordinator.
- Students must not have been enrolled in the first semester of the nursing program (NSG) courses more than one time. After two attempts in first semester NSG courses, students are ineligible for admission consideration unless permission is obtained from the nursing coordinator.

NOTE: Applicants who meet the requirements listed above will be ranked for admission using their ATI TEAS National Percentile Rank.

Applications for the nursing program are accepted from the start of the academic year. The application deadline is February 15th of each year. The nursing program application is now available online and further details of the application process may be found at http://www.mecc.edu/forms/. Late applicants may apply for consideration should there be space available.

The number of qualified applicants offered admission to the nursing program is contingent upon space available in the classrooms and nursing laboratories, the program's access to sufficient clinical placements in the region's healthcare settings in order to meet the program's learning outcomes, and the number of qualified nursing faculty to teach students in classrooms, laboratories, and clinical settings. If the number of applicants exceeds the number of available qualified faculty and the amount of enrollment space available in the program, some applicants may not be accepted even if the minimum requirements for admission are met.

Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the Admissions Application and the Nursing Application.

Although applications are welcomed from residents of other jurisdictions, first priority will be given to all qualified applicants who are domiciled residents of Lee, Wise, Scott, and Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a nursing program at their local community college, provided such students apply for admission to the program prior to registration or by a deadline established by the college and that they meet the minimum admission requirements. A domiciled resident is one who has been a permanent resident in the locality or state for the twelve months before the program application deadline. In addition, residents of localities with which the college has clinical-site affiliation may receive equal consideration for admission. Please contact Enrollment Services immediately upon applying to the program with any questions regarding jurisdiction.

The nursing program is dependent on use of local clinical agencies to meet the experiential or clinical learning needs of its students. In order to protect patients and visitors, as well as students, clinical agencies require that each student have proof of completion of the following:

1. Required Student Forms
2. Annual Student Statement of Health form
3. Student Information, Physical and Immunization forms (must be completed by a healthcare practitioner, MD, PA or NP-C).
    1. Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, Hepatitis B, and COVID
    2. Proof of negative two-step TB Skin Test (TST) or proof of negative approved TB screening blood test. If a person has a previously documented positive TB screening test or a documented diagnosis of TB or Latent TB Infection (LTBI) in the past, perform an annual risk assessment/symptom check must be performed by your healthcare provider. Chest x-ray is only required if symptoms develop.
    3. Documentation of ability to perform physical demands required in direct patient care activities.
4. Purchase a background check, drug screen, and document package
5. Clearance of criminal background check and drug testing
6. Provide proof of current CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" or American Red Cross Professional Rescuer CPR course completed prior to August 15 for Track 4 students.
7. Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and should be obtained when instructed to do so.
8. Personal health insurance
9. Other mandatory clinical facility requirements including professional responsibilities and patient confidentiality statements.

Students should not attempt to complete any of these requirements until they have been admitted to the nursing program and completed the mandatory orientation modules.

The cost of these requirements is the responsibility of the student. The requirements must be completed by August 15 for Track 4 students.

Additional Information

NCLEX-RN Licensure Examination Pass Rates, Program Completion, and Employment Data

Year of Graduation	Program Completion Rate	Program NCLEX-RN Pass Rate*	National NCLEX-RN Pass Rate All US Graduates*
2021 (N=57)**	88%	73.68%	78.78%
2022 (N= 50)	47.6%***	78.18%	77.91%
2023 (N= 43)**	76.7%***	97.67%	88.56%

*NCLEX National Statistics from www.NCSBN.org
**2021 were the first graduates of the MECC Nursing Program. Previously the nursing program at MECC was part of the consortium program Virginia Appalachia Tricollege Nursing Program.

***Prior to 2022 completion rates calculated by student completing 150% of length of program. ACEN changed the formula to graduating on time. This calculation reflects that formula change.

Statement for Nursing program (ADN):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associate Degree in Nursing (ADN) program provides the following information for all prospective and current students:

The Mountain Empire Community College ADN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia. In addition, the ADN nursing program at Mountain Empire Community College located in Big Stone Gap, Virginia is accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326

(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the ADN nursing program is Continued Accreditation with Conditions.

View the public information disclosed by the ACEN regarding this program at http://www.acenursing.us/accreditedprograms/programSearch.htm.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of February 8, 2023.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
RN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, RI, OH, OK, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI, WY	NV and OR	US Virgin Islands Guam Alaska California Connecticut District of Columbia Hawaii Illinois Massachusetts Michigan Minnesota New York Pennsylvania

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*

Clinical Contracts

Individual contracts are in effect with each affiliate clinical agency and these contracts differ in requirements for students. If students cannot comply with these contractual requirements, they will not be able to participate in clinical activities and will be asked to withdraw from the program. In general, contracts include the following:

1. Clinical agencies reserve the right to dismiss a student from their agency at any time with due cause. This will be done with advance notice except in an emergency.
2. Published policies of the clinical agency must be followed.
3. Students must wear the proper uniform, adhering to program and healthcare agency standards.
4. Students must attend and complete the healthcare agency's orientation program prior to participating in clinical activities.
5. Clinical agencies require that all students have documentation of ability to perform the physical demands required in direct patient care activities.
6. Students must meet health, immunity, and immunization requirements.
7. Student releases clinical agencies, its agents and employees from any liability for any injury or death to self or damage to personal property arising out of the clinical agreement or use of the clinical agency's facilities. Students must sign an Assumption of Risk document that serves to provide a general outline of hazards encountered within nursing. This list includes exposure to infectious, biological, chemical, environmental/mechanical, and psychosocial hazards, as well as, loss of personal property.
8. Student is financially responsible for any medical care required while in the clinical setting.
9. Student must provide current copy of course completion card for American Heart Association CPR BLS for Healthcare Provider or American Red Cross CPR for Professional Rescuer.
10. Student must successfully complete Health Insurance Portability & Accountability Act (HIPAA) training during the first semester of nursing classes.
11. Student must complete a criminal background check and drug screen. Drug screen must be repeated annually during the program. A health care agency may deny a student participation in direct patient care based on results of the criminal background check and drug screen.

12. Demonstration of professional behavior is expected at all clinical learning experiences. Faculty will direct a student to leave the learning environment if unacceptable behaviors are observed.
13. Clinical agencies may require personal health insurance as a condition for student placement.
14. Student must submit required clinical documents with each clinical rotation. A student who does not meet published deadlines for submission forfeits his/her enrollment.
15. If a student is dismissed by a clinical agency, alternate placement (if available) will require disclosure of information related to the dismissal. The student must consent to disclosure through completion of a Family Educational Rights & Privacy Act (FERPA) form.

Important Note: All prospective students are required to be eligible to participate in all clinical facilities where the nursing program is contracted to provide clinical instruction and supervision. Students who are not eligible for rehire in any facility may be excluded from clinical experiences, and thus may forfeit their seats in the nursing program. Students will be asked to disclose, upon admission, if they are current or former employees of any regional healthcare agencies.

Course Requirements

The student is required to complete the sequence of courses as outlined by the curriculum pathway.

- All courses, general education and nursing, must be completed in sequence prior to continuing in the program. Exceptions due to unusual circumstances must be approved by the program coordinator.
- A student must have a "C" or above in theory plus "satisfactory" in clinical performance in all nursing courses to remain in the program. A grade of "C" or above in any related requirements is a prerequisite for continuing in the nursing program.
- The student is required to complete a sequence of courses and learning experiences provided at the college and selected community agencies such as hospitals, nursing homes, clinics, physicians' offices and comparable facilities. The nursing faculty will observe and evaluate the student's suitability for nursing and direct patient care.
- The nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

Criminal Background Checks/Barrier Crimes

The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.1-3007 of the Code of Virginia. Most healthcare organizations are prohibited from hiring persons who have been convicted of certain criminal acts (For a list of crimes under this category refer to https://www.dhp.virginia.gov/media/dhpweb/docs/nursing/guidance/90-55.pdf. Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires pre-admission testing and other expenses as identified below. Students are responsible for these costs as well as the cost of transportation to and from the college and health agencies used for clinical experiences.

Pre-Admission Testing (Test of Essential Academic Skills or TEAS)	$70.00
Uniforms/Shoes/Watch/Stethoscope/Lab Supply Kit	$400.00
Standardized Progressive Testing Program	$1,360.00
Textbooks/Electronic Resources Devices	$1,200.00 $500-$1,000
CastleBranch© Criminal Background Check, Drug Screen, Document Manager	$133.00

Physical Exam, Immunizations, TB test	$250.00
CPR Certification (AHA CPR BLS for Healthcare Providers)	$162.11
Estimated In-state Tuition 56 credit hours @ $162.11 per credit hour	$9,078.16
NCLEX-RN Application Fees	$436.00
Transportation (to and from college and clinical agencies)	Variable

These costs are estimates and are subject to change without notification to faculty or students.

Core Performance Standards for Admission to and Progression through the Nursing Program

In addition to the nursing program's admission requirements, the nursing program sets forth eligibility requirements by citing the core performance standards. The standards set forth cognitive, sensory, affective and psychomotor performance requirements for every nursing student. Each core performance standard is accompanied by examples of activities nursing students and nurses are required to perform while executing nursing care. Students must be able to demonstrate satisfactory application of these core performance standards in classroom, clinical and laboratory settings, with or without reasonable accommodations, during the course of the nursing program.

Requirement	Performance Standard	Examples
Critical Thinking	Critical thinking ability sufficient for clinical judgment and delivery of safe client care	--Identify cause and effect relationships in clinical situations; --Evaluate effectiveness of nursing interventions; --Use the scientific method in the development of nursing interventions; --Prioritize nursing tasks and solve problems
Quantitative Literacy	Quantitative literacy sufficient for clinical judgment and delivery of safe client care	--Ability to take measurements; --Perform arithmetic and numerical operations (such as is necessary for calculating medication dosages and rates); --Read and record graphical displays of scientific and real-time physiologic data
Professional Relationships	Interpersonal and emotional skills sufficient for professional interactions with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds	--Establish rapport with clients and colleagues; --Ability to engage in conflict resolution, demonstrate peer accountability; --Adapt to changing environments/stressors; --Perform multiple responsibilities concurrently; --Establish therapeutic boundaries

Communication	Ability for professional interactions with others in verbal, non-verbal and written form	--Explain treatment procedures; --Initiate health teaching; --Document and interpret nursing actions and client responses; --Ability to interpret common non-verbal expressions indicating pain, discomfort, anxiety and other behavioral states
Mobility/Endurance	Physical abilities sufficient for movement from room to room and in small spaces; ability to execute movements required to provide care and treatment to clients in all health settings including functioning in emergency situations	--Move around in client rooms, work spaces and treatment areas; --Administer cardiopulmonary resuscitation; --Walk and/or stand for prolonged periods during a 12 hour shift --Perform lifting, as required, up to 50 pounds
Motor Skills	Gross and fine motor abilities sufficient for providing safe, effective nursing care	--Ability to bend, squat, kneel, climb stairs, push, pull, reach for extended periods and assist in lifting, transferring, ambulating and positioning clients of all age groups and weights; --Calibrate and use equipment such as IV pumps; --Manipulate small equipment and containers such as syringes, vials and medication packages
Hearing	Auditory ability sufficient for monitoring and assessing health needs	--Ability to hear alarms and other emergency signals, normal speaking level sounds, cries for help and auscultatory sounds on assessment
Visual	Visual ability sufficient for observation and assessment necessary in client care	--Ability to observe client's condition and responses to treatments; --Ability to discern colors and changes in color shading; --Ability to read handwritten and printed data such as orders, medication labels, calibrations on syringes; --Ability to read chart content and interpret data correctly by clearly viewing monitors
Tactile Sense	Tactile ability sufficient for physical assessment	--Ability to sufficiently perform physical assessments including palpation, pulses, changes in skin temperature and anatomical appearance

Student Accommodations Statement

The nursing program is committed to the policies set forth by the Virginia Community College System regarding disabilities and reasonable accommodations. Students may request academic accommodations for disabilities through the Office of Student Services. The Disabilities Coordinator will evaluate the request and make recommendations for appropriate and reasonable accommodations, which the student will provide to the instructor. Individuals requiring temporary parking accommodations due to short-term illness should also contact Student Services. All correspondence will be kept confidential.

The Disability Services web page can be found at at https://www.mecc.edu/disabilityservices/. Contact the Disability Services Counselor for an appointment at least 2 weeks prior to the beginning of nursing classes if accommodations are requested. Success is contingent upon the ability to fulfill the core performance standards of the program with or without reasonable accommodations.

Reapplication/Readmission/Program Progression Process

All courses in the curriculum, both general education and nursing, must be completed in sequence prior to progressing to the next semester. Students must earn a minimum grade of "C" (80) in all nursing courses, a minimum grade of "C" in all non-nursing courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. A student may enroll only in the nursing courses listed in his/her current semester in the nursing program.

Clinical performance in a course is graded as Satisfactory/Unsatisfactory. A student who does not meet the clinical learning outcomes will fail the course. In addition, , a Comprehensive Drug Calculation Exam (CDCE) will be administered in NSG 115 to verify dosage calculation skills. Students must achieve at least 90 percent of maximum score on each CDCE with no more than three attempts in order to achieve passing grades in the course.

- Students who are not successful in any first semester nursing (NSG) course must reapply to the nursing program. Re-enrollment must occur no later than three years from successful completion of NSG 100 or NSG 115, otherwise the student will have to repeat all nursing courses.
- A student may continue in NSG 200 regardless of dropping or withdrawing from NSG 115.
- Any student who drops or withdraws from NSG 252 or NSG 270 must withdraw from the other course as they are corequisites.
- A student who has 2 academic failures (grades below a "C") in nursing courses, other than first semester, will be ineligible for reenrollment in the program.
- A student who wishes to reenter the nursing curriculum at any other level (e.g. NSG 152, NSG 170, NSG 210, NSG 211, NSG 230, NSG 252, NSG 270.) must write a letter to the nursing program coordinator requesting readmission in the semester prior to the semester of enrollment. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be basedon additional requested data, prior performance in the nursing program, and space availability. Based on the course(s) that must be repeated, the student who is readmitted may be required to complete a skills competency course or demonstrate competency in critical nursing skills, including dosage calculation, before progressing to the next level.
- According to the VCCS Policy 5.7.4, "A student will normally be limited to two enrollments in the same credit course." Any exception to this policy must be approved by the nursing program coordinator and the Vice President of Academic Affairs and Workforce Solutions.

A student must obtain permission from the nursing program coordinator to continue in the Nursing Program under the following conditions:

- Repeating a course with a grade below "C";
- Withdrawal from a nursing course;
- Cumulative GPA below 2.0.

Transfer of Nursing Credit

Students seeking to transfer credit from nursing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by the MECC and the nursing program. The student will be asked to provide course descriptions, documentation of completed direct patient care clinical hours, course syllabi, achievement or progressive testing scores, and selected data from the course instructor or program coordinator in order to determine placement in the nursing program. Consideration will be subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there may be an interruption in program progression and courses may need to be repeated. Applicants must be in good standing at their previous college with a "C" average or better and must provide documentation of eligibility to return to that nursing program as well as documentation of the number of hours of clinical experience providing direct patient care supervised by a qualified instructor. First semester nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program. If the first semester courses were taken three or more years prior to program admission then no nursing courses can transfer.

Decisions on admission offers to transferring applicants will be determined by the nursing program coordinator following official transcript analysis, review of completed nursing course outlines, and space and faculty availability. A transferring student must demonstrate expected level proficiencies by testing including demonstration of competency in critical skills.

For Further Information, Contact:

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Program of Study

First Year Fall

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.

Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

NUR 135 - Drug Dosage Calculations

2 Credits

Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates.
Prerequisite MDE 10; MTE/XDG1-5; SG - JM60; J161; or JALL
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

LBR 105 - Library Skills For Research

1 Credits

Introduces students to accessing, retrieving, evaluating, and applying a variety of digital and print information resources. Develops an understanding of the type of information provided in each of the information formats presented: reference, cataloged materials, magazines/journals, newspapers, and Internet sites. Provides background information, available resources, search techniques, sample searches, evaluation guides, and exams in each of the course units.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Summer

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Fall

NSG 115 - Health Care Concepts for Transition

5 Credits

Focuses on role transition from Licensed Practical Nurse to Registered professional nurse. Incorporates concepts of nursing practice and conceptual learning to promote health and wellness across the lifespan. Uses the nursing process to explore care delivery for selected diverse populations with common and predictable illness. Emphasizes the use of clinical judgement in skill acquisition.
Prerequisite BIO 141, BIO 142, ENG 111, PSY 230, SDV 100; Acceptance to the Transition Program
Corequisite NSG 200 and BIO 150
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Summer

NSG 200 - Health Promotion & Assessment

3 Credits

Introduces assessment and health promotion for the individual and family. Includes assessment of infants, children, adults, geriatric clients and pregnant females. Emphasizes health history and the acquisition of physical assessment skills with underlying concepts of development, communication, and health promotion. Prepares students to demonstrate competency in the assessment of clients across the lifespan. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite BIO 141 (or BIO 231 or NAS 161)
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

Second Year Spring

NSG 210 - Health Care Concepts I

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to physiological health

alterations and reproduction. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part I of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

Second Year Summer

ENG 112 - College Composition II

3 Credits

Further develops students' ability to write for academic and professional contexts with increased emphasis on argumentation and research. Requires students to evaluate, integrate, and document print and digital sources to produce a range of academic and multimodal texts, culminating in a fully documented research paper. This course requires proficiency in using word processing and learning management software. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

Third Year Fall

NSG 211 - Health Care Concepts II

5 Credits

Focuses on care of clients across the lifespan in multiple settings including concepts related to psychological and physiological health alterations. Emphasizes the nursing process in the development of clinical judgment for clients with multiple needs. Provides supervised learning experiences in college nursing laboratories, clinical/community settings, and/or simulated environments. Part II of II.
Prerequisite BIO 150 (or BIO 205), NSG 152 and NSG 170
Lecture Hours 3
Lab hours 6
Note Typically Offered: Fall/Spring

NSG 230 - Advanced Professional Nursing Concepts

2 Credits

Develops the role of the professional nurse in the healthcare environment in preparation for practice as a registered nurse. Introduces leadership and management concepts and focuses on the integration of professional behaviors in a variety of healthcare settings.
Prerequisite NSG 210 and NSG 211
Lecture Hours 2
Note Typically Offered: Fall/Spring

Third Year Spring

NSG 252 - Complex Health Care Concepts

2 Credits

Focuses on nursing care of diverse individuals and families integrating complex health concepts. Emphasizes clinical judgment, patient-centered care and collaboration.
Prerequisite NSG 210 and NSG 211
Lecture Hours 4
Note Typically Offered: Fall/Spring

NSG 270 - Nursing Capstone

4 Credits

Provides students with the opportunity to comprehensively apply and integrate learned concepts from previous nursing courses into a capstone experience. Emphasizes the mastery of patient- centered care, safety, nursing judgment, professional behaviors, informatics, quality improvement, and collaboration in the achievement of optimal outcomes of care. Provides supervised learning experiences in faculty and/or preceptor-guided college nursing laboratories, clinical/community settings, and/or simulated environments.
Prerequisite NSG 210 and NSG 211
Lab hours 12
Note Typically Offered: Fall/Spring

Graduates are eligible to sit for the NCLEX-RN Examination and subsequent licensure

Total Program Credits: 56

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Upon successful completion of NSG 115 credit will be awarded for NSG 100, NSG 106, NSG 130, NSG 152, NSG 170 (16 credits). These credits will appear on the student's official transcript.

Nursing Assistant (CNA), CSC

Purpose

Provide students with theory and laboratory experience required for employment in acute care, long-term care, and assisted living healthcare institutions. Prepare students to take the Virginia Board of Nursing Certified Nurse Aide exams. Provide employers with competent, entry-level CNAs.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Assist professional health care providers in assessing the physical, social, emotional, and spiritual needs of patients.
2. Communicate and relate interpersonally with patients and co-workers.
3. Observe, chart, and report patient findings.
4. Perform safety and infection control practices at all times.
5. Competently perform all skills required by the Virginia Board of Nursing curriculum.
6. Competently care for patients of various ages, with special emphasis on geriatric, home health, and long term facilities.
7. Register to take the skills and written portion of the certification exam.

Employment Opportunities

Opportunities for CNA's include employment in hospitals, long term care facilities, assisted living facilities, home health agencies, private care, and physician and practice offices.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Applicants must pass a drug screen and criminal background check. Applicants must submit proof of required vaccinations and health screenings. Travel is required to clinical facilities. Eligibility for certification testing is determined by the Virginia Board of Nursing.

For Further Information, Contact:

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Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

HCT 101 - Health Care Technician I

3 Credits

Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observation, charting and reporting; care planning, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares mutli-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, long and short term care facilities.
Prerequisite EDE10
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

HCT 102 - Health Care Technician II

4 Credits

Applies theory through laboratory experience for health care technicians to work in home health, long and short term facilities.
Corequisite HCT 101
Lecture Hours 2
Lab hours 6
Note Typically Offered: Fall/Spring/Summer

- Electives (from approved list) **7 Credits**

Students Receive AHA BLS for Healthcare Provider CPR Certification

Students Are Eligible to Take the Virginia Board of Nursing Certified Nurse Aide Exams

Students May Be Eligible To Take The Virginia Board Of Nursing Certified Medication Aide Exam, The Pharmacy Technician Certification Board Exam, The National Phlebotomy Association Certification Exam, Or The Cci Exam For Certification As An Ekg Technician

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Occupational Therapy Assistant (SWCC), AAS

Purpose

Graduates of the program are prepared to qualify as contributing members of the health care team who will care for patients under the supervision of a Registered Occupational Therapist. The goals of the occupational therapy team are to develop, restore, or maintain adaptive skills in individuals whose abilities to cope with daily living are threatened or impaired by disease, injury, developmental disability, or social disadvantage. This program is offered in partnership with Southwest Virginia Community College (SWCC) and degrees will be conferred from SWCC.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P. O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-2582. Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate knowledge of the structure and function of the human body.
2. Demonstrate knowledge of common diseases and disorders treated by OT.
3. Demonstrate the ability to document OT services to ensure accountability and to meet standards for reimbursement.
4. Identify components of professional behavior in the clinic and work setting.

Employment Opportunities

Occupational therapy assistants earn good incomes and work in a wide variety of settings. The U.S. Labor Department estimates that job openings for occupational therapy assistant will rise by nearly 40 percent over the next decade.

Certified Occupational Therapy Assistants can find employment in a wide variety of settings, including: hospitals, nursing homes, rehabilitation clinics, schools, and social service agencies.

Employment Opportunities

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Admission Requirements

In addition to the general requirements for admission to the College, consideration for a position in this program requires the following:

1. Graduation from high school or satisfactory completion of the GED.
2. The completion of one unit each of biology (with laboratory) and chemistry (with laboratory) or completion of BIO 141 and BIO 142 with no grade below a "C", prior to January 15 application deadline (deficiencies can be made up through developmental studies or college courses).
3. High school seniors who have not completed the full sequence of the prerequisite courses must be enrolled in the second semester of these courses and have earned a grade of "C" or above for the first semester to be considered for program admission. Grades in these courses must reflect a minimum of "C."
4. All high school courses and/or college work must reflect an overall grade average of "C" (2.5 GPA) or higher.
5. The completion of the Virginia Placement Tests (VPT) or multiple measures policy, with demonstrated readiness for ENG 111 and proficiency in MTE 1-6.
   - Satisfactory completion of ENG 111 with grade of "C" or above will meet the ENG pre-requisite
   - Scores of 520 or above for SAT math and 22 for ACT math or College Math courses number 151 or above with at least a "C" grade or better will meet the Math pre-requisite
   - The completion of the TEAS-AH test
6. Any prescribed developmental studies courses, must be successfully completed before the January 15 application deadline.
7. Twelve (12) hours of observation in an occupational therapy setting should be documented by the OT personnel denoting and date(s) and time(s).

Classes begin the fall semester of each academic year. Students accepted into the program are required to submit a certificate reflecting a successful physical examination, signed by a licensed physician. The physical examination must be completed after receiving notification of acceptance to the program and prior to beginning classes. Immunizations must be current and include Hepatitis B and MMR. Proof of Tuberculin skin test (PPD) and CPR certification must be shown on admission to the program and kept current throughout the program. Students are responsible for any additional costs related to physicals, vaccinations, uniforms, insurance, background checks, drug testing, clinical travel, or other needed supplies or requirements.

Additional Information

Clinical and Behavioral Requirements

Selected and supervised learning experiences are required by this program and will be accomplished at selected health care facilities. Because there are limited clinical sites within the area, students may be required to travel to other areas to complete clinical training. Students are responsible for providing their own transportation, uniforms, and living expenses during fieldwork experiences. In the fifth semester, there will be 40 hours per week of clinical time (Level II fieldwork) in two eight week segments, so students must plan their schedules accordingly. Program faculty will observe and evaluate the student's suitability for the profession. If in the judgment of the Program Faculty the student does not exhibit those behaviors required of the occupational therapy assistant, the student may be asked to withdraw from the program. All OTA students must complete Level II Fieldwork within 18 months following completion of academic preparation. A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

Program Requirements

The student is required to complete a sequence of courses and learning experiences. Students must achieve a grade of "C" or better in all program courses. Any student receiving a grade of "D" in any of the program courses will be placed on Program Probation. That course shall be remediated once, with a written contract containing the requirements of the remediation. Please note: Students may be required to wait at least one academic year before they will have an opportunity to remediate the course. Students on program probation status will only be allowed to remediate the course if there is an open position in the class. Dismissal from the program shall result if: 1) the student does not meet the requirements of the probationary contract; 2) the student receives a final grade of less than "C" in any program courses either during or after the period of the Program Probation; or 3) a final grade of "F" in any coursework after admittance

to the program will result in dismissal from the program. Remediated courses must be completed with a final grade of "C" or better.

Criminal Background Check/Drug Screening

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

For Further Information, Contact:

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Program of Study

First Year Fall

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary

system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 143 - Medical Terminology I

3 Credits

Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Part I of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring

- OCT 100 - Introduction to OT **3 Credits**

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.

Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- OCT 195 - Topics in OT for Physical Dysfunction **2 Credits**
- OCT 201 - OT with Psychosocial **3 Credits**
- OCT 205 - Therapeutic Media **2 Credits**
- NAS 177 - Upper Extremity Anatomy & Kinesiology **2 Credits**
- Humanities/Fine Arts Elective **3 Credits**

Second Year Summer

- OCT 190 - Coordinate Practice in OT I-Level I Fieldwork **1 Credits**
- OCT 207 - Therapeutic Skills **3 Credits**
- OCT 220 - OT for the Adult **2 Credits**

Second Year Fall

- OCT 190 - Coord. Practice in OT I-Level I Fieldwork **1 Credits**
- OCT 202 - OT with Physical Disabilities **4 Credits**
- OCT 203 - OT with Developmental Disabilities **4 Credits**
- OCT 208 - OT Service Management & Delivery **3 Credits**
- OCT 210 - Assistive Tech in OT **2 Credits**

Second Year Spring

- OCT 290 - Coordinate Practice in OT III-Level II Fieldwork **6 Credits**
- OCT 290 - Coordinate Practice in OT IV-Level II Fieldwork **6 Credits**
- OCT 298 - Seminar and Project OTA **1 Credits**

Eligibility To Sit For NBCOT Certification

Total Program Credits: 66

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

ITE 115 or ITE 100 will substitute for ITE 119. HIM 111 or HIM 112 will substitute for HLT 143. The completion of both PSY 231 and PSY 232 will substitute for PSY 230. BIO 231 will substitute for BIO 141 and BIO 232 will substitue for BIO 142.

Phlebotomy, CSC

Purpose

Provide students with advanced theory and laboratory experience required for employment in healthcare facilities. Prepare students to take the NPA (National Phlebotomy Association) certification exam. Provide employers with competent, entry-level phlebotomists. Provide students with exposure to the latest technology and devices being used.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Utilize universal precautions as outlined by the CDC.
2. Identify the venous anatomy and surfaces on which phlebotomy can be performed.
3. Differentiate between serum and plasma.
4. Analyze factors to be considered in venipuncture or skin puncture site selection.
5. Assemble the equipment and supplies needed to collect blood by venipuncture and skin puncture.
6. Discuss critical complications associated with blood collection.
7. Perform the steps in accurate specimen collection, tube draw order, and documentation procedures.
8. Perform a minimum of 100 successful venipunctures on human patients.

Employment Opportunities

Phlebotomists may be employed by physician and other practices, acute care facilities, long term care facilities, home health agencies, insurers and by some government agencies.

Program Requirements

An academic advisor will review with students their preparation in Mathematics and English. Students will be guided to appropriate preliminary coursework to give them the greatest chance of success in this program.

Additional Information

The is a competitive admissions program. The deadline to submit a program application to the summer cohort is April 15th, the deadline to apply for admission to the fall cohort is July 15th. Please visit www.mecc.edu to apply for program admission. Phlebotomy students must complete the following prior to enrolling in MDL 106:

- Proof & record of three Hepatitis B vaccinations OR proof of immunity by titer.
- Proof & record of two MMR vaccines OR proof of immunity by titer.
- Proof & record of negative TB test (two-step).
- Proof & record of seasonal flu shot.
- Proof & record of two Hepatitis A vaccinations OR proof of immunity by titer.
- Proof & record of two varicella vaccinations OR proof of immunity by titer.
- Proof & record of DTP (diphtheria, tetanus, pertussis) vaccinations OR proof of immunity by titer.
- Copy of BLS for Healthcare Provider (CPR) certification card, back and front.

- Passing of criminal and sexual background checks and drug screen.
- Clinical affiliates require documentation of current health insurance coverage.
- Voluntary disclosure of COVID-19 vaccination status.

For Further Information, Contact:

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Noelle Fleming, Program Coordinator

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Program of Study

First Semester (Summer or Fall)

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

HIM 111 - Medical Terminology I

3 Credits

Introduces the student to the language used in the health record. Includes a system-by-system review of anatomical disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part I of II.
Prerequisite EDE 10

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

HLT 100 - First Aid and CPR

3 Credits

Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

HLT 145 - Ethics for Health Care Personnel

2 Credits

Focuses on ethical concepts of health care. Emphasizes confidentiality, maintaining patient records, personal appearance, professionalism with patients/clients, associates, and an awareness of health care facilities.
Prerequisite EDE 10
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

MDL 105 - Phlebotomy

3 Credits

Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions.
Corequisite HIM 111, HLT 145
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

Students Earn AHA BLS For Healthcare Provider CPR Certification, AHA Heartsaver OSHA Bloodborne Pathogen Certification, And AHA Heartsaver First Aid Certification

Second Semester (Fall or Spring)

HIM 112 - Medical Terminology II

3 Credits

Continues with focus on the language used in the health record. Includes a system-by-system review of anatomic disease, and operative terms, abbreviations, radiography procedures, laboratory tests, and pharmacology terms. Part II of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 107 - Career Education

3 Credits

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MDL 106 - Clinical Phlebotomy

4 Credits

Focuses on obtaining blood specimens, processing specimens, managing assignments, assisting with and/or performing specified tests, performing clerical duties and maintaining professional communication. Provides supervised learning in college laboratory/and or cooperating agencies.
Prerequisite MDL 105
Corequisite HIM 112
Lecture Hours 2
Lab hours 6
Note Typically Offered: Fall/Spring

Eligible to Take the Work Ethic Proficiency Certification Exam

Students Eligible to Take the National Phlebotomy Association Certification Exam

Total Program Credits: 28

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Proof and record of clinical affiliate required vaccinations and titers are required for program admission. Please see an advisor for details.

Physical Therapy Assistant (WCC), AAS

Purpose

The two-year program is designed to prepare the student with the philosophical, theoretical, and clinical knowledge to become a trained technical health care worker who can assist the physical therapist in meeting the physical therapy needs of the public. These needs include, but are not limited to, improving patient mobility, relieving pain, lessening the functional limitations that occur as a result of physical disability. The profession of physical therapy also includes health and wellness promotion, public education, and injury and disability prevention. Students may register at MECC for their general education course requirements and apply to the WCC Physical Therapist Assistant Program for admission according to the procedure outlined below. Students will be totally responsible for transportation to and from the college(s) and the health agencies utilized for clinical experiences. The A.A.S. degree will be awarded by Wytheville Community College. Employment opportunities for the licensed Physical Therapist Assistant include positions in hospitals, nursing homes, home health care agencies, rehabilitation centers, school systems, and private practices. Graduates work under the direction and supervision of a physical therapist to provide such interventions as exercises, massage, electrical stimulation, paraffin baths, hot and cold packs, traction, or ultrasound. They also record the patient's response to treatment and report this to the supervising physical therapist. Employment settings include: outpatient clinics, acute care hospitals, longterm care and skilled care facilities, rehabilitation centers, home health care agencies, contracting agencies and corporations, and school systems. Patients range in age from newborn to the elderly, with age- and developmental stage-specific concerns.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate a general core of academic general education knowledge that includes written communication and biological, physical, behavioral, and social sciences.
2. Demonstrate knowledge of sciences and scientific reasoning in topics basic to physical therapy including the cardiovascular, endocrine and metabolic, gastrointestinal, genital and reproductive, hematologic, hepatic and biliary, immune, integumentary, lymphatic, musculoskeletal, nervous, respiratory, and renal and urologic systems; and the medical and surgical conditions across the lifespan commonly seen by physical therapist assistants.
3. Provide physical therapy care that adheres to practice standards of ethics, values, and responsibilities.
4. Provide Patient/Client management
5. Carry out the plan of care established by the physical therapist.
6. Demonstrate competence in implementing selected components of physical therapy interventions in the plan of care established by the physical therapist.
7. Demonstrate competence in performing components of data collection skills essential for carrying out the plan of care by administering the appropriate tests and measures (before, during, and after interventions).
8. Complete accurate documentation that follows guidelines and specific documentation formats required by state practice acts, the practice setting, and other regulatory agencies.
9. Respond effectively to patient/client and environmental emergencies that commonly occur in the clinical setting.
10. Participate in and promote the healthcare environment and practice management.

Employment Opportunities

Employment opportunities for the licensed Physical Therapist Assistant include positions in hospitals, nursing homes, home health care agencies, rehabilitation centers, school systems, and private practices. Graduates work under the

direction and supervision of a physical therapist to provide such interventions as exercises, massage, electrical stimulation, paraffin baths, hot and cold packs, traction, or ultrasound. They also record the patient's response to treatment and report this to the supervising physical therapist. Employment settings include: outpatient clinics, acute care hospitals, long-term care and skilled care facilities, rehabilitation centers, home health care agencies, contracting agencies and corporations, and school systems. Patients range in age from newborn to the elderly, with age- and developmental stage-specific concerns.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

The Physical Therapist Assistant Program participates in the WCC Health Programs' Selective Admissions process. In the event that there are more applicants for the PTA program than there are slots, a selective admissions process outlined below will take effect.

Deadline for submitting all required information to be considered for admission is February 15 of the spring before the desired fall semester admissions. The following Minimal admission requirements must be met by February 15 in the spring prior to the desired fall admission:

- Student must complete a Wytheville Community College General Student Application.
- Student must forward to WCC an official transcript of any and all non-VCCS college work previously attempted and/or completed by February 15. The student must ALSO forward to WCC an official high school transcript or copy of the student's GED by February 15. Students currently enrolled in high school at the time of application for admission should forward to WCC a copy of their high school transcript through the fall semester of the senior year. Transcripts should be sent as early as possible so that previous course work can be evaluated to determine the need for developmental courses prior to applying for admission to the PTA program.
- Competency in English and Math Essentials MTE 1-5 (or MDE 10) as demonstrated through the placement and diagnostic tests, or by satisfactorily completing the required MTE and/or ENF units or equivalent.
- Student must have completed one high school Biology with a lab with a minimum grade of "C", or the student must have successfully completed one unit of developmental or college-level Biology.
- Student must have completed one high school Chemistry with a lab with a minimum grade of a "C", or the student must have successfully completed one unit of developmental or college-level Chemistry.
- All Developmental coursework must be completed prior to the February 15 admission deadline.
- The student must have an overall minimum GPA of 2.5 for all college or high school work attempted. If the student has completed > 12 semester credit hours of college-level work, the college GPA will be used in calculating the student's admissions score. If the student has completed <12 semester credit hours of college-level work, the high school GPA will be used in calculating the student's admissions score. Because grades for courses taken during the spring semester of the application process will not be available during the student's application assessment, all GPA calculations will be based on work completed through the fall semester preceding the February 15 deadline.
- Student must complete twelve (12) shadowing hours with a physical therapist or a licensed physical therapist assistant in a physical therapy practice of the student's choice PRIOR to Feb. 15. The student may choose to complete the shadowing hours in one facility or in several, and the student may choose to perform more than the minimum number of hours required in order to have a more thorough knowledge of the field of physical therapy. Students should make the arrangements for the shadowing experience at a facility of their choosing at the convenience of the facility. The student should log the hours spent in the shadowing experience and should have their supervising clinician sign the log to verify the experience. Shadowing log forms are available here or you may use a form of your own choosing. Documentation of the shadowing experience is due in the WCC Admissions Office by Feb. 15.

- Student must take a pre-admissions screening test through WCC. The student must contact the WCC Testing Center at (276) 223 - 4707 or by e-mail at testing@wcc.vccs.edu to set up an appointment to take the ATI TEAS-AH Test. This is a web-based test that will cost the student a nominal fee payable via credit or debit card directly to the testing company on-line. The ATI TEASAH will assess the student's competency in high school level reading, high school level grammar, high school level Math up through Algebra I, and high school level general sciences. Tests may be taken at alternate sites; however, the student must make arrangements and schedule the test through the WCC testing center. Further information on the testing is available from the WCC Admissions Office at (276) 223 - 4702 or admission@wcc.vccs.edu .For the purposes of admission to the WCC PTA program, there is no "passing" or lowest possible score on the ATI TEAS-AH test. The score is merely added to the selective admissions score. Therefore, the higher the ATI TEAS-AH score, the more points toward the admissions score. The ATI TEAS-AH test must be completed in time for the scores to be reported to the WCC Admissions Office by February 15.
- Please take great care to sign up for the ATI TEAS-AH and not the TEAS test used for Nursing Program admission.
- Student must complete an application from the Selective Admissions Procedures for Health Professions Programs packet by February 15. This form identifies the student as an applicant for one of WCC's Health Programs and includes a checklist of required criteria for each program.
- All applicants meeting the above requirements by the February 15 deadline will be screened based upon items ranging from overall and sciences GPAs, TEAS-AH test performance, and completion of college level science classes. The top-scoring finalists will be offered an admissions interview with program faculty.

Following the completion of the interview, each application will be scored on items ranging from overall and science GPAs, ATI TEASAH test performance, completion of college-level science classes, and knowledge of the field of physical therapy communicated in the interview. The top scores will be offered admissions slots for the upcoming fall semester.

Students will be notified by approximately May 1st prior to the fall of admission of their admissions status. Students who are accepted for admission must notify the WCC Admissions Office of their intention to accept or decline the offered slot by the deadline listed on their admission letter. Failure to do so will result in the loss of that slot to an alternate.

Students who are not accepted into the program must re-submit the Health Professions Application from the Selective Admissions Procedure for Health Professions Programs packet to reapply for a future year. If they wish, these students may also schedule an appointment with PTA faculty to discuss ways to improve their application.

Students who fail to submit any of the required material to the WCC Admissions Office by the February 15 deadline will not be considered for admission for the following fall semester. There will be no exceptions. The WCC PTA program will establish only one admission deadline, as there are frequently many more applicants than available slots. Students submitting materials late may be considered for admission for the following year if they wish. It is HIGHLY recommended that students applying to the PTA program begin the admissions process early and check frequently with the WCC Admissions Office to ensure that their application is complete well before the February 15 deadline. It is not the duty of the WCC Admissions Office to notify applicants of incomplete application packets or missing information. Making sure that the admissions packet is complete is the sole responsibility of the applicant.

Additional Program Requirements

- Upon admission, the student must schedule a complete medical physical examination and return the completed physical form to the WCC Admissions Office by August 15. Included in this information must be a current record of the student's immunizations including all recommended childhood vaccines, immunization against Hepatitis B or waiver, current tetanus immunity, chicken pox and mumps immunity, and proof of HIV status.
- Students will be required to complete a criminal background check prior to enrollment in the program and a drug screen to be completed in the spring semester of the first year. These screens and checks will be

provided to the student through WCC at a nominal fee to the student. It should be noted that applicants who have been convicted of felonies or misdemeanors of a personal injury nature will have considerable difficulty in obtaining professional licensure in a health care field. Students with a history of illegal substance abuse indicated by criminal conviction or by positive drug screens will also have difficulty obtaining professional licensure.

- Students will achieve and maintain certification in Cardiopulmonary Resuscitation (Health Care Provider) throughout the course of the program, beginning in the spring of the first year.
- Students will take all program courses in the order that they are offered and are expected to complete all courses successfully prior to moving forward. Students must complete BIO 141 with a grade of "C" or better prior to enrolling in the second semester of the program. Students must complete BIO 142 with a grade of "C" or better prior to enrolling in the summer term between the second and third semesters of the program.
- In order to progress through the program, all students must receive a final grade of "C" or better in all courses with a PTH prefix and in BIO 141 and BIO 142. Students who do not receive a final grade of "C" or better in these courses will be ineligible to continue in the program and will be withdrawn. In addition, for all PTH classes that have a lab component, each student must earn an overall average of 75% in both the didactic and the laboratory portion of the course to successfully complete the course. Students who do not earn a 75% in both portions of the course will be considered to have failed the course and will be ineligible to continue in the program, regardless of their average in the other portion of the course.
- If a student must leave the program due to poor academic performance, or because of personal reasons, he or she may apply for reinstatement according to the following procedure:
- The student must apply in writing to the Physical Therapist Assistant Program Head at least one semester before the requested readmission date, requesting permission to repeat the course in which they received a grade lower than a "C." For students who left the program for reasons other than academics, they should request permission to re-enter the program at the point where they last successfully completed work.
- The student requesting re-entry must have at least a 2.0 cumulative GPA at the time of the request.
- Confer with the PTA Program Head, discussing the following subjects:
- Any personal or professional factors which may have an influence on the student's future academic success in the program
- Any academic or professional activities that the student may have participated in since leaving the program that may have an influence on the student's future academic success in the program
- There must be an available open slot in the program.
- Students may be required to take and pass written final examinations or lab skill check-offs for the courses that they have previously completed to ensure that they continue to have mastery of the content of these courses.

Normally the student will be notified of his or her re-admission to the program approximately 4 weeks prior to the beginning of the re-enrollment date. However, special circumstances may arise requiring shorter notice.

During the time that the student is not enrolled in the PTA program, he or she may elect to complete co-requisite work or other college courses; however, performance in these courses will be part of the student's overall GPA and may influence readmission. Having taken the co-requisites for the program will not influence the decision to readmit the student to the program, other than the influence these courses may make on the student's overall GPA. If a student has been withdrawn from the program due to a grade lower than a "C" in BIO 141 or BIO 142, the student must successfully complete these courses prior to re-admission.

Additional Information

Clinical Education Requirements

- Prior to beginning the clinical education portion of the program, the following criteria must be met:
- The student must sign a waiver freeing the clinical site, Wytheville Community College, the Virginia Community College System, and the Commonwealth of Virginia from any liability for any injury the student

may receive or from any liability claim that the student may incur, while engaged in the clinical portions of the physical therapist assistant program.

- The student must have a current physical examination.
- The student must read and agree to, as is evidenced by their signature, the rules and regulations of the WCC Physical Therapist Assistant Program as outlined in the Student Handbook.
- The student must read and acknowledge capability in all areas of the Physical Therapist Assistant Essential Functions, as indicated by the student's signature.
- The Student must hold a current CPR (Healthcare Provider) Certification.
- The student must provide the college with a current immunization record including evidence of completion of the Hepatitis B immunization series or a waiver, current tetanus immunity, chicken pox and mumps immunity, and proof of HIV status.
- The student will be required to complete a criminal background check prior to enrollment in the program and a drug screen to be completed in the spring semester of the first year. These screens and checks will be provided to the student through WCC at a nominal fee to the student.
- If a student has a positive finding on the Criminal Background Check and/or the Urine Drug Screen, the student may not be accepted for clinical education by any of the clinical education sites. If positive results occur, the program is not responsible for finding a clinical education placement for the student, and the student may not be able to continue his or her education in the program due to a lack of clinical education sites which are willing to accommodate the student. It then becomes the student's sole responsibility to locate a clinical education site that is willing to accommodate the student, after having been fully informed of the findings of the screen(s). The student is referred to the Student Handbook for spec

For Further Information, Contact:

Sarah Clarkston, Health Sciences Advisor
sclarkston@mecc.edu
276.523.9010

Wes Mullins, Dean
jmullins@mecc.edu
276.523.9017

Julia Jackson-King, Program Director, WCC
jjacksonking@wcc.vccs.edu

276.223.4721

Program of Study

First Year Fall

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are

applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- PTH 105 - Introduction to Physical Therapy **3 Credits**
- PTH 110 - Medical Reporting **2 Credits**

First Year Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic

system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- PTH 115 - Kinesiology for the Physical Therapy **4 Credits**
- PTH 121 - Therapeutic Procedures I **3 Credits**
- PTH 151 - Musculoskeletal Structure & Function **3 Credits**

Second Year Summer

- PTH 131 - Clinical Education I **2 Credits**
- PTH 210 - Psychological Aspects of Therapy **2 Credits**
- PTH 227 - Pathological Conditions **3 Credits**

Second Year Fall

- PTH 122 - Therapeutic Procedures II **5 Credits**
- PTH 225 - Rehabilitation Procedures **5 Credits**
- PTH 226 - Therapeutic Exercise **4 Credits**

Second Year Spring

- PTH 245 - Professional Issues **3 Credits**
- PTH 251 - Clinical Practicum I **3 Credits**
- PTH 252 - Clinical Practicum II **4 Credits**
- Humanities/Fine Arts Elective **3 Credits**

Eligibility for Licensure Exam as a PTA

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information. Applicants must be ARRT registered.

The completion of both PSY 231 and PSY 232 is a substitute for PSY 230. BIO 231 is a substitute for BIO 141. BIO 232 is a substitute for BIO 142.

Practical Nursing Leading to LPN, C

Purpose

The mission of the MECC Practical Nursing program is to facilitate the health of the community. This mission is accomplished through nursing education, leadership, scholarship, and innovative nursing practice. The foundation of these goals is lifelong learning, responsiveness to changing healthcare needs, generation and dissemination of new knowledge, and service to the public and the profession.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Obtain an entry-level nursing position within a variety of healthcare settings.
2. Provide nursing care encompassing the attainment and maintenance of the physical and mental health of clients within various stages of illness, healthcare settings, and throughout the entire life span.
3. Provide focused assessments of client within carious stages of illness using quantitative reasoning and critical thinking/judgement to identify client needs, care, data collection, evaluation, reporting, and documentation of care rendered.
4. Development of working concepts of anatomy, physiology, chemistry, microbiology, and behavioral sciences.
5. Development of skills to enhance communication, growth nd development, nurse-client, client education, and interdisciplinary teams in providing clietn care.
6. Development of professionalism in nursing and healthcare including: history and trends, role of the practical nurse, conflict resolution, ethical and legal aspects of nursing, Virginia Laws and Regulations governing nursing, cllient rights, privacy, and confidentiality, and mandated reporting status for child/elder abuse; appropriate use ofsocial and electronic media.
7. Provide care to client throughout the life span in various stages of illness and healthcare settings concepts of pharmacology, dosage calculations, medication administration and diet/nutrition therapies.
8. Development client centered care concepts including; respect for cultural differences, values and preferences; promotion of healthy lifestyles, safe client environments, prevention, recognition, intervention, and reporting child/elder abuse, as well as intimate partner and family violence, prevention and response to bioterrorism, natural and man-made disasters.
9. Development of management and supervisor skills including use of technology in client care, participation in quality improvement processes, supervision of aides and unlicensed assistive personnel.

Employment Opportunities

Employment opportunities for the Licensed Practical Nurse include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physicians' offices, clinics, home health agencies, day care centers, public schools, and civil service.

Program Requirements

An academic advisor will review with students their preparation in Mathematics and English. Students will be guided to appropriate preliminary coursework to give them the greatest chance of success in this program. All identified

developmental course needs must be completed prior to admission to the Practical Nursing program. https://www.mecc.edu/pathways/nursing-lpn/

1. Completion of and proof of state accredited high school diploma, home school diploma, or GED.
2. If the student has completed 9 or more semester credit hours of college-level work, college GPA will be used to calculate program admission GPA score. If the student has completed less than 9 semester credit hours of college-level work, the high school GPA (or total GED score) will be used in calculating the program admission GPA score.
3. Applicants are solely responsible for completing and/or submitting the following items:

- MECC application for admission to the college
- FAFSA (free federal financial aid application) annually
- MECC Practical Nursing Program Application (Spring Semester deadline is October 15; Fall Semester deadline is June 15).
- For students currently enrolled in any curricular non-nursing coursework during the semester of program application, application processing will be completed upon grade posting.
- A copy of high school transcript or GED scores and all college transcripts must be submitted as an attachment to the Application for Practical Nursing online program application. https://www.mecc.edu/practical-nurse-program-application/
- A copy of TEAS testing scoring sheet must be uploaded with the online application. Please ensure that your name and all scores are visible in the attachment.
- Completion of an online Practical Nursing Program Application is required for each academic year for which the applicant is interested in being considered.
- It is the sole responsibility of the applicant to ensure the program application file is complete and all supporting documents have been uploaded as part of the online program application process.
- It is the student's responsibility to ensure that all contact information recorded in the Student Information System is up to date and accurate.

Additional Information

Admission to Practical Nursing program is based upon:

- Demonstrated competency in math, English, and science by one or more of the following:
    - Readiness for NUR 135 (minimum testing scores of MTE 1-3 or MDE 10) or completion of NUR 135 (C or better course grade)
    - Readiness for ENG 111 ; or completion of ENG 111 (C or better course grade). All developmental course work must be completed prior to program admission.
- Biology with a lab (high school or college) with a "C" or better. **Applied biology and/or ecology does not satisfy this requirement.** PNE 155 , BIO 1 , BIO 101 or BIO 102 , BIO 141 or BIO 142 , BIO 145 , or NAS 171 will meet the admission requirements; however, BIO 141 & 142 or PNE 155 or BIO 145 or NAS 171 are recommended.
    - Cumulative GPA will be calculated using a points value system. GED recipients will be ranked according to their general equivalent diploma scores. See table below. **The most current grade recorded for coursework will be used in admission consideration.** Minimum cumulative GPA of 2.0 or its equivalent is required for program admission consideration.

Cumulative GPA level	**3.5-4.0**	**2.50-3.49**	**2.49-2.0**	**Below 2.0**
Circle applicable GPA used:				

High School GED (total score) College				
GPA points available	**5 points**	**2 points**	**1 point**	**0 points**
Points Awarded				

- TEAS (Test of Essential Academic Skills) entrance testing: Applicants must complete all sections of the TEAS test. The individualized adjusted score will be calculated using a points value system. Students can choose to submit previously completed TEAS testing scores. Testing scores must be dated within two (2) years of the program application.
- TEAS scores must be attached to the online program application.
  - Scheduling a TEAS examination: Go to www.mecc.edu/testing and click on the TEAS registration form link. Complete this form to register for a date and time to take the TEAS assessment. After you submit the form, you will receive an email outlining scheduling information within 48-72 hours.
  - Testing fee: $75.00. (price for testing subject to change).
  - Paying for TEAS testing: Fees for TEAS testing must be paid by credit card, debit card, or prepaid card in the Student Services Testing Center. Please bring one of these methods of payment with you on the day of your test. Student Services staff will assist test takers in processing the online payment.
- Study guides for the TEAS test can be found online at www.atitesting.com, uniontestprep.com/teas and the Wampler Library on MECC campus. Other resources may be found online using the search term: TEAS study guides or "Free Online TEAS Practice Tests".

TEAS Test	**Over 60%**	**55-60%**	**50-55%**	**45-50%**	**Notes:**
TEAS Test individual adjusted score: _____ Date test completed (must be within last 2 years) _____					Less than 45%, no points value
TEAS points available	5 points	3 points	2 points	1 point	
Points Awarded					**Total:**

- General Education Course Requirements. These are the required general education program courses that will be used to give points towards program admission. Courses must be successfully completed with a grade of "C" or higher for admission points values. Students are highly encouraged, but not required, to complete this coursework prior to submission of program application. Curricular non-nursing program courses will be calculated using a points value system. See table below:

Practical Nursing curricular general education courses-most recent grade recorded applies **Point values for the following courses:**	**A** **3**	**B** **2**	**C** **1**	**Notes:**
ENG 111				
NUR 135				
*PNE 155 (or BIO 141 and 142)				
BIO 141				
BIO 142				
**PSY 230 (or PSY 231 and 232)				
Point values for the following courses:	**1**	**0.5**	**0.25**	
SDV 100 (or SDV 101, 106, 107)				
HLT 130 (or HLT 138)				
SAF 130				
Non-nursing coursework points available	**18 points**	**11.5 points**	**5.75 points**	
Points Awarded				**Total:**

- *BIO 141 and 142 may be used in place of PNE 155 (not in addition to PNE 155). ** PSY 231 and 232 are equivalent to PSY 230 in point values.

Certified Nurse Aide additional points possible: CNAs with active certification and six months verified work experience are eligible for ten additional points. Criteria for GPA, TEAS, and general program admission requirements must be met to receive the additional points towards the program application process. CNAs wishing to receive these additional points must submit required documentation as an attachment to the online Practical Nursing program application process. Required documents include:

-- Copy of Board of Nursing certification

--An official letter from Human Resources verifying length of work experience (1,000 hours or 6 months minimum), area of experience, and employer's contact information

--All documentation will be verified by the program director

Criminal Background Check/Drug Screening

Background checks for criminal history and sex offender crimes against minors are required for entrance into clinical agencies. Background check and drug screening documentation must be dated within one (1) year of entry into the Practical Nursing program and be conducted through our approved third-party vendor. If background check and drug screen become dated over one year, and the student continues in the program, the criminal/sexual background check and the drug screening must be repeated at the student's expense. Students with convictions may be prohibited from

clinical practice and may not be allowed to complete the program. Any questionable background check will be reported to the clinical agency. Clinical agencies have final say whether a student may attend clinical or not. If a student is denied admission into the clinical agency, the student must withdraw from the program. Clinical agencies require drug testing prior to placement of students for clinical rotations. Students with positive drug test results will be prohibited from clinical practice and will not be eligible to complete the program. The cost of criminal background checks and drug testing will be the responsibility of the student.

Financial Requirements

Students are responsible for the following costs in addition to tuition, fees, and book costs: uniforms, CPR/First Aid certification, immunizations, physical exam, medical equipment (stethoscope, sphygmomanometer, pen light, watch with second hand, etc.), and mandatory review, required software, and testing services (ATI) throughout the program. Upon successful completion of all requirements within the Practical Nursing program, students will beapproved to take the NCLEX-PN examination. All fees related to licensure examination are the student's responsibility. Students are also responsible for their own transportation to the college and all clinical sites. Students who fail to meet these responsibilities will not be able to continue in the program. The anticipated cost of the entire training program is $8000.00 (subject to change as prices and tuition fluctuate).

Licensure Requirements

Qualifications for a Practical Nurse licensure have been established by the Virginia State Board of Nursing and can be found in Nursing Law of Virginia. Upon request, a written copy of these documents is available. Upon satisfactory completion of the Practical Nursing Program, the student should apply to graduate and will be awarded the Certificate in Practical Nursing. Graduates are approved to take the NCLEX-PN examination and obtain subsequent licensure. Students are responsible for all fees relating to the NCLEX-PN examination. Links for further NCLEX-PN and licensure information can be found at:

- https://www.dhp.virginia.gov/nursing/
- https://www.ncsbn.org/indext.htm

Notification of Acceptance

Email notification of program acceptance will be sent by January 5 for the Spring cohort applicants and August 10 for fall cohort applications (dates are subject to change based on number of applications to process). Email notifications and/or phone calls will be sent to the student's MECC email account and/or contact number listed in SIS (student information system). The college is not responsible for undeliverable or unchecked email. It is the student's responsibility to check their email and voice mail daily for correspondence regarding admission and follow all instructions outlined in emails. **If the applicant's acceptance of an admission offer is not completed by the stated deadline, the offer will be withdrawn without notice**. Appeals of an Admission Committee decision must be made in writing to the program faculty.

When the cohort has been filled, the remaining applicants will be placed on an alternate list based upon their score from the scoring matrix. Should an admitted student not accept his/her position, applicants from the alternate list will be admitted into the program through the last day of registration for spring/fall classes. If the College is unable to contact the next student on the alternate list by mail/phone, or if the student is unable to immediately commit to accept, the next student, on the alternate list, will be contacted with the offer.

Priority will be given to all qualified applicants applying by the deadline for the respective semester who are domiciled residents of Lee, Wise, Scott, Dickenson Counties and the City of Norton, and to Virginia domiciled residents not having access to a given program at their local community college. A domiciled resident is one who has lived in the locality or state for the twelve months before application deadlines. Applicants moving out of the locality or state between April 1 or September 1 and the first day of classes will lose their preferred status and any offer of admission to the program may be withdrawn. In addition, residents of localities with which the college has clinical-site affiliation (Sullivan County, TN, Hawkins County, TN, Hancock County, TN, and the city of Kingsport) may receive equal

consideration for admission as local residents. **Applicants who may not meet requirements for domicile are encouraged to meet with a faculty advisor.**

Practical Nursing Program Selection Criteria Scoring Matrix may be found at this link: https://www.mecc.edu/wp-content/uploads/Mountain-Empire-Community-College-Practical-Nursing-Selection-Criteria-GPA-TEAS-and-non-nursing-courses.pdf

Orientation

Students are required to complete a mandatory online Practical Nursing Program orientation. Upon receipt of the student acceptance letter by the Program Director and Enrollment Services, an email will be sent to the student with the online orientation link. Orientation is to be completed within five (5) days of receipt of orientation link. It is the student's responsibility to check their student email accounts for correspondence. The online orientation will be followed by an on-campus meeting to finalize registration to the Practical Nursing program.

Program Progression

Upon admission and during the course of the program, the LPN faculty will carefully observe and evaluate the student's aptitude for nursing. Students are expected to complete all courses listed in each semester of the curriculum before being allowed to enter subsequent semesters.

Any student who earns a grade **lower than "C" in any practical nursing curricular course must repeat the course and earn a final grade of "C" or better** before progressing to the next nursing course or graduating from the Practical Nursing Program. Courses must be completed by semester in sequential order. **Once a student is accepted into the Practical Nursing Program - Students may repeat one PNE prefix course, or acceptable substitute, once. Repeat is limited to the original enrollment and one additional enrollment in one course.** If a student fails a second time or subsequent course, the student will be dismissed from the Practical Nursing Program. Any exception to the above policy must have the approval of the director of the nursing program. Students who must repeat a nursing course will be enrolled in that course on a "space available" basis.

Students will be allowed two withdrawals from PNE courses. Upon a third withdrawal, the student will be dismissed from the program.

A minimum GPA of 2.0 must be maintained throughout the program. Upon failure to maintain a GPA of 2.0, the student will be dismissed from the program.

Students are highly encouraged to repeat PNE courses within the next available semester. If repeated coursework is not completed within one year, students must apply as new applicants to the program.

Students are highly encouraged to complete all non-nursing coursework prior to program admission. After acceptance into the Practical Nursing program, students are required to complete the coursework within the designated semester listed in the Practical Nursing curriculum.

ATI Proctor Exams: Content proctored exams will be required in the following courses: PNE 161, PNE 164 , PNE 173 , PNE 158 , PNE 145 , and PNE 132 and PNE 159 . Prior to proctor exam dates, students are required to complete the two ATI online practice tests. The first ATI course specific practice test will be in class and proctored. Students are required to complete remediation of areas based on the individual focused review provided at the end of testing. The second ATI course specific practice test must be completed wtih a minimum 100% score. The ATI comprehensive proctor exam will be utilized as the comprehensive final exam in PNE courses 161, 173, 158, 159, 164, 132, and 145. Final examinations are weighted 30% in specific PNE courses 161, 173, 158, 159, 164, 132, and 145. These proctored exams are calculated into the overall courses grade average as follows:

--Below Level 1 - 0

--Level 1 - 80%

--Level 2 - 90%

--Level 3 - 100%

ATI exit exam: The final exit exam is the ATI probability exam. This exam measures the readiness of students to pass NCLEX PN on the first attempt. An exit exam will be given to all students enrolled in PNE 145 and who are in their last semester of the PN program. Students will be given a practice probability exam (students are responsible for fee) and two (2) final attempts (purchased as part of the ATI review package) on the probability exam. This probability exam will calculate into the overall grade average for the PNE 145 - Trends in Practical Nursing course. During the third semester, students will be given three (3) different probability examination atatempts. The first is considered a practice test and will not be considered toward final grade average. The second probability test will be administered at mid-semester and the third probability test will be administered on the last day of class (times may vary from scheduled class time). If the student scores 95% or higher on the second attempt, they are not required to take the third probability attempt, but may choose to do so if desired. **Actual probability exam grade earned will be weighted at 80% of overall course grade average with a minimum score requirement of 80%. Any score made below 80% on the probability exam will result in zero being recorded for that grade.**

Physical Examination/ Immunization Requirements

Individuals accepted into the program must pass a physical examination given by a licensed physician, nurse practitioner, or physician assistant and be free of any physical or mental condition, which would adversely affect performance as a member of the nursing profession. Physical examinations documentation must be dated within one (1) year of program admission.If the physical examination becomes dated over one year, and the student continues in the program, the student must complete a continuation of health statement form verifying continued health status.

- Physical demands in this program include duties that frequently require squatting, bending, kneeling, reaching, stair climbing, lifting and carrying up to 50 pounds, frequent pushing and pulling up to 200 pounds with assistance, and occasional lifting and carrying up to 51-74 pounds. Duties also require constant use of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using standard precautions.
- Immunizations must be current,

1. If students are unable to provide proof of immunization (vaccination record or HCP documented history of disease), titers proving immunity to diseases must be submitted.
2. Upon entrance to program, 2 step TB testing - 1-3 weeks after first test.
   --If a student is unable to take PPD due to history of positive reaction, the student must be asymptomatic of tuberculosis as documented on the physical form. A current copy of a recent chest x-ray with results clearly documented must be on file. After clearance by two step TB testing, student will complete TB training modules (CDC website: ***TB 101 for Health Care Wortkers) and symptom questionnaire annually for clinical clearance. The TB training modules completion certificates and questionnaire must be loaded in to the student's Castlebranch account.
3. MMR X2,
4. tetanus every 10 years,
5. varicella X2 (or documented history), and
6. The Hepatitis B vaccine The series must be started prior to beginning clinical experience. This is a series of three vaccines over a 6-9 month period of time. Or students can choose to request from their healthcare provider the Dynavax two vaccine series, two vaccines scheduled one month apart.
7. Hepatitis A vaccine. Series of two vaccines scheduled at last six months apart.
8. Students must receive an annual, current season, flu vaccination or submit physician proof of documented allergy. Clinical affiliates require the documentation to include: manufacturer, lot number, expiration date of lot, and site of injection.
9. COVID vaccination guidance is subject to change. Currently clinical affiliates require full vaccination or an approved exemption.

- Students must also be certified in CPR (American Heart Association Healthcare Provider or American Red Cross Professional Rescuer).

- Students are NOT covered under any type of medical insurance through Mountain Empire Community College. Any and all expenses related to medical issues/injuries, whether personal or training related, is the sole responsibility of the student. Clinical affiliates require documentation of current health insurance coverage.

Core Performance Standards* for Admission to and Progression through the Nursing Program

In addition to the nursing program's admission requirements, the nursing program sets forth eligibility requirements by citing the core performance standards. The standards set forth cognitive, sensory, affective and psychomotor performance requirements for every nursing student. Each core performance standard is accompanied by examples of activities nursing students and nurses are required to perform while executing nursing care. Students must be able to demonstrate satisfactory application of these core performance standards in classroom, clinical and laboratory settings, with or without reasonable accommodations, during the course of the nursing program.

Requirement	Performance Standard	Examples
Critical Thinking	Critical thinking ability sufficient for clinical judgment and delivery of safe client care	--Identify cause and effect relationships in clinical situations; --Evaluate effectiveness of nursing interventions; --Use the scientific method in the development of nursing interventions; --Prioritize nursing tasks and solve problems
Quantitative Literacy	Quantitative literacy sufficient for clinical judgment and delivery of safe client care	--Ability to take measurements; --Perform arithmetic and numerical operations (such as is necessary for calculating medication dosages and rates); --Read and record graphical displays of scientific and real-time physiologic data
Professional Relationships	Interpersonal and emotional skills sufficient for professional interactions with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrouds	--Establish rapport with clients and colleagues; --Ability to engage in conflict resolution, demonstrate peer accountability; --Adapt to changing environments/stressors; --Perform multiple responsibilities concurrently; --Establish therapeutic boundaries
Communication	Ability for professional interactions with others in verbal, non-verbal and written form	--Explain treatment procedures; --Initiate health teaching; --Document and interpret nursing actions and client responses;

		--Ability to interpret common non-verbal expressions indicating pain, discomfort, anxiety and other behavioral states
Mobility/Endurance	Physical abilities sufficient for movement from room to room and in small spaces; ability to execute movements required to provide care and treatment to clients in all health settings including functioning in emergency situations	--Move around in client rooms, work spaces and treatment areas; --Administer cardiopulmonary resuscitation; --Walk and/or stand for prolonged periods during a 12 hour shift --Perform lifting, as required, up to 50 pounds
Motor Skills	Gross and fine motor abilities sufficient for providing safe, effective nursing care	--Ability to bend, squat, kneel, climb stairs, push, pull, reach for extended periods and assist in lifting, transferring, ambulating and positioning clients of all age groups and weights; --Calibrate and use equipment such as IV pumps; --Manipulate small equipment and containers such as syringes, vials and medication packages
Hearing	Auditory ability sufficient for monitoring and assessing health needs	--Ability to hear alarms and other emergency signals, normal speaking level sounds, cries for help and auscultatory sounds on assessment
Visual	Visual ability sufficient for observation and assessment necessary in client care	--Ability to observe client's condition and responses to treatments; --Ability to discern colors and changes in color shading; --Ability to read handwritten and printed data such as orders, medication labels, calibrations on syringes; --Ability to read chart content and interpret data correctly by clearly viewing monitors
Tactile Sense	Tactile ability sufficient for physical assessment	--Ability to sufficiently perform physical assessments including palpation, pulses, changes in skin temperature and anatomical appearance

*Southern Regional Education Board (SREB) Council on Collegiate Education for Nursing

Student Accommodations Statement

The nursing program is committed to the policies set forth by the Virginia Community College System regarding disabilities and reasonable accommodations. If you require special services or accommodations, you should visit the

Disability Services web page https://www.mecc.edu/disabilityservices/ and contact the Disability Services Counselor for an appointment at least 2 weeks prior to the beginning of nursing classes. Your success is contingent upon your ability to fulfill the core performance standards of the program with or without reasonable accommodations.

Virginia Board of Nursing request for accommodations for NCLEX PN testing information link:

Please refer to the link below for guidance on Virginia State Board of Nursing guidance on requests and follow through of requests for accommodations on NCLEX PN examination.

https://www.dhp.virginia.gov/media/dhpweb/docs/nursing/guidance/90-22.pdf

Reapplication to the Practical Nursing Program

If a student is not admitted to the program but wishes to reapply for the next year's class, he/she **MUST** complete a new online Practical Nursing Program Application form prior to established deadlines for the next year.

Students dismissed for academic reasons can reapply to the Practical Nursing program one time only. These students must complete the nurse aide program, obtain certification, and obtain at least 1,000 hours or 6 months' work experience prior to submitting application for re-admission. Students must also repeat all PNE coursework regardless of previous letter grade. Students will be limited to a maximum of two (2) admission to the MECC Practical Nursing program.

Special Note

The State Board of Nursing has the authority to deny licensure to any applicant who has violated any of the provisions of 54.1-3008 of the Code of Virginia. Any student entering the Practical Nursing program who has committed any legal offenses other than minor traffic violations may want to discuss these matters with the Director of the Practical Nursing program prior to application.

Transfer into the Practical Nursing program

Students wishing to transfer from other colleges' nursing programs will be given consideration by the program on an individual basis.

Students requesting to use TEAS scores from another institution or nursing program must have completed the test within the previous two (2) years prior to admission into the Practical Nursing program. It is the student's responsibility to submit copies of the TEAS testing results as an attachment to their online program application.

Students who transfer from another State Board of Nursing approved program will have to complete the following to receive credit: a) apply and meet all program admission requirements, b) Skills lab final exam and performance exam/check off, c) Medical math test with 90% accuracy (3 attempts allowed), d) complete a final comprehensive exam on transfer materials with 80% or greater score, and e) Received a grade of "C" (80% or higher) on any course requested for transfer.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocit
LPN	AL, AZ, AR, CO, DE, FL, GA, ID, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NH, NJ, NM, NC, ND, RI, OH, OK, SC, SD, TN, TX, UT, VA, VT, WA, WV, WI, WY	NV and OR	US Virgin Islands Guam Alaska

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocit
			California Connecticut District of Columbia Hawaii Illinois Massachusetts Michigan Minnesota New York Pennsylvania

Sources cited:

- *The Uniform Licensing Requirements (ULRs) are found at: https://www.ncsbn.org/NLC_ULRs.pdf*
- *States currently in the NLC are found at: https://www.ncsbn.org/nlcmemberstates.pdf*
- *A list of all state requirements is found at: https://www.ncsbn.org/14730.htm*
- *Compact states information at: https://www.ncsbn.org/nurse-licensure-compact.htm*

Statement for Practical Nursing program (LPN):

Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Certificate in Practical Nursing (LPN) program provides the following information for all prospective and current students:

The Mountain Empire Community College LPN program meets all Virginia Board of Nursing requirements for pre-licensure nursing education programs in the Commonwealth of Virginia.

The Commonwealth of Virginia participates with multiple (see table) other states in the National Council of State Boards of Nursing (NCSBN) National Licensing Compact (NLC) to allow nurses licensed in one state to provide nursing care across state lines in other compact states. Information listed is current per NCSBN as of July 1, 2020.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

For Further Information, Contact:

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Wes Mullins, Dean

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Program of Study

First Semester

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

NUR 135 - Drug Dosage Calculations

2 Credits

Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates.
Prerequisite MDE 10; MTE/XDG1-5; SG - JM60; J161; or JALL
Lecture Hours 2
Note Typically Offered: Fall/Spring/Summer

PNE 143 - Applied Nursing Skills

1 Credits

Applies principles and procedures essential to the basic nursing care of patients.
Prerequisite Current enrollment in the Practical Nursing Plan
Lab hours 3
Note Typically Offered: Fall/Spring

PNE 155 - Body Structure and Function

3 Credits

Studies the structure and function of the body.
Prerequisite Current enrollment in the Practical Nursing Plan
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PNE 161 - Nursing in Health Changes I

6 Credits

Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions.
Prerequisite Current Practical Nursing Student
Lecture Hours 4
Lab hours 6
Note Typically Offered: Fall/Spring

PNE 173 - Pharmacology for Practical Nursing

2 Credits

Studies history, classification, sources, effects, uses and legalities of drugs. Teaches problem solving skills used in medication administrations. Emphasizes major drug classes and specific agents within each class.
Prerequisite Current enrollment in the Practical Nursing Plan
Lecture Hours 2
Note Typically Offered: Fall/Spring

PNE 174 - Applied Pharmacology for Practical Nurses

1 Credits

Applies problem solving skills in preparing and administering medications.
Prerequisite Prerequisite is current enrollment in the Practical Nursing Plan.
Lecture Hours 0
Lab hours 3

Students Earn AHA Heartsaver OSHA Bloodborne Pathogen Certification. Option: After Successful Completion of PNE 161 and 40 Clinical Hours Students Are Eligible to Challenge the Certified Nurse Aide Exam

Students May Be Eligible to Take the Virginia Board of Nursing Certified Medication Aide Exam

Second Semester

PNE 162 - Nursing In Health Changes II

10 Credits

Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions.
Prerequisite Current enrollment in the Practical Nursing Plan
Lecture Hours 4
Lab hours 18
Note Typically Offered: Spring/Summer

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PNE 158 - Mental Health and Psychiatric Nursing

1 Credits

Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior.
Prerequisite Completion of all first Semester PNE Coursework and ENG 111
Lecture Hours 1
Note Typically Offered: Spring/Summer

PNE 159 - Care of Pediatric Clients

2 Credits

Studies normal and abnormal variations in children from infancy to adolescence. Covers milestones in all aspects of growth, development and common childhood disorders using the family-centered approach.
Prerequisite Completion of ALL first Semester PNE Coursework and ENG 111
Lecture Hours 2
Note Typically Offered: Summer

Third Semester

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PNE 164 - Nursing in Health Changes IV

10 Credits

Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions.
Prerequisite Current enrollment in the Practical Nursing Plan
Lecture Hours 4
Lab hours 18
Note Typically Offered: Fall/Summer

PNE 132 - Care of Maternal and Newborn Clients

2 Credits

Studies normal pregnancy, childbirth, post-partum, and the neonate along with complications associated with each phase using a family-centered approach.
Prerequisite PNE 162, PNE 158, PNE 159,and PSY 230
Lecture Hours 2
Note Typically Offered: Fall/Summer

PNE 145 - Trends in Practical Nursing

1 Credits

Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment.
Prerequisite PNE 162, PNE 158, PNE 159, and PSY 230
Lecture Hours 1
Note Typically Offered: Fall/Summer

HLT 130 - Nutrition and Diet Therapy

2 Credits

Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. This course applies to career/technical education (CTE) programs. HLT 230 serves both transfer and CTE programs.
Prerequisite EDE 10
Lecture Hours 1
Lab hours 1
Note Typically Offered: Fall/Spring/Summer

Graduates will be eligible to take the NCLEX-PN Examination and obtain subsequent licensure.

Total Program Credits: 51

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Completion of both PSY 231 and PSY 232 will substitute for PSY 230. Completion of BIO 145, or both BIO 141 and BIO 142, or completion of both BIO 231 and BIO 232, will substitute for PNE 155.

Radiography Technology (SWCC), AAS

Purpose

Graduates of the radiography technology program are prepared to contribute as members of the allied health team, care for patients under the supervision of qualified physicians, and meet requirements for ARRT certification. This program is being provided through an innovative, cooperative agreement with Southwest Virginia Community College. Students will register at MECC for their general education course requirements and register through SWCC for their program courses.

The educational experience will be comprised of both classroom instruction and clinical rotations for completing required competency objectives. Classroom instruction incorporates interactive video-teleconferencing between classroom locations. The A.A.S. degree will be awarded by Southwest Virginia Community College. The cooperative Radiologic Technology Program at Southwest Virginia Community College is dedicated to serve students from southwest Virginia and east Tennessee. The Program will provide a quality educational experience in the art and science of radiologic technology and help the students succeed, both academically and clinically, as entry-level radiographers. It is the Program's aim to provide a sound foundation for our students towards building a rewarding professional career, and an opportunity to qualify as a valued contributing member in the healthcare team for our region.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice positioning competency.
2. Practice the appropriate use of ionizing radiation and protection skills.
3. Practice the appropriate use of technical factors for exposure.
4. Practice critical thinking/problem solving skills for image quality and acceptability for diagnosis.
5. Practice critical thinking/problem solving skills on non-routine patient examinations.
6. Practice age appropriate patient communication skills.
7. Practice good writing skills.
8. Practice good oral skills.
9. Practice personal accountability for punctuality and appearance.
10. Understand the role of professional organizations in their career development.
11. Practice an understanding of professional/legal ethics.
12. Practice networking with colleagues/peers within the profession.

Employment Opportunities

Employment opportunities exist for well-trained, registered radiological technologists in hospitals, clinics, education, industry, government agencies, and private offices.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

In addition to the general admission requirements to the College, applicants must be high school graduates or the equivalent and must reflect a "C" average. A cumulative grade point average of 2.0 must be achieved on all college work. To meet the Radiography Program admission requirements, the applicant must have completed:

1. One unit of Biology with lab, one unit of Chemistry with lab with a "C" or better.
2. BIO 101 or 20 and CHM 05 or CHM 111 will be considered equivalent to high school Biology and Chemistry. Completion or test credit for MTE 1-6 or proficiency in MTH 154 within the past five years will fulfill the math pre-requisite.
3. Completion of a college placement test, which includes sections of reading, writing and mathematics. All prescribed developmental work must be completed before admission into the program.
4. Submitted a college and a radiography application (including all high school and college transcripts or copy of GED) to the Admissions Office at SWCC or VHCC.
5. Complete the TEAS-AH test prior to January 15th and submit to the Admissions Office (must be taken within the past five years).
6. Observation in a Radiology Department for a minimum of twelve (12) hours; this observation is to be documented by radiology personnel denoting date(s) and time(s); and be submitted to Donna Corns at SWCC.
7. Attend a general information session.
8. Because entry into this program is competitive, students must complete the application process with the Admissions Office at SWCC by no later than February 15th.

Additional Information

Accreditation

The program is fully accredited, with an 8 year award, by the Joint Review Committee for Radiologic Technology Education (JRCERT) 20 North Wacker Drive, Suite 2850, Chicago, IL, 60606-3182, phone (312)704-5300. You may also contact JCERT at mail@jcert.org or at www.jrcert.org. Detailed Program Effectiveness Data is available from the link on the right side of the page. The JRCERT also publishes program effectiveness data, available at https://portal.jrcertaccreditation.org/accredited-educational-programs/details/ 3fdeb5d1-39bf-4da8-8aff-0f5e1a817a0

Environmental Conditions

Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

Program Requirements

Upon admission and during the course of the program, the radiologic faculty will carefully observe and evaluate the student's suitability for the profession. If, in the opinion of the radiologic faculty, a student does not exhibit professional behavior, the student may be asked to withdraw from the program. Once enrolled, students who receive a final grade lower than "C" in any of the courses in radiography or related areas must obtain permission from the program director to continue the major in radiography. The Radiography Curriculum grading scale is as follows: A: 94-100; B: 87-93; C: 80-86; D: 73-79; F: Below 73.

Selected learning experiences will be provided at the cooperating hospitals within the geographic areas served by the colleges. Travel distance will vary, and can be more than 60 miles one way from your home campus, depending on the hospital clinical assignment. Travel can regularly exceed 60 miles from your home, depending on your residence location and the hospital clinical assignment. The program cannot guarantee clinical placement close to all students' homes, Students will rotate to a minimum of two clinical sites, at different locations, during the clinical component of the program.

Clinical Affiliates are located at the following facilities:

- Bristol Regional Medical Center, Bristol, TN

- Buchanan General Hospital, Grundy, VA
- New River Valley Medical Center, Christiansburg, VA
- Tazewell Community Hospital, Tazewell, VA
- Clinch Valley Medical Center, Richlands, VA
- Holston Valley Medical Center, Kingsport, TN
- Johnston Memorial Hospital, Abingdon, VA
- Lewis Gale Hospital, Pulaski, VA
- Lonesome Pine Hospital, Big Stone Gap, VA
- Russell County Hospital, Lebanon, VA
- Smyth County Community Hospital, Marion, VA
- Twin County Regional Hospital, Galax, VA
- Wythe County Community Hospital, Wytheville, VA

The purchase of and payment for items (such as: student uniforms, accessories, radiographic markers, dosimetry radiation monitoring service, club dues, state affiliation membership, educational software, clinical requirement document management account, HIPAA training, clinical tracking account, personal health insurance, liability insurance, required immunizations, physical examinations, background checks, drug screens, American Heart Association CPR certification fee, and ARRT licensure/certification application fee) is the responsibility of the individual student. Students are required to provide proof of health insurance at least annually while enrolled in the program.

Criminal Background Check/Drug Screening

Background checks for criminal history and sex offender crimes against minors are required for entrance into some clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost for criminal background checks and drug testing will be the responsibility of the student.

For Further Information, Contact:

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276.523.9010

Donna Corns, Interim Program Coordinator

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276-964-7642

Wes Mullins, Dean

jmullins@mecc.edu

276.523.9017

Program of Study

First Year Summer

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Fall

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

BIO 141 - Human Anatomy & Physiology I

4 Credits

Presents the study of anatomy & physiology including anatomical terminology, homeostasis, histology, integumentary system, skeletal system, muscular system, and nervous system. Part I of II. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills.
Prerequisite Students must have completed a high school biology and/or chemistry or complete NAS 2 prior to taking BIO 141.
Lecture Hours 3

Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- RAD 110 - Imaging Equipment & Protection **3 Credits**
- RAD 121 - Radiographic Procedures I **3 Credits**

First Year Spring

HLT 143 - Medical Terminology I

3 Credits

Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Part I of II.
Prerequisite EDE 10
Lecture Hours 3
Note Typically Offered: Fall/Spring

BIO 142 - Human Anatomy & Physiology II

4 Credits

IContinues study of anatomy and physiology including endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory system, urinary system, fluid, electrolyte, and acid-base balance, digestive system and nutrient metabolism, reproductive system, and prenatal development. Part II of II.
Prerequisite Completion of BIO 141 with a grade of C or better.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

- RAD 112 - Radiologic Science II **3 Credits**
- RAD 221 - Radiologic Procedures II **3 Credits**

Second Year Summer

- RAD 190 - Coordinated Internship (Term II) **3 Credits**
- RAD 190 - Coordinated Internship (Term I) **2 Credits**
- RAD 205 - Rad. Protection & Radiobiology (Term 1) **3 Credits**

Second Year Fall

- RAD 290 - Coordinated Internship **6 Credits**

PSY 230 - Developmental Psychology

3 Credits

Studies the development of the individual from conception to death. Follows a life-span perspective on the development of the person's physical, cognitive, and psychosocial growth.

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- RAD 246 - Special Procedures **2 Credits**
- RAD 270 - Digital Acquisition and Display **2 Credits**

Second Year Spring

- RAD 290 - Coordinated Internship **6 Credits**
- Humanities/Fine Arts Elective **3 Credits**
- RAD 240 - Radiographic Pathology **3 Credits**
- RAD 215 - Correlated Radiographic Theory **3 Credits**

Students Are Eligible to Take the National Registry Examination Leading to Certification as a Registered Technologist in Radiography by the ARRT

Total Program Credits: 72

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Completion of both PSY 231 and PPSY 232 will substitute for PSY 230. Completion of either HIM 111 or HIM 112 will substitute for HLT 143. Completion of BIO 231 will substitute for BIO 141. Completion of BIO 232 will substitute for BIO 142.

Respiratory Therapy, AAS

Purpose

The mission of the Mountain Empire Community College Respiratory Therapy Program is to provide competent advancedlevel respiratory therapists who demonstrate professionalism while providing excellent care. It will provide the graduates with comprehensive skills to meet the employment needs of the health care providers within the MECC service region, the Commonwealth, and the nation.

Program Learning Outcome/Goals

Upon successful completion, students will be able to:

1. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve using clinical information relevant to his/ her role as a registered respiratory therapist.
2. Demonstrate the ability to perform the clinical technical skills relevant to his/her role as a registered respiratory therapist.
3. Exhibit the personal behaviors consistent with professional standards and employer expectations of a registered respiratory therapist.

Employment Opportunities

Respiratory Therapists have job opportunities in hospitals, home care, rehabilitation agencies, nursing homes, emergency transport teams, sleep centers, pulmonary function laboratories, outpatient clinics, and physician offices. Respiratory Therapists sees a diverse group of patients ranging from newborn and pediatric patients to adults and the elderly.

Job opportunities are very good in this region and nationwide. The United States Bureau of Labor Statistics projects a 14 percent growth in jobs from 2021 to 2031. In September 2022 the U.S. Bureau of Labor Statistics reported the National annual mean wage of respiratory therapists were $61,830 and Virginia had an average annual mean wage of $65,240.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program. In addition to the general admission requirements of the College, this program requires a high/home school diploma or GED. High/home school courses must include one unit of algebra 1 and one unit of laboratory science with a C or above. If courses were not completed in high/home school with a C or above, they must be completed in college. The student's high/home school and any college work attempted must reflect a minimum of "C" average.

To apply to the program, please complete the Respiratory Therapy Program Application online. If you are a new student or have not attended classes within the past year, you will also need to complete an Application for Admission to the College. Respiratory Therapy classes begin in the summer semester each year. Applications are accepted from August 16th to May 1st for each class starting in June. A selection process is utilized to choose applicants for each year's program as each class is limited to a maximum of 20 students.

After the class has been filled, the remaining applicants will be placed on an alternate list. Should an admitted student not accept his/her position, applicants on the alternate list will be admitted into the program through the last day of registration for the summer classes.

Applicants who do not meet all the prerequisites will remain on the pre-respiratory list until all prerequisites are documented. Upon completion of the prerequisites, the applicant will be considered for admission to the program. If all the positions are filled, the applicant will be added to the alternate list.

A new Respiratory Therapy Program Application must be submitted for each year you wish to be considered for admission to the Respiratory Therapy program.

Additional Information

Accreditation and State Approval
The Respiratory Therapy Program at Mountain Empire Community College is accredited by the Commission for Accreditation for Respiratory Care (CoARC). Contact CoARC at P O Box 54876, Hurst, , TX 76054-4876, http://www.coarc.com/Students/Programmatic-Outcome-Data.aspx.

Licensure Reciprocity

Licensure	Meets state educational requirements for licensure	Does not meet the state educational requirements for licensure	MECC has not made a determination on licensure reciprocity
RRT CRT	AL, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY		AK - Currently do not have a state licensure for RT

Further information regarding RT state licensure requirements may be found at: https://www.aarc.org/advocacy/state-society-resources/state-licensure-contacts/

Statement for the Respiratory Therapy program (RT):
Pursuant to United States Department of Education (US DOE) regulation 34 CFR 668.43 (a) (5) (v), the Mountain Empire Community College Associates Degree in Respiratory Therapy (RT) program provides the following information for all prospective and current students:

The Mountain Empire Community College RT program meets all the requirements of the Commission on Accreditation for Respiratory Care (CoARC) and remains in good standing with this national accrediting body. All students upon successful graduation from the program are eligible to sit for their national boards through the National Board for Respiratory Care (NBRC). This program accreditation and national board credentialing will allow graduates to obtain licensure in 49 of the 50 states plus the District of Columbia. Alaska currently does not have a state licensure mandate for RT. But the graduate would still be able to obtain employment in Alaska upon completion of this program.

Licensure endorsement is available in 49 of the 50 states plus the District of Columbia.

Mountain Empire Community College is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

About Our Program
The Associate of Applied Science degree in Respiratory Therapy is designed to prepare selected students as competent Registered Respiratory Therapists and to serve as members of the health care team.

As a graduate, you are eligible to take the Therapist Multiple Choice (TMC) examination and the Clinical Simulation examination to be credentialed as a Registered Respiratory Therapist (RRT).

Criminal Background Check/Drug Screening
Background checks for criminal history and sex offender crimes against minors are required for entrance into clinical agencies. Students with convictions may be prohibited from clinical practice and may not complete the program. Clinical agencies may require drug testing prior to placement of students for clinical rotations. Students with positive drug test results may be prohibited from clinical practice and may not complete the program. Cost of criminal background checks and drug testing will be the responsibility of the student. Proper uniform must be worn when participating in clinical activities.

Physical Demands
Physical demands in this program include duties that frequently require walking, bending, reaching and lifting; pushing and pulling with assistance and occasional carrying. Duties also require constant use of acute sense of sight, hearing, touch, and speech.

Financial Requirements
In addition to the usual college tuitions and fees, the Respiratory Therapy program requires: uniforms, books, liability insurance, CPR certification, criminal background check, and miscellaneous equipment. Costs for drug screens, if required by clinical facility, are the responsibility of the student. Students are also responsible for transportation to and from the college and health agencies used for clinical experience.

Opportunities for Advancement
Opportunities for advancement are excellent for those willing to continue their education and training. Individuals who display leadership, team-building skills, self-confidence, motivation, and decisiveness become candidates for promotion.

Program Progression
Students are required to repeat a RTH or NAS course in which a grade lower than "C" is received before progressing to the next course or graduating from the program. All electives must have a grade of "C" or above.

Special Consideration
Students accepted into the program are required to submit a health certificate signed by a duly licensed physician, physician's assistant, or registered nurse practitioner and should include: documentation of measles, mumps and rubella (MMR) exposure or inoculations; TB skin testing or chest x-ray for previously positive TB results; and overall general health of the applicant.

For Further Information, Contact:

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Program of Study

First Year Summer

SDV 101-2 - Orientation to Careers in Health Sciences

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. This course is specifically for students who wish to pursue a career in Health Sciences. Lecture 1 hour per week.

Lecture Hours 1
Lab hours 0

NAS 171 - Human Anatomy & Physiology I

4 Credits

Presents the human organ systems and their functions as they relate to allied health science. Part I of II. This course applies to career/technical education (CTE) programs. BIO 141/142 and BIO 231/232 serve both transfer and CTE programs.
Prerequisite Must be Admitted to Plan 181, 152 or 285.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring

RTH 102 - Integrated Sciences for Respiratory Care II

3 Credits

Integrates the concepts of mathematics, chemistry, physics, microbiology, and computer technology as these sciences apply to the practices of respiratory care.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Note Typically Offered: Summer

RTH 110 - Fundamental Theory & Procedures for Respiratory Care

3 Credits

Focuses on the development of basic respiratory care skills necessary to enter the hospital environment.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Lab hours 3
Note Typically Offered: Summer

- Social Science/Humanities/General Transfer Elective **3 Credits**

AHA BLS for Healthcare Provider CPR Certification Earned; AHA Heartsaver OSHA Bloodborne Pathogen Certification Earned

First Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

RTH 111 - Anatomy & Physiology for the Cardiopulmonary System

3 Credits

Concentrates on anatomy and physiology of the cardio- pulmonary system.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Note Typically Offered: Fall

RTH 131 - Respiratory Care Theory & Procedures I

4 Credits

Presents theory of equipment and procedures and related concepts used for patients requiring general, acute and critical cardiopulmonary care. Part I of II.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

RTH 145 - Pharmacology for Respiratory Care I

2 Credits

Presents selection criteria for the use of, and detailed information on pharmacologic agents used in pulmonary care.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Note Typically Offered: Fall

RTH 151 - Fundamental Clinical Procedures I

4 Credits

Offers clinical instruction in basic patient care practices.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Lab hours 6
Note Typically Offered: Fall

First Year Spring

RTH 112 - Pathology of the Cardiopulmonary System

3 Credits

Presents pathophysiology of medical and surgical diseases with emphasis upon diseases of cardiopulmonary system.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Note Typically Offered: Spring

RTH 121 - Cardiopulmonary Science I

3 Credits

Focuses on pathophysiology, assessment, treatment, and evaluation of patients with cardiopulmonary disease. Explores cardiopulmonary and neuromuscular physiology and patho- physiology.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Note Typically Offered: Spring

RTH 132 - Respiratory Care Theory & Procedures II

4 Credits

Presents theory of equipment and procedures and related concepts used for patients requiring general, acute and critical cardiopulmonary care. Part II of II.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

RTH 152 - Fundamental Clinical Procedures II

4 Credits

Offers clinical instruction in basic patient care practices.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Lab hours 6
Note Typically Offered: Spring

Second Year Summer

RTH 135 - Respiratory Care Diagnostic & Therapeutic Procedures

2 Credits

Focuses on purpose, implementation and evaluation of equipment, and procedures used in the diagnosis and therapeutic management of patients with cardiopulmonary disease.
Prerequisite Plan# 181
Lecture Hours 1
Lab hours 1
Note Typically Offered: Summer

RTH 224 - Integrated Respiratory Therapy Skills I

2 Credits

Presents intensive correlation of all major respiratory therapy subject areas reflecting the entry-level and advanced practitioner matrices. Emphasizes assessment, implementation, and modification of therapy to patient response.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Note Typically Offered: Summer

RTH 253 - Advanced Clinical Procedures III

3 Credits

Offers clinical instruction in advanced patient care practices.
Prerequisite Current Respiratory Therapy Student
Note Typically Offered: Summer

- Science Elective **3 Credits**
- Humanities Elective **3 Credits**

Second Year Fall

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

RTH 226 - Theory of Neonatal & Pediatric Respiratory Care

2 Credits

Focuses on cardiopulmonary physiology and pathology of the newborn and pediatric patient.
Prerequisite Current Respiratory Therapy Student

Lecture Hours 2
Note Typically Offered: Fall

RTH 254 - Advanced Clinical Procedures IV

3 Credits

Offers clinical instruction in advanced patient care practices. Clinical 15 hours per week.
Prerequisite Current Respiratory Therapy Student
Note Typically Offered: Fall

RTH 227 - Integrated Respiratory Therapy Skills II

2 Credits

Presents intensive correlation of all major respiratory therapy subject areas reflecting the entry-level and advanced practitioner matrices. Emphasizes assessment, implementation, and modification of therapy to patient response.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Note Typically Offered: Fall

RTH 267 - 12 Lead Electrocardiographic Diagnostics

3 Credits

Presents a basic review of cardiac anatomy and physiology, and fundamental EKG's including the dysrhythmias. The focus of the remainder of the course is 12-lead diagnostics, including bundle branch clocks; hemiblocks; digitalis effects; myocardial ischemia, injury and infarction and related wave changes.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 3
Note Typically Offered: Fall

RTH 265 - Current Issues in Respiratory Care

2 Credits

Explores current issues affecting the profession of respiratory care.
Prerequisite Current Respiratory Therapy Student
Lecture Hours 2
Note Typically Offered: Fall

AHA Advanced Cardiac Life Support (ACLS) Certification Earned

Eligible For Certification Testing As A Certified Respiratory Therapist Or A Registered Respiratory Therapist

Total Program Credits: 72

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Manufacturing (Career Pathway)

3-D Design, CSC

Purpose

Classes offered in the 3-D Design Technology program will introduce you to design techniques that will prepare you to work in engineering technology fields. All of the courses taken are in the Computer-Aided Drafting and Design Technology curriculum. Students will take courses in related areas only. MECC utilizes CADD operations extensively. 3-D software programs are available and used extensively. These programs are the most widely used in industry in our service area. 3-D Design classes are available to day and evening students.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Demonstrate knowledge of drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline.
3. Demonstrate the ability to develop and /or interpret 2-D and 3-D projects to solve common engineering problems.
4. Illustrate the engineering design process from the transformation of an idea or need into a completed project.

For Further Information, Contact:

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Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as

visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

DRF 298 - Seminar & Project in Drafting

4 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 6
Note Typically Offered: Spring/Summer

First Year Spring

DRF 233 - Computer Aided Drafting III

3 Credits

Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system.
Lecture Hours 1
Lab hours 3
Note Typically Offered: Spring

MEC 122 - 3D Printing Engineering Design

3 Credits

Provides an overview of rapid technologies in Additive Manufacturing that are high productivity tools designed to cut lead times, reduce time to market, increase the quality of the product, and improve collaboration within the organization.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Total Program Credits: 17

Notes and Additional Curriculum Options

*Please consult with your advisor on the availability of courses and possible prerequisites and course substitutions.

Bioprocessing Operator, CSC

Purpose

This program is designed to provide basic skills to qualify graduates for entry level jobs as bioprocessing operators.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Use precision measuring equipment.
3. Operate and Troubleshoot electromechanical and electronic equipment and systems.
4. Compute, analyze, and communicate quantitative data using mathematical and logical methods to solve problems.
5. Demonstrate understanding of scientific concepts, theories, and basic scientific reasoning.

Employment Opportunities

The Bioprocessing Operator certificate provides an opportunity for student to learn the necessary skills to help manage production at a biotechnology facility. Students will learn the technical skills necessary as well as understanding the processes that are taking place.

Program Requirements

This two semester program is a co-op that allows students enrolled in the program to apply what they are learning in the classroom in a hands-on, paid training internship.

For Further Information, Contact:

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276.523.9085

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Program of Study

First Year Fall

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MEC 205 - Piping & Auxiliary Systems

3 Credits

Studies threaded pipe, welded pipe, isometric pipe sketching and layout, gaskets, packing, industrial hoses and tubing, basic steam system operations, automatic and manual valves, and positive displacement pumps.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

BIO 101 - General Biology I

4 Credits

Focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism,

and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport and UCGS Transfer course. Credit towards graduation cannot be awarded for both BIO 101 and BIO 106.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

First Year Spring

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

BIO 150 - Microbiology for Health Sciences

4 Credits

Focuses on the general characteristics, cellular structure, and metabolism of microorganisms. Emphasizes microbial relationships with individual and community health. Includes impact of microbes on human health and disease, microbial pathogenicity, identifying and managing infectious diseases and controlling microbial growth, healthcare associated infections and epidemiology. Studies aseptic culturing techniques with hands-on experience in safe microbiology practices.
Prerequisite BIO 101, 141, or 231
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Total Credits: 19

Chemical Process Operator, CSC

Purpose

This program is designed to provide basic skills to qualify graduates for entry level jobs as chemical operators.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Use precision measuring equipment.
3. Operate and Troubleshoot electromechanical and electronic equipment and systems.
4. Compute, analyze, and communicate quantitative data using mathematical and logical methods to solve problems.
5. Demonstrate understanding of scientific concepts, theories, and basic scientific reasoning.

Employment Opportunities

A chemical laboratory technician holds a general scientific position whose tasks vary greatly by organization type; this position is typically found at organizations that conduct scientific research or testing. Chemical laboratory technicians typically are responsible for the day-to-day operations performed by the company. Technicians may perform chemical tests on products and compounds, analyze compounds and chemicals for a variety of qualities and concentrations of substances, and maintain quality across all products. In addition to these tasks, most chemical laboratory technician must perform a variety of housekeeping tasks for their laboratory, ensuring that all facilities and instruments are clean and that any hazardous substances have been removed from the premises.

For Further Information, Contact:

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Program of Study

First Year Fall

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MEC 205 - Piping & Auxiliary Systems

3 Credits

Studies threaded pipe, welded pipe, isometric pipe sketching and layout, gaskets, packing, industrial hoses and tubing, basic steam system operations, automatic and manual valves, and positive displacement pumps.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

First Year Spring

SDV 107 - Career Education

3 Credits

Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice.
Prerequisite EDE 10

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CHM 101 - Introductory Chemistry

4 Credits

Explores the experimental and theoretical concepts of general chemistry while emphasizing scientific reasoning, critical and analytical thinking. Designed for the non-science major. This is a Passport and UCGS transfer course.
Prerequisite Competency in MTE 1-5 as demonstrated through placement or unit completion.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

Total Program Credits: 24

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

CMT - Electromechanical Technology Specialization, AAS

Purpose

The Electromechanical Technology Specialization of the Computerized Manufacturing Technology program trains students in various electrical, electronic, and mechanical components of systems and upon successful completion, awards the Associate of Applied Science Degree. Emphasis is on programmable logic controllers, motor controls, piping systems, valves, and related components, and process controllers. Computer skills and teamwork are also emphasized.

The electromechanical program will provide students with the knowledge and skills necessary to assume employment as competent electromechanical technicians. The program was developed in cooperation with Eastman Chemical Company. After the first year of the program, students have the opportunity for a one-year internship with Eastman after which they will return to MECC to finish the AAS degree.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Interpret drawings, schematics, and specifications for industrial equipment.
3. Use precision measuring equipment.
4. Troubleshoot and repair electromechanical and electronic equipment and systems.
5. Modify, install, maintain, and program electronic and electromechanical systems.
6. Modify, install, and maintain hydraulic and pneumatic systems.
7. Work as an effective member of a workgroup.

Employment Opportunities

Companies need competent electromechanical technicians. The electromechanical program was designed to meet this increasing need. The skills developed in this program will prepare students for jobs in chemical processing, coal mining, power plants and manufacturing. Jobs are available as electromechanical technicians, quality assurance technicians, and maintenance technicians.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 154 - Mechanical Maintenance I

3 Credits

Provides an overview of basic maintenance techniques and processes for industrial mechanics and technicians who are installing and maintaining industrial mechanical and power transmission components.
Lecture Hours 2

Lab hours 1
Note Typically Offered: Fall

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 100 - College Success Skills

1 Credits

Assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and Math placement testing. Strongly recommended for beginning students. Required for graduation.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Eligible For NCCER Construction Core & Level 1 Electrical Certification

First Year Spring

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.
Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

ETR 143 - Devices and Applications I

3 Credits

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their parameters, FETs, and operational amplifiers. May include UJTs, oscillators, RF amplifiers, thermionic devices and others. Part I of II. Co-requisite: knowledge of D.C./A.C. theory or permission of instructor.
Corequisite ELE 140 or knowledge of D.C./A.C. theory with divisional approval
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

IND 125 - Installation and Preventive Maintenance

3 Credits

Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 113 - Mat/Proc Indus

4 Credits

Studies industrial/engineering materials and accompanying industrial processes. Investigates nature of materials structure and properties from a design standpoint, leading to a more intelligent selection of a materials, as well as the processes themselves to ensure a logical and systematic procedure for selection of materials.
Lecture Hours 4
Note Typically Offered: Spring

- ITE 102 - Computers and Information Systems **1 Credits**

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Fall

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 205 - Piping & Auxiliary Systems

3 Credits

Studies threaded pipe, welded pipe, isometric pipe sketching and layout, gaskets, packing, industrial hoses and tubing, basic steam system operations, automatic and manual valves, and positive displacement pumps.
Lecture Hours 2

Lab hours 2
Note Typically Offered: Fall

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

Second Year Spring

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

ETR 218 - Industrial Electronics Circuit

4 Credits

Introduces the principles of industrial measurements and control: electrical, electronic, mechanical, thermal, and optical measuring and records, and actuators, electronic instrumentation control devices and circuits.
Prerequisite ELE 239
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

- Social Science Elective **3 Credits**
- Welding Elective **3 Credits**

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Computer-Aided Drafting and Design Technology, AAS

Purpose

Classes offered in the Computer-Aided Drafting & Design Technology major program will introduce you to architectural and mechanical design that will prepare you to work as a drafts person. Approximately one-half of the courses taken are in drafting and design technology. Students will also take courses in related areas and general education. MECC utilizes CADD operations extensively. Micro-Station PC, AutoCADD, and 3-D software programs are available. These programs are the most widely used in industry in our service area. Computer-Aided Drafting & Design Technology major classes are available to evening students.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate knowledge of drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline.
2. Perform and support estimating functions including quantity, types, costs, labor requirements, equipment, and scheduling functions.
3. Demonstrate the ability to develop and/or interpret 2-D and 3-D projects to solve common engineering problems.
4. Illustrate the engineering design process from the transformation of an idea or need into a completed project.
5. Develop quantitative reasoning skills useful in working in industry.
6. Collaborate with team members to identify and evaluate solutions to engineering problems.

Employment Opportunities

Successful completion of the Associate of Applied Science degree in the Computer-Aided Drafting & Design Technology major will prepare you for employment in areas in drafting and design including: mechanical, architectural, structural steel, and civil engineering.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jake Gilly

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276.523.9086

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

UMS 107 - Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School

3 Credits

Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate.
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

DRF 233 - Computer Aided Drafting III

3 Credits

Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system.
Lecture Hours 1
Lab hours 3
Note Typically Offered: Spring

GIS 201 - Geog Info Systems II

3 Credits

Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decision-making, modeling, programming, and data management. Covers map projections and data formats, and methods for solving the problems they create.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring/Summer

DRF 201 - Computer Aided Drafting & Design I

3 Credits

Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation.
Lecture Hours 2

Lab hours 2
Note Typically Offered: Spring

- PE/HLT - Personal Development Elective **1 Credits**
- Technical Elective **3 Credits**

MEC 122 - 3D Printing Engineering Design

3 Credits

Provides an overview of rapid technologies in Additive Manufacturing that are high productivity tools designed to cut lead times, reduce time to market, increase the quality of the product, and improve collaboration within the organization.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Second Year Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

CIV 171 - Surveying I

3 Credits

Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography.
Prerequisite MTH 111
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

DRF 231 - Computer Aided Drafting I

3 Credits

Teaches computer aided drafting concepts and equipment designed to develop a general understanding of components and operate a typical CAD system.
Lecture Hours 1

Lab hours 2
Note Typically Offered: Fall

GIS 205 - GIS 3 Dimensional Analysis

3 Credits

Introduces GIS 3D (three-dimensional) concepts and practices with a concentration on displaying, creating and analyzing spatial GIS data using 3D. Covers 3D shape files, 3D data formats such as Tins, DEMs, grids and controlling the perspective and scale of 3D data through rotating, panning and zooming.
Prerequisite GIS 200
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Summer

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

- Social Science Elective **3 Credits**

Second Year Spring

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

GIS 210 - Understanding Geographic Data

3 Credits

Provides the student an introduction to geographic data and the principles behind their construction. Introduces the concepts for measuring locations and characteristics of entities in the real world. Exposes the student to the limitations and common characteristics of geographic data.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Spring

CIV 172 - Surveying II

3 Credits

Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork and other topics related to transportation construction.
Prerequisite CIV 171
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

DRF 232 - Computer Aided Drafting II

3 Credits

Teaches advanced operation in computer-aided drafting.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

DRF 298 - Seminar & Project in Drafting

4 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 6
Note Typically Offered: Spring/Summer

or

DRF 290 - Coordinated Internship in Drafting

4 Credits

In order to apply drafting design and technology theory to practice, this cooperative venture will allow students to participate in on-site training in actual industrial setting. Appropriate placement will be with local industries which have drafting and design departments. Variable hours per week.
Lecture Hours 0
Lab hours 4
Note Typically Offered: Spring/Summer

Total Program Credits: 68

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Computerized Manufacturing Technology, AAS

Purpose

The Manufacturing Technology major is a broad-based curriculum that prepares students for a variety of technical positions within a manufacturing company. The company that hires the graduate, teaches the special skills and knowledge needed to be successful within the company.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Interpret drawings, schematics, and specifications for industrial equipment.
3. Use precision measuring equipment.
4. Troubleshoot and repair mechanical and electronic equipment and systems.
5. Modify, install, maintain, and program automated systems.
6. Work as an effective member of a work group.

Employment Opportunities

This major prepares graduates for growth in the automated manufacturing industry with each graduate expected to receive multiple job offerings.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jim Garland

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Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1

Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible for NCCER Construction Core & Electrical Level 1

First Year Spring

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.
Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MEC 113 - Mat/Proc Indus

4 Credits

Studies industrial/engineering materials and accompanying industrial processes. Investigates nature of materials structure and properties from a design standpoint, leading to a more intelligent selection of a materials, as well as the processes themselves to ensure a logical and systematic procedure for selection of materials.
Lecture Hours 4
Note Typically Offered: Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

Second Year Fall

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.

Lecture Hours 3
Note Typically Offered: Fall

Second Year Spring

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

- Humanities Elective **3 Credits**

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

- Social Science Elective **3 Credits**
- IND 250 - Intro to Basic Computer Integrated Manufacturing **3 Credits**

Total Program Credits: 65

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Industrial Maintenance, Cert

Purpose

The Industrial Maintenance Certificate Program is intended to meet the increasingly sophisticated maintenance needs of institutions, businesses, and industries. As systems become more computerized and complex, new maintenance skills are needed to keep machines at peak performance. With a broad-based approach touching on a cross-section of technical skills, the Industrial Maintenance Certificate Program provides entry level skills for these emerging industry needs. The Certificate Program can also provide significant retraining skills for individuals who have a technical background but want additional employment opportunities.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Interpret drawings, schematics, and specifications for industrial equipment.
3. Use precision measuring equipment.
4. Troubleshoot and repair electromechanical and electronic equipment and systems.
5. Modify, install, and maintain industrial systems.
6. Modify, install, and maintain hydraulic and pneumatic systems.
7. Work as an effective member of a work group.

Employment Opportunities

With the successful completion of the industrial Maintenance Certificate Program, graduates should be prepared for a wide variety of entry level maintenance positions in health care institutions, schools, businesses, mining and manufacturing industries.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

Jim Garland

jgarland@mecc.edu

276.523.9085

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible For NCCER Construction Core & Level 1 Electrical Certification

First Year Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.
Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

First Year Summer/Fall

ELE 239 - Programmable Controllers

3 Credits

Examines installation, programming, interfacing, and concepts of troubleshooting programmable controllers.
Corequisite ETR 143
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 205 - Piping & Auxiliary Systems

3 Credits

Studies threaded pipe, welded pipe, isometric pipe sketching and layout, gaskets, packing, industrial hoses and tubing, basic steam system operations, automatic and manual valves, and positive displacement pumps.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

IND 125 - Installation and Preventive Maintenance

3 Credits

Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

- Social Science Elective **3 Credits**

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Total Program Credits: 41

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Machinery Maintenance, CSC

Purpose

The Machinery Maintenance career studies program is designed to provide the job skills necessary for employment as an entry level industrial Maintenance.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Interpret drawings, schematics, and specifications for industrial equipment.
3. Modify, install, and maintain mechanical systems.
4. Modify, install, and maintain hydraulic and pneumatic systems.
5. Work as an effective member of a work group.

Employment Opportunities

This program is designed to be flexible and meet industry needs as they arise.

For Further Information, Contact:

Jim Garland

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276.523.9085

Matthew Rose, Dean

mwrose@mecc.edu

276.523.7431

Program of Study

First Year Fall

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside

preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SAF 126 - Principles of Industrial Safety

3 Credits

Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion.
Lecture Hours 3
Note Typically Offered: Fall/Spring

ELE 140 - Basic Electricity & Machinery

4 Credits

Studies direct and alternating current principles, resistors, magnetism, capacitors, protection systems, switches, controls and power distribution for industrial machine shops. Emphasizes test procedures and safety.
Lecture Hours 3
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 154 - Mechanical Maintenance I

3 Credits

Provides an overview of basic maintenance techniques and processes for industrial mechanics and technicians who are installing and maintaining industrial mechanical and power transmission components.
Lecture Hours 2
Lab hours 1
Note Typically Offered: Fall

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

Eligible For NCCER Construction Core & Level 1 Electrical Certification

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Mechatronics Technology, CSC

Purpose

The Mechatronics Technology career studies program is designed to provide the job skills necessary for employment as an entry level mechatronics technician.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Practice industry recognized safety practices and guidelines, including the use of personal protective equipment in an industrial operating environment.
2. Interpret drawings, schematics, and specifications for industrial equipment.
3. Troubleshoot and repair electromechanical and electronic equipment and systems
4. Perform routine, preventative maintenance on electromechanical systems.
5. Work as an effective member of a work group.

Employment Opportunities

This program is designed to be flexible and meet industry needs as they arise.

For Further Information, Contact:

Jim Garland

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Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

ELE 156 - Electrical Control Systems

3 Credits

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.

Corequisite ELE 140
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

ETR 143 - Devices and Applications I

3 Credits

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJTs), amplifiers and their parameters, FETs, and operational amplifiers. May include UJTs, oscillators, RF amplifiers, thermionic devices and others. Part I of II. Co-requisite: knowledge of D.C./A.C. theory or permission of instructor.
Corequisite ELE 140 or knowledge of D.C./A.C. theory with divisional approval
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

IND 125 - Installation and Preventive Maintenance

3 Credits

Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

MEC 113 - Mat/Proc Indus

4 Credits

Studies industrial/engineering materials and accompanying industrial processes. Investigates nature of materials structure and properties from a design standpoint, leading to a more intelligent selection of a materials, as well as the processes themselves to ensure a logical and systematic procedure for selection of materials.
Lecture Hours 4
Note Typically Offered: Spring

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding Operator I, CSC

Purpose

The Welding Operator I career studies certificate is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the program.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using oxyfuel and plasma arc cutting processes.
3. Weld in flat, horizontal, vertical and overhead positions using the basic welding processes of SMAW and GTAW.
4. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Career Studies Certificate in Welding Operator I will prepare students for the occupational goal of an entry level welder.

Program Requirements

Articulation course credits may be earned by the validation of welding skills learned in a vocational school or on-the-job experience.

For Further Information, Contact:

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276.523.7431

Program of Study

First Year Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible For NCCER Core And Welding Level One Certification

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding Operator II, CSC

Purpose

The Welding Operator II career studies certificate is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the program.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using oxyfuel and plasma arc cutting processes.
3. Weld in flat, horizontal, vertical and overhead positions using the basic welding processes of GMAW and FCAW.
4. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Career Studies Certificate in Welding Operator II will prepare students for the occupational goal of an entry level welder.

Program Requirements

Articulation course credits may be earned by the validation of welding skills learned in a vocational school or on-the-job experience.

For Further Information, Contact:

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Program of Study

First Year Fall

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Eligible For NCCER Welding Level Two Certification With Completion Of Level One

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding, AAS

Purpose

Graduates of the Technical Studies Welding program are trained in the job skills necessary to enter employment as apprentice welders immediately upon completion of the curriculum. Course work includes a strong emphasis in welding technology with related courses in computer applications, quality control, teamwork, and communication.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using (oxyfuel and plasma arc) cutting processes .
3. Weld in (flat, horizontal, vertical and overhead positions) using the basic welding processes of SMAW, GMAW, FCAW and GTAW..
4. Apply basic math and measurement.
5. Read and interpret basic blueprints and welding symbols to fabricate components.
6. Know the basic fundamentals of welding processes and applications, metallurgy.
7. Demonstrates professional and ethical work behavior.

Employment Opportunities

Graduates can expect to find employment as welders in a variety of industries including mining, manufacturing and construction.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Additional Information

Up to 15 hours credit may be given for documented previous work experience and certifications. Although the program is designed to educate and train welders entering the industry, the program offers increased skill levels and knowledge for experienced welders as well. Welders seeking a degree or desiring promotion to upper level managerial positions should also take advantage of this excellent opportunity.

For Further Information, Contact:

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Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

IND 101 - Quality Assurance Technology

3 Credits

Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Summer

WEL 129 - Pipefitting and Fabrication

3 Credits

Reviews basic mathematical skills necessary for the pipefitting trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, tees, odd angle elbows, 90 degree elbows, and the use of pipefitting and layout tools. May be taken with WEL 126.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 126 - Pipe Welding I

3 Credits

Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME code.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

Second Year Fall

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**

DRF 200 - Survey Computer Aided Drafting

4 Credits

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CAD system.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

- ENG 113 - Technical-Professional Writing **3 Credits**

Second Year Spring

- Math/Science Elective **3 Credits**

IND 137 - Team Concepts & Problem Solving

3 Credits

Studies team concepts and problem solving techniques to assist project teams in improving quality and productivity. Provides knowledge of how to work as a team, plan and conduct good meetings, manage logistics and details, gather useful data, communicate the results and implement changes.
Lecture Hours 3
Note Typically Offered: Fall/Spring

MEC 266 - Fluid Mechanic

3-4 Credits

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters.
Lecture Hours 3
Note Typically Offered: Spring

- Social Science Elective **3 Credits**

SAF 130 - Industrial Safety - OSHA 10

1 Credits

Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10).
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

Eligible For NCCER Welding Level 1 Certification

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Welding, C

Purpose

The Certificate in Welding is designed to prepare students for employment as apprentice welders immediately upon completion of the curriculum. Technical courses and shop experience comprise the majority of the program. The remaining courses are in related subjects and general education.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Follow industry safety practices.
2. Cut metals using (oxyfuel and plasma arc) cutting processes.
3. Weld in (flat, horizontal, vertical and overhead positions) using the basic welding processes of SMAW, GMAW, FCAW and GTAW.
4. Apply basic math and measurement.
5. Read and interpret basic blueprints and welding symbols to fabricate components.

Employment Opportunities

The Certificate in Welding will prepare students for the occupational goal of welder.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Program of Study

First Year Fall

WEL 100 - Fundamentals of Welding

3 Credits

Introduces arc and oxyfuel welding and cutting. Provides fundamental principles of joining ferrous and non-ferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 110 - Welding Processes

3 Credits

Introduces types of welding, their advantages and disadvantages. Points out effects of welds on metals to be machined. Provides practice and demonstration in welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 115 - Arc and Gas Welding

3 Credits

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall

WEL 123 - Shielded Metal Arc Welding (Basic)

3 Credits

Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures.
Lecture Hours 2
Lab hours 4
Note Typically Offered: Fall

BLD 110 - Introduction to Construction

3 Credits

Covers basic knowledge and requirements needed in the construction trades. Introduces use of tools and equipment, with emphasis on construction safety, including personal and tool safety. Provides a working introduction to basic blueprint reading and fundamentals of construction mathematics.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible For NCCER Construction Core And Welding Level One Certification

First Year Spring

HLT 105 - Cardiopulmonary Resuscitation

1 Credits

Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Equivalent to EMS 100.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

DRF 160 - Machine Blueprint Reading

3 Credits

Introduces interpreting of various blueprints and working drawings. Applies basic principles and techniques such as visualization of an object, orthographic projection, technical sketching and drafting terminology. Requires outside preparation.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

WEL 130 - Inert Gas Welding

3 Credits

Introduces practical operations in the uses of inert-gas- shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 160 - Gas Metal Arc Welding

3 Credits

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Summer

WEL 153 - Layout and Fitting for Welders

3 Credits

Covers the application of formulas and calculations to the proper layout and fitting of metals in welding projects. Emphasizes the use of jigs, fixtures, and hand tools in metal fabrication and assembly along with fabrication and safety procedures for hands-on and workplace projects.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring

WEL 198 - Seminar & Project in Welding

3 Credits

Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Fall/Spring/Summer

Students Are Eligible For CPR And Welding Level Two Certification

First Year Summer

WEL 126 - Pipe Welding I

3 Credits

Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME code.
Lecture Hours 2
Lab hours 3
Note Typically Offered: Spring

WEL 129 - Pipefitting and Fabrication

3 Credits

Reviews basic mathematical skills necessary for the pipefitting trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, tees, odd angle elbows, 90 degree elbows, and the use of pipefitting and layout tools. May be taken with WEL 126.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Fall

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ENG 115 - Technical Writing

3 Credits

Develops ability in technical writing through extensive practice in composing technical reports and other documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected reading. This course applies to career/technical education (CTE) programs. ENG 113 serves both transfer and CTE programs.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

PHY 131 - Applied Physics I

3 Credits

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, and electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. This course applies to career/technical education (CTE) programs. PHY 100 serves both transfer and CTE programs.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall

Humanities Elective **3 Credits**

Total Program Credits: 50

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Public Safety (Career Pathway)

Correctional Services, AAS

Purpose

The Associate of Applied Science degree in Correctional Services is to prepare individuals for carers in the criminal justice and Corrections occupations. It is not designed to train for any specialty, but rather to provide a broad foundation, which will prepare students to enter any of the many criminal justice fields.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate proficiency in discussing current Criminal Justice Issues.
2. Perform job within the legal/constitutional framework.
3. Demonstrate proficiency in proper procedures of Criminal Investigation techniques.
4. Identify, exhibit and apply ethical behavior on the job.
5. Demonstrate appropriate workplace behavior and exhibit appropriate interpersonal communication skills.

Employment Opportunities

Job openings are available in the law enforcement and the protective services fields with positions open in public law enforcement agencies, private security firms, as well as state and federal agencies.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Each applicant must meet with the College's Protective Services faculty for a personal interview. Applicants not already employed in criminal justice are cautioned as to the qualifications usually required for criminal justice agency employment: 1) Excellent moral character, no felony convictions or any crime involving moral turpitude, nor an excessive number of traffic citations. 2) A background investigation is normally conducted by the employing agency to confirm these conditions.

For Further Information, Contact:

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Program of Study

First Year Fall

ADJ 100 - Survey of Criminal Justice

3 Credits

Presents an overview of the United States criminal justice system; introduces the major system components--law enforcement, judiciary, and corrections.
Lecture Hours 3

ADJ 140 - Introduction to Corrections

3 Credits

Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system.
Lecture Hours 3

ADJ 171 - Forensic Science I

4 Credits

Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Part I of II.
Lecture Hours 3
Lab hours 3
Note May be completed out of sequence.

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for

ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- HLT, PED, ADJ 127, or ADJ 138 **1 Credits**

SDV 100 - College Success Skills

1 Credits

Assists students in transition to colleges. Provides overviews of college policies, procedures, curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. May include English and Math placement testing. Strongly recommended for beginning students. Required for graduation.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ADJ 146 - Adult Correctional Institution

3 Credits

Describes the structures, functions, and goals of state and federal correctional institutions (prisons, farms, community-based units, etc.) for adult inmates.
Lecture Hours 3

ADJ 172 - Forensic Science II

4 Credits

Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination.
Lecture Hours 3
Lab hours 3
Note May be completed out of sequence.

- Humanities Elective **3 Credits**

ADJ 245 - Management of Correctional Facility

3 Credits

Describes management options and operational implications for staffing, security, safety, and treatment. Considers impact of changes in public policy on corrections.
Lecture Hours 3

or

- ADJ 248 - Probation, Parole, and Treatment **3 Credits**

ADJ 107 - Survey of Criminology

3 Credits

Surveys the volume and scope of crime; considers a variety of theories developed to explain the causation of crime and criminality.
Lecture Hours 3

Second Year Fall

ADJ 241 - Correctional Law

3 Credits

Studies the legal rights and obligations of the convict- probationer, inmate, and parolee. surveys methods of enforcing both rights and obligations and the responsibilities of corrections agencies and personnel under correctional law (constitutional, statutory, and regulatory provisions).
Lecture Hours 3

ADJ 246 - Correctional Counseling

3 Credits

Presents concepts and principles of interviewing and counseling as applied in the correctional setting.
Lecture Hours 3

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

SOC 200 - Introduction to Sociology

3 Credits

Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

PSY 200 - Principles of Psychology

3 Credits

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Elective **3 Credits**

Second Year Spring

ADJ 296 - On Site Training in ADJ

3 Credits

In order to apply criminal justice theory to practice, this course will allow the student to participate in an on-site criminal justice learning experience in a variety of criminal justice agencies. Appropriate placements will be with police departments, sheriffs departments, juvenile and adult probation departments, correctional institutions, and departments of social services. Other placements will be evaluated on a case by case basis. Variable hours per week.

or

ADJ 227 - Constitutional Law for Justice Personnel

3 Credits

Surveys the basic guarantees of liberty described in the U. S. Constitution and the historical development of these restrictions on government power, primarily through U. S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system.
Lecture Hours 3

ADJ 105 - The Juvenile Justice System

3 Credits

Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the

right of juveniles, dispositional alternatives, rehabilitation methods and current trends.
Lecture Hours 3

SOC 200 - Introduction to Sociology

3 Credits

Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

PSY 200 - Principles of Psychology

3 Credits

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Corrections Management and Supervision, CSC

Purpose

The career studies certificate in Corrections Management and Supervision is designed for individuals in management and leadership positions in criminal justice and Corrections occupations. It focuses on critical problem solving and ethics and leadership skills.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Identifies and analyzes problems; weighs relevance and accuracy of information; generates and evaluates alternative solutions; makes recommendations.
2. Treats others with courtesy, and respect. Considers and responds appropriately to the needs and feelings of different people in different situations.
3. Identify, exhibit and apply ethical behavior on the job.
4. Demonstrate appropriate workplace behavior and exhibit appropriate interpersonal communication skills.

Program Requirements

Division approval is required for admission.

For Further Information, Contact:

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Cindy Ringley

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Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

ADJ 133 - Ethics and the Criminal Justice Professional

3 Credits

Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional.
Lecture Hours 3

ADJ 198 - Sem & Proj Criminal Justice

3 Credits

This course is an independent study for criminal justice students who do not take ADJ 296 - On-site training in Criminal Justice. The student will complete a major research project in any area relative to the criminal justice field.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

ADJ 241 - Correctional Law

3 Credits

Studies the legal rights and obligations of the convict- probationer, inmate, and parolee. surveys methods of enforcing both rights and obligations and the responsibilities of corrections agencies and personnel under correctional law (constitutional, statutory, and regulatory provisions).
Lecture Hours 3

ADJ 245 - Management of Correctional Facility

3 Credits

Describes management options and operational implications for staffing, security, safety, and treatment. Considers impact of changes in public policy on corrections.
Lecture Hours 3

ADJ 246 - Correctional Counseling

3 Credits

Presents concepts and principles of interviewing and counseling as applied in the correctional setting.
Lecture Hours 3

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Law Enforcement Management and Supervision, CSC

Purpose

The career studies certificate in Law Enforcement Management and Supervision is designed for individuals in management and leadership positions in criminal justice and Law Enforcement occupations. It focuses on critical problem solving and ethics and leadership skills.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Identifies and analyzes problems; weighs relevance and accuracy of information; generates and evaluates alternative solutions; makes recommendations.
2. Treats others with courtesy, and respect. Considers and responds appropriately to the needs and feelings of different people in different situations.
3. Identify, exhibit and apply ethical behavior on the job.
4. Demonstrate appropriate workplace behavior and exhibit appropriate interpersonal communication skills.

Program Requirements

Division approval is required for admission.

For Further Information, Contact:

Robert England

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Cindy Ringley

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276.523.9090

Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

ADJ 111 - Law Enfor Org & Adm I

3 Credits

Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Part I of II.
Lecture Hours 3

ADJ 112 - Law Enforcement Organization & Administration II

3 Credits

Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Part II of II. May be taken out of sequence.
Prerequisite divisional approval or ADJ 111.
Lecture Hours 3
Note May be taken out of sequence.

ADJ 133 - Ethics and the Criminal Justice Professional

3 Credits

Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional.
Lecture Hours 3

ADJ 198 - Sem & Proj Criminal Justice

3 Credits

This course is an independent study for criminal justice students who do not take ADJ 296 - On-site training in Criminal Justice. The student will complete a major research project in any area relative to the criminal justice field.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

ADJ 227 - Constitutional Law for Justice Personnel

3 Credits

Surveys the basic guarantees of liberty described in the U. S. Constitution and the historical development of these restrictions on government power, primarily through U. S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system.
Lecture Hours 3

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Police Science, AAS

Purpose

The Police Science degree is to prepare individuals for careers in the criminal justice and related occupations. It is not designed to train for any specialty, but rather to provide a broad foundation, which will prepare students to enter any of the many criminal justice fields.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate proficiency in discussing current Criminal Justice Issues.
2. Perform job within the legal/constitutional framework.
3. Demonstrate proficiency in proper procedures of Criminal Investigation techniques.
4. Identify, exhibit and apply ethical behavior on the job.
5. Demonstrate appropriate workplace behavior and exhibit appropriate interpersonal communication skills

Employment Opportunities

Job openings are available in the law enforcement and the protective services fields with positions open in public law enforcement agencies, private security firms, as well as state and federal agencies.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

Each applicant must meet with the College's Protective Services faculty for a personal interview. Applicants not already employed in criminal justice are cautioned as to the qualifications usually required for criminal justice agency employment: 1) Excellent moral character, no felony convictions or any crime involving moral turpitude, nor an excessive number of traffic citations. 2) A background investigation is normally conducted by the employing agency to confirm these conditions.

For Further Information, Contact:

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Matthew Rose, Dean

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276.523.7431

Program of Study

First Year Fall

ADJ 100 - Survey of Criminal Justice

3 Credits

Presents an overview of the United States criminal justice system; introduces the major system components--law enforcement, judiciary, and corrections.
Lecture Hours 3

ADJ 131 - Legal Evidence

3 Credits

Surveys the identification, degrees, and admissibility of evidence for criminal prosecution; examines pre-trial and trial procedures as they pertain to the rules of evidence.
Lecture Hours 3

ADJ 171 - Forensic Science I

4 Credits

Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Part I of II.
Lecture Hours 3
Lab hours 3
Note May be completed out of sequence.

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITE 119 - Information Literacy

3 Credits

Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. This course applies to career/technical education (CTE) programs. ITE 152 serves both transfer and CTE programs.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

First Year Spring

ADJ 107 - Survey of Criminology

3 Credits

Surveys the volume and scope of crime; considers a variety of theories developed to explain the causation of crime and criminality.
Lecture Hours 3

ADJ 130 - Introduction to Criminal Law

3 Credits

Surveys the general principles of American criminal law, the elements of major crimes, and the basic steps of prosecution procedure.
Lecture Hours 3

ADJ 236 - Principles of Criminal Investigation

3 Credits

Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence.
Lecture Hours 3

- HLT, PED, or ADJ 138/ADJ 127 **1 Credits**

ADJ 172 - Forensic Science II

4 Credits

Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/identification and latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination.
Lecture Hours 3
Lab hours 3
Note May be completed out of sequence.

- Elective **3 Credits**

Second Year Fall

ADJ 105 - The Juvenile Justice System

3 Credits

Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the right of juveniles, dispositional alternatives, rehabilitation methods and current trends.
Lecture Hours 3

ADJ 111 - Law Enfor Org & Adm I

3 Credits

Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Part I of II.
Lecture Hours 3

ADJ 133 - Ethics and the Criminal Justice Professional

3 Credits

Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional.
Lecture Hours 3

- Humanities Elective **3 Credits**

MTH 154 - Quantitative Reasoning

3 Credits

Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation. This is a Passport and UCGS transfer course.

Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring

SOC 200 - Introduction to Sociology

3 Credits

Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

PSY 200 - Principles of Psychology

3 Credits

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Second Year Spring

ADJ 296 - On Site Training in ADJ

3 Credits

In order to apply criminal justice theory to practice, this course will allow the student to participate in an on-site criminal justice learning experience in a variety of criminal justice agencies. Appropriate placements will be with police departments, sheriffs departments, juvenile and adult probation departments, correctional institutions, and departments of social services. Other placements will be evaluated on a case by case basis. Variable hours per week.

or

ADJ 227 - Constitutional Law for Justice Personnel

3 Credits

Surveys the basic guarantees of liberty described in the U. S. Constitution and the historical development of these restrictions on government power, primarily through U. S. Supreme Court decisions. Reviews rights of free speech, press, assembly, as well as criminal procedure guarantees (to counsel, jury trial, habeas corpus, etc.) as they apply to the activities of those in the criminal justice system.
Lecture Hours 3

SOC 200 - Introduction to Sociology

3 Credits

Introduces the fundamental concepts and principles of sociology with attention to sociological theory, research methods, and the impact of social inequality. Examines a variety of topics such as culture, race, social class, gender, major social institutions and their role in contemporary society, and the processes of social change. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

PSY 200 - Principles of Psychology

3 Credits

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

Total Program Credits: 67

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Technology (Career Pathway)

Computer Networking Technology, AAS

Purpose

The Computer Networking Technology student will take coursework in network infrastructure and Internet-working devices, network operating systems and network management.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Analyze, design and document computer network specifications to meet client needs.
2. Install and troubleshoot desktop, server, and infrastructure hardware.
3. Install, configure, and troubleshoot desktop, server, and infrastructure operating systems.
4. Use proper computer system and networking terminology; perform help desk functions to address end user needs.
5. Troubleshoot/debug, maintain, and upgrade server, client, and infrastructure systems.
6. Implement Local Area Networks using both static and dynamic IP addressing & sub-netting.
7. Install, configure, and maintain domain-based Local Area Network hardware and software.
8. Use computer systems and networks in a responsible and ethical manner.
9. Work as an effective member of a work group.

Employment Opportunities

The Associate of Applied Science degree program in Computer Network Technology is designed to prepare students to work in a wide range of employment areas as network installers, network technicians, network administrators, network planners, and network managers.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Program of Study

First Year Fall

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 101 - Introduction Network Concepts

3 Credits

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity.
Lecture Hours 3
Note Typically Offered: Fall

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITN 170 - Linux System Administration

3 Credits

Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

ITN 257 - Cloud Computing: Infrastructure and Services

3 Credits

Focuses on cloud infrastructure, deployment, security models, and the key considerations in migrating to cloud computing. Covers the technologies and processes required to build traditional, virtualized, and cloud data center environments, including computation, storage, networking, desktop and application virtualization, business continuity, security, and management.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible For Comptia Network+ And Security+ Certifications, AWS Cloud Practitioner Certification

First Year Spring

ITE 131 - Survey of Internet Services

1 Credits

Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp telnet, and other services.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ITP 150 - Python Programming

3 Credits

Entails instruction in fundamentals of object-oriented programming using Python. Emphasizes program construction, algorithm development, coding, debugging, and documentation of Python applications.
Lecture Hours 3
Note Typically Offered: Spring

ITN 154 - Introduction to Networks - CISCO

4 Credits

Provides introduction to networking using the OSI reference model. Course content includes data encapsulations, TCP/IP suite, routing, IP addressing, and structured cabling design and implementation.

Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

ITN 260 - Network Security Basics

3 Credits

Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Fall

ITN 261 - Network Attacks, Computer Crime and Hacking

3 Credits

Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

ITN 270 - Advanced Linux Network Administration

3 Credits

Focuses instruction on the configuration and administration of the Linux operating system as a network server. Emphasizes the configuration of common network services such as routing, http, DNS, DHCP, ftp, telnet, SMB, NFS, and NIS.
Prerequisite ITN 170 or ITN 171
Lecture Hours 3
Lab hours 0
Note Typically Offered: Spring

Eligible For IC3 Certification, Microsoft MOS Certification, Cisco CCT Enterprise Certifiation Eligible To Take The Work Ethic Proficiency Certification

Second Year Fall

ITN 107 - Personal Computer Hardware and Troubleshooting

3 Credits

Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations. Includes the installation of various peripheral devices as well as basic system hardware components.

Lecture Hours 3
Note Typically Offered: Spring

ITN 111 - Server Administration (Server 2022)

3 Credits

Covers installation, configuration, administration, management, maintenance, and troubleshooting of a server in a networked environment.
Lecture Hours 3
Note Typically Offered: Fall

ITN 155 - Switching, Routing and Wireless Essentials - CISCO

4 Credits

Provides the skills and knowledge to install, operate, and troubleshoot routers and switches in small networks. Introduces students to wireless local area networks (WLANS) and network security concepts.
Prerequisite ITN 154
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Social Science Elective **3 Credits**

Second Year Spring

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

or

ENG 113 - Technical Professional Writing

3 Credits

Develops ability in technical writing through extensive practice in composing technical reports and technical documents. Guides students in achieving voice, tone, style, and content in formatting, editing, and graphics. Introduces students to technical discourse through selected readings. Provides instruction and practice in basic principles of oral communication/presentation. This is a UCGS transfer course.
Prerequisite ENG 111
Lecture Hours 3
Note Typically Offered: Check Availability

ITN 112 - Network Infrastructure (PAN)

3 Credits

Covers planning, installation, configuration, administration, management, maintenance, monitoring, and troubleshooting of network infrastructure components.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

ITN 156 - Enterprise Networking, Security, and Automation - CISCO

4 Credits

Teaches students to configure, troubleshoot, and secure enterprise networks. Introduces students to virtualization, application programming interfaces (APIs) and the configuration management tools that make network automation possible.
Prerequisite ITN 155
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

ITE 290 - Coordinated Internship

3 Credits

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.
Lab hours 3
Note Typically Offered: Spring

- Humanities Elective **3 Credits**

Eligible For Cisco CCNA (Cetified Network Associate) And Career Readiness Certifications While Enrolled In ITE 290

Total Program Credits: 64

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Computer Software Specialist, AAS

Purpose

The Associate of Applied Science degree program in Computer Software Specialist is designed to prepare students to enter the workforce as computer professionals trained in a variety of cutting-edge software packages. General and specialized computer courses with an emphasis in programming and database applications are complemented by general education courses. Students will participate in a comprehensive program that includes both classroom and lab instruction, along with a work-based learning experience or a comprehensive computer project.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Write application software that makes efficient and secure use of operating system services.
2. Develop an information system using accepted software development processes.
3. Produce user applications using a specialized technology that builds upon fundamental software development practices.
4. Analyze a problem and identify the appropriate data, hardware components and/or software requirements to develop a feasible solution.
5. Use current tools and practices that support the software documentation process.
6. Document system requirements and/or develop materials for clients in the proper use of hardware or software.
7. Work cooperatively and effectively in teams to accomplish a shared goal.
8. Analyze local and global information technology (IT) trends, while recognizing the influences of IT on cultural, economic, ethical, and legal issues and responsibilities.
9. Support the management of information systems.
10. Use logical and mathematical reasoning to analyze, organize, and interpret data.

Employment Opportunities

Job opportunities in the immediate area and throughout the nation abound for students trained in computers. According to the Bureau of Labor Statistics' website, employment of software developers is projected to grow 24% from 2016 to 2026, which is much faster than the average for all occupations. Software developers will be needed to respond to an increased demand for computer software. Students completing the Computer Software Specialist AAS will be qualified for the following positions: Computer Software Specialist, Software Developer, Computer Lab Assistant, Help-Desk Technician, Database Operator/Manager, Software Consultant, Programmer, Software Tester/Analyst.

Opportunities for advancement are excellent for those students willing to continue their education and training. Students may wish to enhance their advancement opportunities by pursuing certifications available from various software vendors. Students also may want to couple their degree with the Cybersecurity Career Studies Certificate or the Mobile Applications Development Career Studies Certificate.

Program Requirements

An academic advisor will review your preparation in Mathematics and English with you. You'll be guided to appropriate preliminary coursework to give you the greatest chance of success in this program.

For Further Information, Contact:

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Jane Jones, Dean

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Program of Study

First Year Fall

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 101 - Introduction Network Concepts

3 Credits

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity.
Lecture Hours 3
Note Typically Offered: Fall

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics

such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITN 171 - Unix 1

3 Credits

Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell.
Lecture Hours 3
Note Typically Offered: Fall

ITN 257 - Cloud Computing: Infrastructure and Services

3 Credits

Focuses on cloud infrastructure, deployment, security models, and the key considerations in migrating to cloud computing. Covers the technologies and processes required to build traditional, virtualized, and cloud data center environments, including computation, storage, networking, desktop and application virtualization, business continuity, security, and management.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible For Comptia Network+ And Security+ Certifications, AWS Cloud Practitioner Certification

Eligible For The Software Development I Career Studies Certificate

First Year Spring

ITN 260 - Network Security Basics

3 Credits

Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability.

Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Fall

ITE 131 - Survey of Internet Services

1 Credits

Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp telnet, and other services.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ITE 150 - Desktop Database Software

3 Credits

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels.
Lecture Hours 3
Note Typically Offered: Fall

ITP 150 - Python Programming

3 Credits

Entails instruction in fundamentals of object-oriented programming using Python. Emphasizes program construction, algorithm development, coding, debugging, and documentation of Python applications.
Lecture Hours 3
Note Typically Offered: Spring

ITP 140 - Client Side Scripting

3 Credits

Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s).
Lecture Hours 3
Note Typically Offered: Spring

ITD 110 - Web Page Design I

3 Credits

Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames.
Lecture Hours 3
Note Typically Offered: Fall/Summer

Eligible For IC3 Certification, Microsoft MOS Certification, HTML5, CCS3, And Javascript

Eligible For The Software Development II Career Studies Certificate

Second Year Fall

ITP 132 - C++ Programming I

3 Credits

Centers instruction in fundamentals of object-oriented programming and design using C++. Emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications.
Prerequisite ITP 100
Corequisite MTH 161
Lecture Hours 3
Note Typically Offered: Fall

ITD 132 - Structured Query Language

3 Credits

Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases.
Lecture Hours 3
Note Typically Offered: Fall

ITP 225 - Web Scripting Languages

3 Credits

Introduces students to the principles, systems, and tools used to implement Web applications. Provides students with a comprehensive introduction to the programming tools and skills required to build and maintain interactive Web sites. Students will develop Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications.
Prerequisite ITD 110 and ITP 100
Lecture Hours 3
Note Typically Offered: Fall

ENG 111 - College Composition I

3 Credits

Introduces and prepares students to the critical processes and fundamentals of writing in academic and professional contexts. Teaches the use of print and digital technologies to promote inquiry. Requires the production of a variety of academic texts, totaling at least 4500 words (15 pages typed) of polished writing. This course requires proficiency in using word processing and learning management software. This is a Passport and UCGS transfer course. Readiness for ENG 111.
Prerequisite Readiness for ENG 111.

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Physical Education Elective/Health Elective **1 Credits**
- Social Science or Humanities Elective **3 Credits**

Eligible For Oracle Database SQL Certified Associate And Certified Associate In Python Programming

Eligible For The Computer Software Specialist - Mobile Applications Career Studies Certificate

Second Year Spring

ITP 232 - C++ Programming II

3 Credits

Presents in-depth instruction of advanced object-oriented techniques for data structures using C++.
Prerequisite ITP 132
Lecture Hours 3
Note Typically Offered: Spring

ITN 261 - Network Attacks, Computer Crime and Hacking

3 Credits

Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

ITP 298 - Capstone

3 Credits

Includes advanced study in areas specifically related to the student's occupational emphasis. This course includes the required completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field.
Note Typically Offered: Spring

MTH 111 - Basic Technical Mathematics

3 Credits

Provides a foundation in mathematics with emphasis in arithmetic, unit conversion, basic algebra, geometry and trigonometry. This course is intended for CTE programs.
Prerequisite See Table M for placement information

Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

- Humanities Elective **3 Credits**
- Social Science Elective **3 Credits**

Eligible For C++ Certified Associate Programmer And Certified Ethical Hacker

Eligible To Take The Work Ethic Proficiency Certification

Total Program Credits: 66

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

CSS - Mobile Application Development, CSC

Purpose

The Computer Software Specialist - Mobile Application Development Career Studies Certificate is designed to prepare students to enter the workforce as mobile application developers who can create and test business-oriented software applications. The curriculum consists of general and specialized computer courses with an emphasis in mobile applications programming.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Write application software that makes efficient and secure use of operating system services.
2. Develop an information system using accepted software development processes.
3. Produce user applications using a specialized technology that builds upon fundamental software development practices.
4. Analyze a problem and identify the appropriate data, hardware components and/or software requirements to develop a feasible solution.
5. Use current tools and practices that support the software documentation process.
6. Document system requirements and/or develop materials for clients in the proper use of hardware or software.
7. Work cooperatively and effectively in teams to accomplish a shared goal.
8. Analyze local and global information technology (IT) trends, while recognizing the influences of IT on cultural, economic, ethical, and legal issues and responsibilities.
9. Support the management of information systems.
10. Use logical and mathematical reasoning to analyze, organize, and interpret data.

Employment Opportunities

Job opportunities in the immediate area and throughout the nation abound for students trained in computers. According to the Bureau of Labor Statistics' website, employment of software developers is projected to grow 24% from 2016 to 2026, which is much faster than the average for all occupations. Software developers will be needed to respond to an increased demand for computer software.

For Further Information, Contact:

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Program of Study

First Year Fall

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 170 - Linux System Administration

3 Credits

Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

First Year Spring

ITD 110 - Web Page Design I

3 Credits

Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames.
Lecture Hours 3
Note Typically Offered: Fall/Summer

ITP 150 - Python Programming

3 Credits

Entails instruction in fundamentals of object-oriented programming using Python. Emphasizes program construction, algorithm development, coding, debugging, and documentation of Python applications.
Lecture Hours 3
Note Typically Offered: Spring

Second Year Fall

ITP 132 - C++ Programming I

3 Credits

Centers instruction in fundamentals of object-oriented programming and design using C++. Emphasizes program construction, algorithm development, coding, debugging, and documentation of C++ applications.
Prerequisite ITP 100
Corequisite MTH 161
Lecture Hours 3
Note Typically Offered: Fall

ITP 225 - Web Scripting Languages

3 Credits

Introduces students to the principles, systems, and tools used to implement Web applications. Provides students with a comprehensive introduction to the programming tools and skills required to build and maintain interactive Web sites. Students will develop Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications.
Prerequisite ITD 110 and ITP 100
Lecture Hours 3
Note Typically Offered: Fall

Eligible For The Computer Software Specialist - Mobile Applications Career Studies Certificate

Total Program Credits: 18

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Cybersecurity, CSC

Purpose

The Cybersecurity Career Studies Certificate is designed to prepare students to enter the workforce with essential cybersecurity training to help plan and implement an organization's information security, install security hardware and software, monitor networks for security breaches, respond to cyber-attacks, and gather evidence to be used in prosecuting cyber-crime. The training focuses on the strategies, techniques, and defense mechanisms required to mitigate global cyber threats. This certificate includes both classroom and lab instruction.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Analyze, design and document computer network specifications to meet client needs.
2. Understand computer systems, networking, and information security terminology.
3. Install, configure, and troubleshoot workstations, servers, and network infrastructure.
4. Use computer systems and network security in a responsible and ethical manner.
5. Ensure the implementation of the five security keys: confidentiality, integrity, availability, accountability and auditability when creating security policies and procedures.
6. Understand different hacking attacks and defense methodologies.
7. Analyze local and global information technology (IT) and security trends, while recognizing the influences of IT on culture, economic, ethical, and legal issues and responsibilities.
8. Gain the ability for computer forensic investigation by collecting computer-related evidence at the physical layer from a variety of digital media.
9. Secure communication protocols from hacking attacks by highlighting protocol weaknesses that include Internet architecture, routing, addressing, topology, fragmentation and protocol analysis.

Employment Opportunities

The Cybersecurity Career Studies Certificate program will prepare students for a wide range of careers in fields such as computer forensics, information security, and systems administration. As cybersecurity job growth in Virginia continues to trend upwards, the certificate will enable students to be a part of this trend and remain competitive as the region's economy continues to evolve.

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Program of Study

First Year Fall

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 101 - Introduction Network Concepts

3 Credits

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity.
Lecture Hours 3
Note Typically Offered: Fall

ITN 171 - Unix 1

3 Credits

Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell.
Lecture Hours 3
Note Typically Offered: Fall

ITN 257 - Cloud Computing: Infrastructure and Services

3 Credits

Focuses on cloud infrastructure, deployment, security models, and the key considerations in migrating to cloud computing. Covers the technologies and processes required to build traditional, virtualized, and cloud data center environments, including computation, storage, networking, desktop and application virtualization, business continuity, security, and management.
Lecture Hours 3
Note Typically Offered: Fall

Eligible For Comptia Network+ And Security+ Certifications, AWS Cloud Practitioner Certification

First Year Spring

ITN 260 - Network Security Basics

3 Credits

Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Fall

ITN 112 - Network Infrastructure (PAN)

3 Credits

Covers planning, installation, configuration, administration, management, maintenance, monitoring, and troubleshooting of network infrastructure components.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

ITP 150 - Python Programming

3 Credits

Entails instruction in fundamentals of object-oriented programming using Python. Emphasizes program construction, algorithm development, coding, debugging, and documentation of Python applications.
Lecture Hours 3
Note Typically Offered: Spring

ITN 261 - Network Attacks, Computer Crime and Hacking

3 Credits

Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS) malicious code, computer crime and industrial espionage.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

ITN 262 - Network Communication, Security, and Authentication

3 Credits

Covers an in-depth exploration of various communication protocols with a concentration on TCP/IP. Explores communication protocols from the point of view of the hacker in order to highlight protocol weaknesses. Includes Internet architecture, routing, addressing, topology, fragmentation and protocol analysis, and the use of various utilities to explore TCP/IP.
Corequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Spring

Eligible For Ec-council Certified Ethical Hacker (CEH) Certification

Eligible To Take The Work Ethic Proficiency Certification

Total Program Credits: 27

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Help Desk Support, CSC

Purpose

The Help Desk Support Career Studies Certificate prepares students to fill entry-level information technology positions which require the employee to provide technical assistance and support related to computer systems, software, and hardware in person, over the web, and/or over the phone.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Perform help desk functions to address end-user needs.
2. Use proper computer system and networking terminology. Install, configure, and deploy desktop operating systems.
3. Troubleshoot/debug, maintain, repair and upgrade client desktop systems.
4. Use proper help desk support principles and practices while interacting with customers.
5. Document actions taken to resolve customer problems and or issues.
6. Use computer systems and networks in a responsible and ethical manner.
7. Work as an effective member of a work group.

Employment Opportunities

Opportunities for employment in the immediate area and throughout the nation abound for students trained in computers. Students who complete the certificate will be qualified to work as Help Desk Technicians in a variety of businesses and organizations.

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Program of Study

First Year

ITE 140 - Spreadsheeting for Business

3 Credits

Provides a working knowledge of a commercial spreadsheet package to include design and development of a variety of worksheets, preparing graphs, working with database queries, macro writing, menu techniques, and decision analysis tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 110 - Client Operating Systems (XP Pro)

3 Credits

Covers installation, configuration, administration, management, maintenance, and troubleshooting of the desktop client operating system in a networked environment.
Lecture Hours 3
Note Typically Offered: Spring

ITN 171 - Unix 1

3 Credits

Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell.
Lecture Hours 3
Note Typically Offered: Fall

ITE 150 - Desktop Database Software

3 Credits

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels.
Lecture Hours 3
Note Typically Offered: Fall

ITN 101 - Introduction Network Concepts

3 Credits

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity.
Lecture Hours 3
Note Typically Offered: Fall

- BUS 106 - Security Awareness for Managers **3 Credits**

ITN 107 - Personal Computer Hardware and Troubleshooting

3 Credits

Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations. Includes the installation of various peripheral devices as well as basic system hardware components.
Lecture Hours 3
Note Typically Offered: Spring

- ITE 182 - User Support/Help Desk Principles **3 Credits**

Total Program Credits: 24

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Smart Farming I, CSC

Purpose

The Smart Farming Career studies I is designed to improve the regions agriculture productivity by introducing agricultural producers to IoT technologies, such as drones and remote sensors, and by training them to better understand the environmental factors that influence plant growth and soil fertility.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Demonstrate a working knowledge of applicable regulations relating to small unmanned aircraft system rating privileges, limitations, and flight operations
2. Identify requirements for small UAS registration, markings, and condition
3. Explain the United States airspace classification, operating requirements, and flight restrictions affecting small unmanned aircraft operation
4. Identify procedures for requesting a waiver for eligible requirements in sUAS
5. Demonstrate the ability to distinguish between aviation weather sources and effects of weather on small unmanned aircraft performance
6. Explain small unmanned aircraft loading
7. Demonstrate a working knowledge of emergency procedures
8. Define and apply crew resource management
9. Understand radio communication procedures
10. Determine the performance of small unmanned aircraft
11. Explain the FAA aeromedical factors
12. Define and apply aeronautical decision making and judgment
13. Explain airport operations
14. Demonstrate the ability to self-certify themselves and others as sUAS pilot and crew members
15. Demonstrate a working knowledge of maintenance and preflight inspection procedures
16. Demonstrate the ability to record and report required FAA documents pertinent to accidents, maintenance, flight paths, and other situations as required
17. List the elements that make up small Unmanned Aircraft Systems and discuss the functionality of each
18. Demonstrate knowledge of small Unmanned Aircraft Systems design and payloads
19. Perform basic maintenance on small Unmanned Aircraft Systems
20. Design strategies and risk assessments for sUAS missions
21. Identify and enumerate factors that affect flight plans/missions
22. Plan and perform manual and autonomous flights of small Unmanned Aircraft Systems
23. Demonstrate a working knowledge of the types of sUAS products and sensors
24. Plan and carry out sUAS data processing workflows
25. Select the proper sUAS-based Geospatial Mapping System for a particular mission
26. Choose an appropriate geospatial application for sUAS data processing
27. Use software to create mapping products such as orthomosaics and digital elevation models
28. Demonstrate a knowledge of sUAS safety, cyber-security and privacy issues
29. Obtain a Part 107 Remote Pilot Certification

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Program of Study

First Year

UMS 107 - Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School

3 Credits

Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate.
Note Typically Offered: Fall

UMS 111 - Small Unmanned Aircraft Systems (sUAS) I

3 Credits

Introduces students to the history of small Unmanned Aerial Systems (sUAS), surveys current platforms, applications, components, and sensors. Covers the theory of flight, operations, manual flight, maintenance, and required record keeping. Introduces mission planning, crew management, and autonomous control. Emphasizes the ethical, legal, and safe use of sUAS.
Note Typically Offered: Fall/Spring

ENV 235 - Soil Conservat & Spoils Mgmt

3 Credits

Teaches principles of soil conservation, erosion and sediment processes, spoils placement, both mechanical and natural methods of stabilization, and impacts of not practicing prudent soil conservation methods.
Lecture Hours 3
Note Typically Offered: Fall

SCT 111 - Introduction to Environmental & Science Technology I

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural

phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part I of II. Must be taken in sequence.
Lecture Hours 3
Lab hours 3
Note Typically Offered: Fall

AGR 205 - Soil Fertility and Management

3 Credits

Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies.
Lecture Hours 2
Lab hours 2

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Total Program Credits: 17

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Smart Farming II, CSC

Purpose

The Smart Farming Career Studies II is designed to further improve the region's agricultural productivity by preparing agricultural producers to implement the use of drones, robots, and/or remote sensors. Enabling them to obtain data for better controlling crop growth, preventing losses caused by adverse weather conditions or infectious pests and thus, facilitating the return on investments.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Professionally meet with prospective clients in order to present an overview of the services and outcomes that can be provided through aerial sensing.
2. Visit prospective client's locations and evaluate the site for mission readiness, fly-ability, and safety.
3. Determine the proper sUAS aircraft and sensor payload to efficiently collect the data needed to provide the client with the desired outcome.
4. Determine the proper mission parameters to use to collect the data such as, flight altitude, speed, forward and side overlap, data storage media, etc.
5. Properly load, balance, and configure sUAS sensor packages and other payloads to carry out the mission.
6. Test sensor packages and other payloads for mission readiness.
7. Practice, perform, and document all preflight Remote Pilot due diligences.
8. Program the mission into the sUAS if mission is to be performed autonomously or if not simulate the mission mentally.
9. Perform preflight inspection procedures to assure airworthiness of sUAS and readiness of sensor packages before the mission.
10. Brief the crew, if any, on their responsibilities and duties before the mission and use checklists as often as possible to avoid mistakes.
11. Properly perform FAA required recording and reporting pertinent to maintenance, flight paths, accidents, and other situations as required.
12. Perform post mission inspections, maintenance, and safe storage procedures on all mission equipment and collected data.
13. Process the collected data to produce the client's desired outcome/s.
14. Deliver and review the mission outcomes with the client.
15. Plan a data collection mission, equip the drone to carry out the mission, fly the mission and acquire data, process the data, and develop a plan of action based on the results of the processed data.
16. Learn to ground truth the assumptions that you made developing the plan of action.
17. Set up and prepare an agricultural drone for soil/plant health intervention missions.
18. Plan and carry out a waypoint based mission to apply fertilize/pesticide/herbicide/seed to a field.
19. Plan and carry out an A-B point mission to apply fertilize/pesticide/herbicide to a field.
20. Plan and carry out a pre-mapped mission to apply fertilize/pesticide/herbicide/seed to a field.
21. Perform post mission inspections, maintenance, and safe storage procedures on all mission equipment and collected data.
22. Practice collecting data, processing data, developing action plans, and performing corrective/interactive missions on various row and field crops.
23. Attempt to accurately predict the yield of crops from data collect mid-growing season and near end growing season.
24. Practice fixed wing flight for missions that require large field (100's of acres) data acquisition.

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Program of Study

First Year

UMS 290 - Coordinated Internship in sUAS

3 Credits

In order to apply basic UAV data collection and processing theory to the actual job site, this cooperative venture will allow students to conduct actual UAV data collection missions, to process RGB, multispectral, and thermal data, and to provide an end product to the customer.
Note Typically Offered: Spring

UMS 296 - On-Site Training in Unmanned Systems

3 Credits

Actual job site training on applying intermediate and advanced UAV mission planning, execution, recovery, data collection, processing, and documentation techniques to fulfill varied customer needs and requirements supervised and coordinated by the college.
Note Typically Offered: Spring

GIS 200 - Geographical Information Systems I

3 Credits

Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making.
Lecture Hours 2
Lab hours 2
Note Typically Offered: Fall/Spring

SCT 112 - Introduction to Environmental and Science Technology II

4 Credits

Introduces the basic sciences which describe our physical environment. Includes the fundamentals of geology, meteorology, physics, chemistry, and biology. Describes basic scientific principles and relates them to natural phenomena and the activities of man. Emphasizes field experiences including techniques and data gathering. Part II of

II. Must be taken in sequence.
Prerequisite SCT 111
Lecture Hours 3
Lab hours 3
Note Typically Offered: Spring

HRT 137 - Environmental Factors in Plant Growth

3 Credits

Explores environmental factors which affect plant growth, including rainfall, humidity, wind, temperature, sunlight, irrigation, heating, and shading. Examines methods of inducing and breeding dormancy, lighting, and shading systems, and the relationship between day length and flowering.
Lecture Hours 3
Note Typically Offered: Fall/Spring

AGR 208 - Insect Control

3 Credits

Examines principles and current trends in insect control. Studies biology and identification of economically important insects and related pests.
Lecture Hours 2
Lab hours 2

Total Program Credits: 19

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

[1]*UMS 296 must be taken in the summer semester due to matching the course content to the region's growing cycle.*

Software Development I, CSC

Purpose

The Software Development I Career Studies Certificate is designed to prepare students to enter the workforce as software developers who can create and test business-oriented software applications. The curriculum includes general and specialized computer courses focusing on programming and database applications. This certificate includes both classroom and lab instruction.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Write application software that makes efficient and secure use of operating system services.
2. Analyze a problem and identify the appropriate data, hardware components and/or software requirements to develop a feasible solution.
3. Use current tools and practices that support the software documentation process.
4. Document system requirements and/or develop materials for clients in the proper use of hardware or software.
5. Work cooperatively and effectively in teams to accomplish a shared goal.
6. Analyze local and global information technology (IT) trends, while recognizing the influences of IT on cultural, economic, ethical, and legal issues and responsibilities.
7. Use logical and mathematical reasoning to analyze, organize, and interpret data.

Employment Opportunities

Job opportunities in the immediate area and throughout the nation abound for students trained in computers. According to the Bureau of Labor Statistics' website, employment of software developers is projected to grow 24% from 2016 to 2026, which is much faster than the average for all occupations. Software developers will be needed to respond to an increased demand for computer software.

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Program of Study

First Year Fall

ITP 100 - Software Design

3 Credits

Introduces principles and practices of software development. Includes instruction in critical thinking, problem solving skills, and essential programming logic in structured and object-oriented design using contemporary tools.
Lecture Hours 3
Note Typically Offered: Spring

ITN 101 - Introduction Network Concepts

3 Credits

Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity.
Lecture Hours 3
Note Typically Offered: Fall

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

3 Credits

Develops understanding of digital and information literacy. Introduces basic computer concepts in hardware, software, cyber, cloud, database, and operating systems. Includes hands-on experience developing word processing, spreadsheet and presentation documents. Evaluates the reliability of sources. Covers creating a simple web page. Examines topics such as social, legal, and ethical issues. This is a UCGS transfer course.
Lecture Hours 3
Note Typically Offered: Fall/Spring/Summer

ITN 170 - Linux System Administration

3 Credits

Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation.
Lecture Hours 3
Lab hours 0
Note Typically Offered: Fall

ITN 257 - Cloud Computing: Infrastructure and Services

3 Credits

Focuses on cloud infrastructure, deployment, security models, and the key considerations in migrating to cloud computing. Covers the technologies and processes required to build traditional, virtualized, and cloud data center environments, including computation, storage, networking, desktop and application virtualization, business continuity, security, and management.
Lecture Hours 3
Note Typically Offered: Fall

SDV 101 - Orientation to

1 Credits

Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline.
Lecture Hours 1
Lab hours 0
Note Typically Offered: Fall/Spring/Summer

Eligible For Comptia Network+ And Security+ Certifications, AWS Cloud Practitioner Certification

Eligible For The Software Development I Career Studies Certificate

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Software Development II, CSC

Purpose

The Software Development II Career Studies Certificate is designed to prepare students to enter the workforce as software developers who can create and test business-oriented software applications. The curriculum includes general and specialized computer courses focusing on programming and database applications. This certificate includes both classroom and lab instruction.

Program Learning Outcomes

Upon successful completion, students will be able to:

1. Write application software that makes efficient and secure use of operating system services.
2. Develop an information system using accepted software development processes.
3. Produce user applications using a specialized technology that builds upon fundamental software development practices.
4. Analyze a problem and identify the appropriate data, hardware components and/or software requirements to develop a feasible solution.
5. Use current tools and practices that support the software documentation process
6. ADocument system requirements and/or develop materials for clients in the proper use of hardware or software.

Employment Opportunities

Job opportunities in the immediate area and throughout the nation abound for students trained in computers. According to the Bureau of Labor Statistics' website, employment of software developers is projected to grow 24% from 2016 to 2026, which is much faster than the average for all occupations. Software developers will be needed to respond to an increased demand for computer software.

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Program of Study

First Year Spring

ITN 260 - Network Security Basics

3 Credits

Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality integrity, availability, accountability and auditability.
Prerequisite ITN 101 or ITN 154
Lecture Hours 3
Note Typically Offered: Fall

ITD 110 - Web Page Design I

3 Credits

Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames.
Lecture Hours 3
Note Typically Offered: Fall/Summer

ITE 131 - Survey of Internet Services

1 Credits

Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp telnet, and other services.
Lecture Hours 1
Note Typically Offered: Fall/Spring/Summer

ITE 150 - Desktop Database Software

3 Credits

Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Includes database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, creating mailing labels.
Lecture Hours 3
Note Typically Offered: Fall

ITP 150 - Python Programming

3 Credits

Entails instruction in fundamentals of object-oriented programming using Python. Emphasizes program construction, algorithm development, coding, debugging, and documentation of Python applications.

Lecture Hours 3
Note Typically Offered: Spring

ITP 140 - Client Side Scripting

3 Credits

Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s).
Lecture Hours 3
Note Typically Offered: Spring

Eligible For IC3 Certification And Microsoft MOS Certification

Eligible For The Software Development II Career Studies Certificate

Total Program Credits: 16

Notes and Additional Curriculum Options

Course substitutions may be available. Please see an advisor for more information.

Course Descriptions

Course Numbers

Courses numbered 1-9 are Developmental courses. The credits earned in these courses are not applicable toward associate degree programs. Courses numbered 10-99 are applicable toward certificate programs but are not applicable toward an associate degree. Courses numbered 100-199 are freshman courses which may be applicable toward an associate degree or certificate program. Courses numbered 200-299 are sophomore courses which may be applicable toward an associate degree or certificate program.

Course Credits

The credit for each course must be indicated after the title in the course description. One credit is equivalent to one collegiate semester-hour credit. Each semester hour of credit given for a course is based on the "academic hour," which is 50 minutes of formalized, structured instructional time in a particular course weekly for fifteen weeks. This is a total of 750 minutes of instruction. In addition to this instructional time, appropriate evaluation will be required. If this evaluation is a final examination, a minimum of 50 minutes of evaluation time shall be scheduled for each course, not to exceed a total of 150 minutes per course. Any exception must have prior approval by the requestor's Chief Academic Officer or designee. Credits may be assigned to the activities as follows:

- Lecture – One academic hour of lecture (including lecture, seminar, discussion, or other similar activities) per week, generally for 15 weeks, plus the evaluation or examination period, equals one collegiate semester-hour credit.
- Laboratory – Two to five academic hours, depending on the discipline, of laboratory, clinical training, supervised work experience, coordinated internship, or other similar activities per week, generally for 15 weeks, plus the evaluation or examination period, equals one collegiate semester-hour credit.
- Asynchronous Distance Learning Courses – In the case of asynchronous distance learning course offerings or hybrid courses that employ a mix of traditional contact hours and learning activities with students and faculty separated by time and place, colleges must demonstrate through faculty peer review that content and competency coverage and student outcomes are equivalent to those of traditional sections of the same class. In the event the only section of the course being taught in the VCCS is an asynchronous or hybrid course, faculty peer review will be employed to confirm that content and competency coverage and student outcomes are appropriate for the course credits awarded.
- General Usage Courses – Variable academic hours from one to five credits for general usage courses.
- Variable Credits – A college may request that a course vary from the existing credit value, but by no more than one credit. Existing variable credit ranges may not be extended. Credit variability will not be approved for purposes of deleting laboratory hours or of making laboratory hours optional.

Course Hours

The number of lecture hours in class each week (including lecture, seminar, discussion, and other similar activities) and/or the number of laboratory, supervised study, coordinated internship, and other similar activities are indicated for each course in the course description. The numbers of lecture and laboratory hours required each week are called "contact" hours. Distance learning courses must include the same content and deliver the same student outcomes as do the same courses taught in the classroom. Although contact hours for distance learning courses may not refer to seat time, they do still indicate the amount of course time devoted to lecture and laboratory instruction.

Course Prerequisites and Co-requisites

If any prerequisites are required before enrolling in a course, these prerequisites will be identified in the course description. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course. Courses in special sequences (usually identified by the numerals I-II) require that prior courses or their equivalent be completed before enrolling in the advanced courses in the sequence unless otherwise specified. When co-requisites are required for a course, usually the co-requisite must be taken at the same time. Students who register for a class without meeting prerequisites may be dropped from the class during the first two weeks of classes.

Reading and Writing Level Requisites

Table E: Student English Course Placement

If a student has...	**The student may enroll in…**
6 or more years since high school graduation	Informed Self-Placement (See Advisor)
High School Grade Point Average (HS GPA) for English Placement*	
Less than 2.0 HS GPA	EDE 10
2.0 to 2.99 HS GPA	EDE 11 + ENG 111 ENG 115
3.0+ HS GPA	ENG 111 ENG 115
Course	**Minimum Placement Requirement****
EDE 10	1.99 or lower HS GPA
EDE 11 + ENG 111	2.0 to 2.99 HS GPA
ENG 111	3.0+ HS GPA
ENG 115	2.0+ HS GPA
SAT/ACT/GED Scores for English Placement***	

Test	**Student Score**	**The student may enroll in…**
SAT-ERW Evidence Based Reading & Writing	480 or above	ENG 111
	400-470	ENG 111 + EDE 11

ACT Subject Area Tests: English & Reading	18 or above	ENG 111
	15-17	ENG 111 + EDE 11
	14 and below	EDE 10
GED English	165 or above	ENG 111
*High School Grade Point Average (HS GPA) is valid for five (5) years after the date of high school graduation. Students who completed high school six (6) or more years ago will be enrolled based on self-informed placement.		
**Minimum placement requirements apply to students who completed high school five (5) or less years ago.		
***SAT, ACT, and GED scores are valid for five (5) years after the date of the test.		

General Usage Courses

90, 190 & 290 Coordinated Practice (1-5 CR.)
Includes supervised practice in selected health agencies coordinated by the College. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

90, 190, & 290 Coordinated Internship (1-5 CR.)
Supervises on-the-job training in selected business, industrial, or service firms coordinated by the College. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

95, 195, & 295 Topics in (1-5 CR.)
Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

96, 196, & 296 On-Site Training (1-5 CR.)
Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the College. Credit/Work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

97, 197 & 297 Cooperative Education (1-5 CR.)
Supervises in on-the-job training for pay in approved business, industrial and service firms coordinated by the College's cooperative education office. Is applicable to all occupational-technical curricula at the discretion of the College. Credit/Work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

98, 198 & 298 Seminar and Project (1-5 CR.)
Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

Table M: Student Math Course Placement

If a student has. . .	**The student may enroll in. . .**
6+ years since high school graduation	Informed Self-Placement (See Advisor)
High School Grade Point Average (HS GPA) for Math Placement*	

Less than 2.0 HS GPA	MDE 10
2.0-2.99 HS GPA without HS Algebra 2*	MTH 111 MTH 132 MTH 133 MTH 154 + MDE 54 MTH 155 + MDE 55 MDE 60
2.0-2.99 HS GPA with HS Algebra 2*	MTH 111 MTH 132 MTH 133 MTH 154 + MDE 54 MTH 155 + MDE 55 MTH 161 + MDE 61
3.0+ HS GPA without HS Algebra 2*	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MDE 60
3.0+ HS GPA with HS Algebra 2*	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MTH 161
2.7+ HS GPA with a grade of C or better in Math Analysis/Pre-Calculus without trigonometry*	MTH 261
2.7+ HS GPA with a grade of B or better in Math Analysis/Pre-Calculus with trigonometry*	MTH 263
**High school GPA is valid for five (5) years after the date of high school graduation*	

Course	**Minimum Placement Requirement****
MDE 10	1.99 or lower HS GPA
MDE 60	2.0+ HS GPA without HS Algebra 2
MTH 111	2.0+ HS GPA without HS Algebra 2
MTH 132	2.0+ HS GPA without HS Algebra 2

MTH 133	2.0+ HS GPA without HS Algebra 2
MTH 154 + MDE 54	2.0 – 2.99 HS GPA with HS Algebra 2
MTH 154	3.0+ HS GPA without HS Algebra 2
MTH 155 + MDE 55	2.0 – 2.99 HS GPA with HS Algebra 2
MTH 155	3.0+ HS GPA without HS Algebra 2
MTH 161 + MDE 61	2.0 – 2.99 HS GPA with HS Algebra 2
MTH 161	3.0+ HS GPA with HS Algebra 2
MTH 261	2.7+ HS GPA with a grade of C or better in Math Analysis/Pre-Calculus without trigonometry*
MTH 263	2.7+ HS GPA with a grade of B or better in Math Analysis/Pre-Calculus with trigonometry*
**Minimum placement requirements noted above apply to student who completed high school five or less years ago. High school GPA (HSGPA) is valid for five (5) years after the date of high school graduation. Students who completed high school 6 or more years ago may be placed through informed self-placement.	

SAT/ACT/GED Scores for Math Placement*		
SAT – Math	500 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MDE 161
	470-490 range	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MDE 161 +MDE 61
ACT – Subject Area Test Math	18 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MDE 161
	17	MTH 111 MTH 132 MTH 133 MTH 154

		MTH 155 MDE 161 +MDE 61
GED – Math	165 or above	MTH 111 MTH 132 MTH 133 MTH 154 MTH 155 MDE 161 +MDE 61
	155-164 range	MTH 111 MTH 132 MTH 133 MTH 154 + MDE 54 MTH 155 + MDE 55 MDE 60
	154 or below	MDE 10
****SAT, ACT and GED Test scores are valid for five (5) years after the date of the test.*		

Accounting

ACC 110 - Introduction to Computerized Accounting

ACC 111 - Accounting I

ACC 112 - Accounting II

ACC 115 - Applied Accounting

ACC 134 - Small Business Taxes

ACC 211 - Principles of Accounting I

ACC 212 - Principles of Accounting II

ACC 215 - Computerized Accounting

Administration of Justice

ADJ 100 - Survey of Criminal Justice

ADJ 105 - The Juvenile Justice System

ADJ 107 - Survey of Criminology

ADJ 111 - Law Enfor Org & Adm I

ADJ 112 - Law Enforcement Organization & Administration II

ADJ 127 - Firearms and Marksmanship

ADJ 130 - Introduction to Criminal Law

ADJ 131 - Legal Evidence

ADJ 133 - Ethics and the Criminal Justice Professional

ADJ 138 - Defensive Tactics

ADJ 140 - Introduction to Corrections

ADJ 146 - Adult Correctional Institution

ADJ 152 - Unarmed Security Officers - Duties and Responsibilities

ADJ 153 - Armed Security Officers - Duties and Responsibilities

ADJ 171 - Forensic Science I

ADJ 172 - Forensic Science II

ADJ 195 - Concealed Weapons Permit

ADJ 198 - Sem & Proj Criminal Justice

ADJ 227 - Constitutional Law for Justice Personnel

ADJ 236 - Principles of Criminal Investigation

ADJ 241 - Correctional Law

ADJ 245 - Management of Correctional Facility

ADJ 246 - Correctional Counseling

ADJ 296 - On Site Training in ADJ

Administrative Support Technology

AST 101 - Keyboarding I

AST 102 - Keyboarding II

AST 107 - Editing/Proofreading Skills

AST 137 - Records Management

AST 141 - Word Processing I

AST 193 - Studies in Excel for Healthcare Professionals

AST 205 - Business Communications

AST 215 - Medical Keyboarding

AST 236 - Specialized Software Applications

AST 243 - Office Administration I

AST 244 - Office Administration II

AST 265 - Legal Office Procedures I

AST 271 - Medical Office Procedures I

AST 290 - Coordinated Internship

Agriculture

AGR 142 - Introduction to Plant Science and Technology

AGR 143 - Introduction to Agribusiness and Financial Management

AGR 205 - Soil Fertility and Management

AGR 208 - Insect Control

AGR 231 - Agribusiness Marketing, Risk Management, and Entrepreneurship

AGR 233 - Food Production, Safety, Biosecurity, and Quality Control

AGR 234 - Chemical Application and Pest Management

AGR 295 - Grain Terminal Storage and Operations

Air Conditioning and Refrigeration

AIR 111 - Air Condition & Refrigeration Controls I

AIR 112 - Air Condition & Refrigeration II

AIR 116 - Duct Construction and Maintenance

AIR 121 - Air Conditioning and Refrigeration I

AIR 154 - Heating Systems I

AIR 205 - Hydronics and Zoning

AIR 210 - Air Conditioning and Refrigeration Analysis

AIR 281 - Energy Management I

AIR 282 - Energy Management II

American Sign Language

ASL 101 - Beginning American Sign Language I

ASL 102 - Beginning American Sign Language II

ASL 125 - History of the U. S. Deaf Community

ASL 201 - Intermediate American Sign Language I

Arabic

ARA 101 - Beginning Arabic I

Architecture

ARC 121 - Architectural Drafting I

Arts

ART 101 - History of Art: Prehistoric to Gothic

ART 102 - History of Art: Renaissance to Modern

ART 121 - Foundations of Drawing

ART 125 - Introduction to Painting

ART 180 - Introduction to Computer Graphics

ART 203 - Animation I

ART 241 - Painting I

ART 242 - Painting II

Biology

BIO 101 - General Biology I

BIO 102 - General Biology II

BIO 106 - Life Sciences

BIO 141 - Human Anatomy & Physiology I

BIO 142 - Human Anatomy & Physiology II

BIO 145 - Basic Human Anatomy & Physiology

BIO 150 - Microbiology for Health Sciences

BIO 231 - Human Anatomy & Physiology I

BIO 232 - Human Anatomy & Physiology II

Building

BLD 105 - Shop Practices & Procedures

BLD 110 - Introduction to Construction

Business Administration and Management

BUS 100 - Introduction to Business

BUS 111 - Principles of Supervision I

BUS 116 - Entrepreneurship

BUS 117 - Leadership Development

BUS 149 - Workplace Ethics

BUS 165 - Small Business Management

BUS 200 - Principles of Management

BUS 202 - Applied Management Principles

BUS 204 - Project Management

BUS 205 - Human Resource Management

BUS 224 - Business Statistics

BUS 227 - Business Analytics

BUS 236 - Communication in Management

BUS 241 - Business Law I

BUS 242 - Business Law II

BUS 285 - Current Issues in Management

BUS 290 - Coordinated Internship

Chemistry

CHM 5 - Developmental Chemistry for the Health Sciences

CHM 101 - Introductory Chemistry

CHM 111 - General Chemistry I

CHM 112 - General Chemistry II

CHM 241 - Organic Chemistry I

CHM 242 - Organic Chemisty II

CHM 245 - Organic Chemistry I Laboratory

CHM 246 - Organic Chemistry II Laboratory

Child Development

CHD 120 - Introduction to Early Childhood Education

CHD 145 - Teaching Art, Music, and Movement to Children

CHD 164 - Working with Infants and Toddlers in Inclusive Settings

CHD 165 - Observation & Participation in Early Childhood/Primary Settings

CHD 166 - Infant and Toddler Programs

CHD 205 - Guiding the Behavior of Children

CHD 210 - Introduction to Exceptional Children

CHD 290 - Coordinated Internship in Early Childhood Special Needs Program

Chinese

CHI 101 - Beginning Chinese I

CHI 102 - Beginning Chinese II

Civil Engineering Technology

CIV 171 - Surveying I

CIV 172 - Surveying II

CIV 240 - Fluid Mechanics and Hydraulics

CIV 246 - Water Resource Technology

Communication Studies and Theater

CST 100 - Principles of Public Speaking

CST 110 - Introduction to Human Communication

CST 130 - Introduction to the Theatre

CST 131 - Acting I

CST 132 - Acting II

CST 141 - Theatre Appreciation I

CST 151 - Film Appreciation I

CST 229 - Intercultural Communication

Dental Assistant

DNA 103 - Introduction to Oral Health

DNA 108 - Dental Science I

DNA 109 - Practical Infection Control

DNA 110 - Dental Materials

DNA 113 - Chairside Assisting I

DNA 114 - Chairside Assisting II

DNA 120 - Community Health

DNA 130 - Dental Office Management

DNA 135 - Dental Radiation Safety

DNA 140 - Dental Externship

DNA 190 - Coordinated Internship in Dental Assistant

Drafting

DRF 151 - Engineering Drawing Fundamentals I

DRF 152 - Engineering Drawing Fundamentals II

DRF 160 - Machine Blueprint Reading

DRF 195 - Engineering Design I

DRF 200 - Survey Computer Aided Drafting

DRF 201 - Computer Aided Drafting & Design I

DRF 231 - Computer Aided Drafting I

DRF 232 - Computer Aided Drafting II

DRF 233 - Computer Aided Drafting III

DRF 290 - Coordinated Internship in Drafting

DRF 298 - Seminar & Project in Drafting

Economics

ECO 120 - Survey of Economics

ECO 150 - Economics Essentials: Theory and Application

ECO 201 - Principles of Macroeconomics

ECO 202 - Principles of Microeconomics

Education

EDU 200 - Foundations of Education

EDU 204 - Teaching in a Diverse Society

EDU 250 - Foundations of Exceptional Education

EDU 270 - Introduction to Autism Spectrum Disorders

EDU 271 - Methodologies and Curriculum Development for Children with Autism Spectrum Disorders

EDU 280 - Introduction to Instructional Technologies

EDU 287 - Instructional Design for Online Learning

Electrical Technology

ELE 110 - Home Electric Power

ELE 131 - National Electrical Code I

ELE 132 - National Electrical Code II

ELE 140 - Basic Electricity & Machinery

ELE 148 - Power Distribution Systems

ELE 156 - Electrical Control Systems

ELE 177 - Photovoltaic Energy Systems

ELE 239 - Programmable Controllers

ELE 290 - Coordinated Internship in ELE

Electronics Technology

ETR 143 - Devices and Applications I

ETR 177 - Industrial Robotics and Robotics Programming

ETR 218 - Industrial Electronics Circuit

Emergency Medical Services Technology

EMS 100 - CPR for Healthcare Providers

EMS 111 - Emergency Medical Technician-Basic

EMS 112 - Emergency Medical Technician -Basic I

EMS 113 - Emergency Medical Technician - Basic II

EMS 120 - Emergency Medical Technician Basic - Clinical

EMS 121 - Preparatory Foundations

EMS 123 - EMS Clinical Preparation

EMS 125 - Basic Pharmacology

EMS 126 - Basic Pharmacology Lab

EMS 127 - Airway, Shock, and Resuscitation

EMS 128 - Airway, Shock, and Resuscitation Lab

EMS 135 - Emergency Medical Care

EMS 136 - Emergency Med Care Lab

EMS 137 - Trauma Care

EMS 138 - Trauma Care Lab

EMS 139 - Special Populations

EMS 140 - Special Populations Lab

EMS 141 - Cardiovascular Care

EMS 142 - Cardiovascular Care Lab

EMS 163 - Prehospital Trauma Life Support (PHTLS)

EMS 164 - Advanced Medical Life Support

EMS 165 - Advanced Cardiac Life Support - ACLS

EMS 167 - Emergency Pediatric Care (EPC)

EMS 170 - ALS Internship I

EMS 175 - Paramedic Clinic Experience I

EMS 180 - Advanced EMS Foundations

EMS 181 - Advanced Airway and Shock Management

EMS 182 - Advanced Airway and Shock Management Laboratory

EMS 183 - Advanced Medical Care

EMS 184 - Advanced Medical Care Laboratory

EMS 185 - Advanced Trauma Care

EMS 186 - Advanced Trauma Care Laboratory

EMS 195 - Topics in Emergency Medical Services

EMS 202 - Paramedic Pharmacology

EMS 203 - Advanced Patient Care

EMS 204 - Advanced Patient Care Lab

EMS 206 - Pathophysiology for Health Professionals

EMS 210 - EMS Operations

EMS 212 - Leadership and Professional Development

EMS 216 - Paramedic Review

EMS 221 - Paramedic Cardiovascular Care

EMS 222 - Paramedic Cardiovascular Care Laboratory

EMS 223 - Paramedic Patient Care I

EMS 224 - Paramedic Patient Care I Laboratory

EMS 225 - Paramedic Patient Care II

EMS 226 - Paramedic Patient Care Laboratory II

EMS 241 - Paramedic Internship I

EMS 246 - Paramedic Internship II

EMS 247 - Paramedic Clinical Experience II

EMS 248 - Paramedic Comprehensive Field Experience

EMS 249 - Paramedic Capstone Internship

Engineering

EGR 121 - Foundations of Engineering

EGR 122 - Engineering Design

EGR 125 - Introduction to Computer Programming for Engineers

EGR 126 - Computer Programming for Engineers

EGR 127 - Introduction to Computer Programming

EGR 140 - Engineering Mechanics Statics

EGR 206 - Engineering Economics

EGR 240 - Statics

EGR 245 - Dynamics

EGR 246 - Mechanics of Materials

EGR 251 - Basic Electric Circuits I

EGR 255 - Electric Circuits Laboratory

EGR 261 - Signals and Systems

EGR 263 - Signals and Systems Laboratory

EGR 270 - Fundamentals of Computer Engineering

EGR 271 - Electric Circuits I

Energy

ENE 105 - Solar Thermal Active/Passive

ENE 110 - Solar Power Installations

ENE 230 - Geothermal Applications

English

EDE 10 - English Composition Preparation

EDE 11 - English Composition Readiness

ENG 111 - College Composition I

ENG 112 - College Composition II

ENG 113 - Technical Professional Writing

ENG 115 - Technical Writing

ENG 211 - Creative Writing I

ENG 212 - Creative Writing II

ENG 245 - British Literature

ENG 246 - American Literature

ENG 250 - Children's Literature

ENG 253 - Survey of African-American Literature I

ENG 255 - World Literature

Environmental Science

ENV 108 - Environmental Microbiology

ENV 110 - Intro Waste/Water Trmt Tech

ENV 115 - Water Purification

ENV 121 - General Environmental Science I

ENV 122 - General Environmental Science II

ENV 148 - Math Water/Wastewater Oper

ENV 149 - Wastewater Treatment Plant Ope

ENV 211 - Sanitary Biology & Chemistry I

ENV 220 - Environmental Problems

ENV 227 - Environmental Law

ENV 230 - GIS Apps in Environmental Sci

ENV 235 - Soil Conservat & Spoils Mgmt

ENV 290 - Coordinated Internship

ENV 298 - Sem & Proj: FOR/ENV Science

Forestry

FOR 100 - Introduction to Forestry

FOR 115 - Dendrology

FOR 201 - Forest Mensuration I

FOR 215 - Applied Silviculture

FOR 237 - Wildlife Ecology

FOR 245 - Forest Products I

FOR 290 - Coordinated Internship Forstry

French

FRE 101 - Beginning French I

FRE 102 - Beginning French II

Geographical Information Systems

GIS 200 - Geographical Information Systems I

GIS 201 - Geog Info Systems II

GIS 205 - GIS 3 Dimensional Analysis

GIS 210 - Understanding Geographic Data

Geography

GEO 210 - People and the Land: Intro to Cultural Geography

Geology

GOL 105 - Physical Geology

GOL 111 - Oceanography I

GOL 112 - Oceanography II

German

GER 101 - Beginning German I

GER 102 - Beginning German II

Health

HLT 100 - First Aid and CPR

HLT 105 - Cardiopulmonary Resuscitation

HLT 106 - First Aid and Safety

HLT 121 - Substance Abuse: Prevention and Treatment

HLT 125 - Anatomy and Physiology for Exercise Science

HLT 130 - Nutrition and Diet Therapy

HLT 135 - Child Health and Nutrition

HLT 138 - Principles of Nutrition

HLT 140 - Orientation to Health Related Professions

HLT 141 - Introduction to Medical Terminology

HLT 143 - Medical Terminology I

HLT 145 - Ethics for Health Care Personnel

HLT 156 - Healthcare for Athletic Injuries

HLT 190 - Coordinated Internship: Pharmacy Technician

HLT 250 - General Pharmacology

HLT 261 - Basic Pharmacy I

HLT 262 - Basic Pharmacy II

HLT 263 - Basic Pharmacy I Lab

Healthcare Technology

HCT 101 - Health Care Technician I

HCT 102 - Health Care Technician II

HCT 115 - Medication Administration Aide Training

Health Information Management

HIM 111 - Medical Terminology I

HIM 112 - Medical Terminology II

HIM 113 - Medical Terminology & Disease Process I

HIM 114 - Medical Terminology & Disease Process II

HIM 130 - Healthcare Information Systems

HIM 143 - Electronic Billing in Med Prac

HIM 149 - Introduction to Medical Practice Management

HIM 150 - Health Records Management

HIM 151 - Reimbursement Issues in Medical Practice Management

HIM 220 - Health Statistics

HIM 226 - Legal Aspects of Health Record Documentation

HIM 229 - Performance Improvement in Health Care Settings

HIM 230 - Information Systems & Technology in Health Care

HIM 233 - Electronic Health Records Management

HIM 249 - Supervision and Management Practices

HIM 251 - Clinical Practice I

HIM 253 - Health Records Coding

HIM 254 - Advanced Coding and Reimbursement

HIM 257 - Health Data Classification Systems III

HIM 260 - Pharmacology for Health Information Technoloyg

HIM 265 - Facility Based Medical Coding

HIM 290 - Coordinated Internship

HIM 295 - RHIT Test Prep

HIT 298 - Seminar & Project

Health Information Technology

HIT 130 - Introduction to Computers in Health Care

HIT 132 - Health-IT Infrastructure Development

HIT 193 - Studies In: Investigational Products and Device Regulation

HIT 195 - Topics in: Good Clinical Practice an Regulatory Compliance

HIT 229 - Performance Improvement and Data Usage in Health Care

HIT 230 - Computer Applications in Health Care

HIT 235 - Emerging Technologies in Health IT

HIT 290 - Coordinated Internship

HIT 299 - Supervised Study: Clinical Research Coordinator and Clinical Research Monitor Concepts

ITD 298 - Seminar & Project

History

HIS 101 - Western Civilizations Pre-1600 CE

HIS 102 - Western Civilizations Post-1600 CE

HIS 111 - World Civilizations Pre-1500CE

HIS 112 - World Civilization Post-1500CE

HIS 121 - United States History to 1877

HIS 122 - United States History Since 1865

HIS 195 - Appalachian History I

HIS 198 - Appalachian History II

HIS 205 - Local History

HIS 269 - Civil War and Reconstruction

HIS 270 - America in the Gilded Age

HIS 281 - History of Virginia I

Horticulture

HRT 137 - Environmental Factors in Plant Growth

Humanities

HUM 153 - Introduction to Appalachian Studies

HUM 202 - Modern Humanities

HUM 218 - Survey of Horror

HUM 220 - Introduction to African American Studies

HUM 256 - Comparative Mythology

HUM 259 - The Greek and Roman Tradition

HUM 260 - Contemporary Humanities

Industrial Engineering Technology

IND 101 - Quality Assurance Technology

IND 125 - Installation and Preventive Maintenance

IND 137 - Team Concepts & Problem Solving

IND 149 - Workplace Ethics

IND 190 - Coordinated Internship

Information Technology Database

ITD 110 - Web Page Design I

ITD 132 - Structured Query Language

ITD 136 - Database Management Software

ITD 256 - Advanced Database Management

Information Technology Essentials

ITE 102 - Computers and Information Systems

ITE 105 - Careers and Cyber Ethics

ITE 119 - Information Literacy

ITE 131 - Survey of Internet Services

ITE 140 - Spreadsheeting for Business

ITE 150 - Desktop Database Software

ITE 152 - Introduction to Digital and Information Literacy and Computer Applications

ITE 175 - Email Essentials

ITE 290 - Coordinated Internship

Information Technology Networking

ITN 101 - Introduction Network Concepts

ITN 107 - Personal Computer Hardware and Troubleshooting

ITN 110 - Client Operating Systems (XP Pro)

ITN 111 - Server Administration (Server 2022)

ITN 112 - Network Infrastructure (PAN)

ITN 113 - Active Directory (Server 2016)

ITN 154 - Introduction to Networks - CISCO

ITN 155 - Switching, Routing and Wireless Essentials - CISCO

ITN 156 - Enterprise Networking, Security, and Automation - CISCO

ITN 170 - Linux System Administration

ITN 171 - Unix 1

ITN 257 - Cloud Computing: Infrastructure and Services

ITN 260 - Network Security Basics

ITN 261 - Network Attacks, Computer Crime and Hacking

ITN 262 - Network Communication, Security, and Authentication

ITN 270 - Advanced Linux Network Administration

Information Technology Programming

ITP 100 - Software Design

ITP 132 - C++ Programming I

ITP 140 - Client Side Scripting

ITP 150 - Python Programming

ITP 170 - Project Management

ITP 225 - Web Scripting Languages

ITP 232 - C++ Programming II

ITP 298 - Capstone

Japanese

JPN 102 - Japanese II

Legal Administration

BUS 240 - Introduction to Business Law

LGL 110 - Law/Legal Asst

LGL 115 - Real Estate Law

LGL 117 - Family Law

LGL 120 - Legal Terminology

LGL 127 - Legal Research and Writing

LGL 195 - Topics in Paralegal Studies

LGL 200 - Ethics for the Paralegal

LGL 216 - Trial Preparation & Discovery Practice

LGL 218 - Criminal Law

LGL 221 - E-Practice

LGL 222 - Information Technology for the Paralegal

LGL 230 - Legal Transactions

LGL 290 - Coordinated Internship

Library

LBR 105 - Library Skills For Research

Marketing

MKT 100 - Principles of Marketing

MKT 170 - Customer Service

MKT 201 - Introduction to Marketing

MKT 284 - Social Media Marketing

Math Direct Enrollment

MDE 10 - Introduction to Algebra

MDE 54 - Learning Support for Quantitative Reasoning

MDE 55 - Learning Support for Statistical Reasoning

MDE 60 - Intermediate Algebra

MDE 61 - Learning Support for Pre-Calculus

Mathematics

MTH 106 - Survey of Technical Math II

MTH 111 - Basic Technical Mathematics

MTH 132 - Business Mathematics

MTH 133 - Math for Health Professions

MTH 154 - Quantitative Reasoning

MTH 155 - Statistical Reasoning

MTH 161 - Pre-Calculus I

MTH 162 - Pre-Calculus II

MTH 167 - PreCalculus with Trigonometry

MTH 245 - Statistics I

MTH 261 - Applied Calculus I

MTH 263 - Calculus I

MTH 264 - Calculus II

MTH 265 - Calculus III

MTH 266 - Linear Algebra

MTH 267 - Differential Equations

MTH 288 - Discrete Mathematics

Mechanical Engineering Technology

MEC 101 - Engin Tech I

MEC 113 - Mat/Proc Indus

MEC 122 - 3D Printing Engineering Design

MEC 154 - Mechanical Maintenance I

MEC 205 - Piping & Auxiliary Systems

MEC 265 - Fluid Mechanics

MEC 266 - Fluid Mechanic

Medical Laboratory

MDL 105 - Phlebotomy

MDL 106 - Clinical Phlebotomy

Music

MUS 112 - Music Theory II

MUS 121 - Music in Society

MUS 133 - Recording Systems Services I

MUS 139 - Shape Note Singing

MUS 150 - Old Time String Band

MUS 163 - Guitar Theory and Practice I

MUS 164 - Guitar Theory and Practice II

MUS 167 - Beginning Appalachian Dulcimer

MUS 168 - Beginning Clawhammer Banjo

MUS 169 - Beginning Fiddle

MUS 170 - Beginning Rhythm Guitar

MUS 171 - Beginning Mandolin

MUS 195 - Beginning Bluegrass Banjo

MUS 195 - Bluegrass Band I

MUS 195-1 - Christmas Carols in Appalachia

MUS 195-2 - Topics: Beginning Autoharp

MUS 195-3 - Topics: Intermediate Fiddle

MUS 195-4 - Intermediate Appalachian Dulcimer

MUS 195-5 - Ukulele

MUS 195-6 - Beginning Lead Guitar

MUS 218 - Traditional Music and Musicians of Central Appalachia

MUS 225 - The History of Jazz

MUS 290 - Coordinated Internship

MUS 295-1 - Celtic Mandolin

MUS 295-2 - Spec Topics: Blues Guitar

MUS 295-3 - Topics: Intermediate Mandolin

MUS 295-4 - Build & Play an Electri Guitar

MUS 295-5 - Fingerpicking Guitar

MUS 295-6 - Bluegrass Band and Harmony II

MUS 295-7 - Chord Melody for Jazz Guitar

MUS 295-8 - Acoustic Blues Guitar

Natural Science

NAS 106 - Conservation of Natural Resources

NAS 125 - Meteorology

NAS 131 - Astronomy: Solar System

NAS 132 - Astronomy: Stars and Galaxies

NAS 171 - Human Anatomy & Physiology I

Nursing

NSG 100 - Introduction to Nursing Concepts

NSG 106 - Competencies for Nursing Practitioners

NSG 115 - Health Care Concepts for Transition

NSG 130 - Professional Nursing Concepts

NSG 152 - Health Care Participant

NSG 170 - Health/Illness Concepts

NSG 200 - Health Promotion & Assessment

NSG 210 - Health Care Concepts I

NSG 211 - Health Care Concepts II

NSG 230 - Advanced Professional Nursing Concepts

NSG 252 - Complex Health Care Concepts

NSG 270 - Nursing Capstone

NUR 135 - Drug Dosage Calculations

Philosophy

PHI 111 - Logic I

PHI 220 - Ethics and Society

Physical Education and Recreation

PED 107 - Exercise and Nutrition I

PED 111 - Weight Training I

PED 116 - Lifetime Fitness and Wellness

PED 117 - Fitness Walking

PED 135 - Bowling I

PED 152 - Basketball I

PED 195 - Topics in Chi Kung

Physics

PHY 131 - Applied Physics I

PHY 201 - General College Physics I

PHY 202 - General College Physics II

PHY 241 - University Physics I

PHY 242 - University Physics II

Political Science

PLS 135 - U. S. Government & Politics

PLS 140 - Introduction to Comparative Politics

Practical Nursing

PNE 132 - Care of Maternal and Newborn Clients

PNE 143 - Applied Nursing Skills

PNE 145 - Trends in Practical Nursing

PNE 155 - Body Structure and Function

PNE 158 - Mental Health and Psychiatric Nursing

PNE 159 - Care of Pediatric Clients

PNE 161 - Nursing in Health Changes I

PNE 162 - Nursing In Health Changes II

PNE 164 - Nursing in Health Changes IV

PNE 173 - Pharmacology for Practical Nursing

PNE 174 - Applied Pharmacology for Practical Nurses

Psychology

PSY 116 - Psychology of Death and Dying

PSY 120 - Human Relations

PSY 200 - Principles of Psychology

PSY 215 - Abnormal Psychology

PSY 230 - Developmental Psychology

PSY 235 - Child Psychology

PSY 236 - Adolescent Psychology

Real Estate

REA 100 - Principles of Real Estate

Religion

REL 100 - Introduction to the Study of Religion

REL 200 - Survey of the Old Testament

REL 210 - Survey of the New Testament

REL 230 - Religions of the World

REL 240 - Religions in the U.S.

Respiratory Therapy

RTH 102 - Integrated Sciences for Respiratory Care II

RTH 110 - Fundamental Theory & Procedures for Respiratory Care

RTH 111 - Anatomy & Physiology for the Cardiopulmonary System

RTH 112 - Pathology of the Cardiopulmonary System

RTH 121 - Cardiopulmonary Science I

RTH 131 - Respiratory Care Theory & Procedures I

RTH 132 - Respiratory Care Theory & Procedures II

RTH 135 - Respiratory Care Diagnostic & Therapeutic Procedures

RTH 145 - Pharmacology for Respiratory Care I

RTH 151 - Fundamental Clinical Procedures I

RTH 152 - Fundamental Clinical Procedures II

RTH 224 - Integrated Respiratory Therapy Skills I

RTH 226 - Theory of Neonatal & Pediatric Respiratory Care

RTH 227 - Integrated Respiratory Therapy Skills II

RTH 253 - Advanced Clinical Procedures III

RTH 254 - Advanced Clinical Procedures IV

RTH 265 - Current Issues in Respiratory Care

RTH 267 - 12 Lead Electrocardiographic Diagnostics

Safety

SAF 126 - Principles of Industrial Safety

SAF 130 - Industrial Safety - OSHA 10

SAF 195 - Topics in Construction Safety

SAF 295 - Topics in Construction Work Zone Safety

Science Technology

SCT 111 - Introduction to Environmental & Science Technology I

SCT 112 - Introduction to Environmental and Science Technology II

Sociology

SOC 200 - Introduction to Sociology

SOC 211 - Cultural Anthropology

SOC 215 - Sociology of the Family

SOC 268 - Social Problems

Spanish

SPA 101 - Beginning Spanish I

SPA 102 - Beginning Spanish II

SPA 201 - Intermediate Spanish I

SPA 202 - Intermediate Spanish II

Student Development

SDV 100 - College Success Skills

SDV 101 - Orientation to

SDV 101-2 - Orientation to Careers in Health Sciences

SDV 106 - Preparation for Employment

SDV 107 - Career Education

SDV 108 - College Survival Skills

SDV 195 - Transfer Education Capstone

Travel

TRV 195 - Topics: Event Planning & Mgmt

Unmanned Systems

UMS 107 - Small Unmanned Aircraft Systems (sUAS) Remote Pilot Ground School

UMS 111 - Small Unmanned Aircraft Systems (sUAS) I

UMS 177 - Small Unmanned Aircraft Systems (sUAS) Components and Maintenance

UMS 211 - Small Unmanned Aircraft Systems (sUAS) II

UMS 290 - Coordinated Internship in sUAS

UMS 296 - On-Site Training in Unmanned Systems

Welding

WEL 100 - Fundamentals of Welding

WEL 110 - Welding Processes

WEL 115 - Arc and Gas Welding

WEL 123 - Shielded Metal Arc Welding (Basic)

WEL 126 - Pipe Welding I

WEL 129 - Pipefitting and Fabrication

WEL 130 - Inert Gas Welding

WEL 153 - Layout and Fitting for Welders

WEL 160 - Gas Metal Arc Welding

WEL 198 - Seminar & Project in Welding

Personnel

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- Professor Emeriti
- Staff
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- Respiratory Therapy Adjunct Clinical Staff

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- Durham, James
- Durham, Peggy
- Fisher, Sharon
- Harris, William
- Hicks, Leah
- Osborne, William Dub
- Phillips, Richard
- Ratliff, Vickie
- Reynolds, Carolyn
- Ringley, Shuler
- Rose, Van Perry
- Rusek, Peggy (deceased)
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- Tomlinson, Fran
- Wells, Shirley
- Wheless, Benjamin (deceased)

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- Nelson, Nita
- Parsons, Pat
- Pierson, Kathy
- Pippin, Debbie
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Terri N. Thompson, Vice Chair	Maurice Jones
Brenda Calderon	Ashby Kilgore
Edward Dalrymple, Jr.	Bruce Meyer
Sasha Gong	Althea "AJ" Robinson
Jeffrey V. Haley	Michael Eric Wooten
Mark J. Hourigan	Michek Zajur
Darius A. Johnson	David Dore, VCCS Chancellor

MECC Local Advisory Board

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MECC Foundation Board of Directors

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Kristy Hall, Vice-Treasurer

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Wayne Herndonl

Christopher Jones

Dr. Gary McCann

Peter Raber

Dr. Vicki Ratliff

Dr. Jack Rhoton

Jim Smith

Jason Sturgill

W.C. "Buzzy" Witt, Jr.

Advisory Committees

Administrative Support Technology/Medical Office Specialist

Sandra Bailey
Tiffany Collier
Angela Fannon
Melissa Hines
Eric McCracken
Sherry Tabor
Barbara Whitehead

Computer Aided-Drafting

Bryan Bales
Scott Bays
Michael Clark
Ryan Gendron
Mike Hobbs
Daniel Kestner
Mark Long
Wayne Newberry
Shuler Ringley
Jessica Swinney
Bobby Tuck
Andrew Tucker

Jerry Elkins Phillip Lee Phillip Seals

Computer Technologies

Heath Arwood Mitch Helton Scott Kiser Shan Mullins

Shaun Bolling Jim Hewitt Kirk Lortz Daniel Orr

Alex Edwards Jason Ingles Darren Manners Jacob Somervell

Josh Hall Greg Kiser Dan Minahan Barry Tate

Dental Assistant

Dr. Kevin Allred Tiffany Jacobs Skip Skinner Jane Thompson

Tessa Colley Dr. Matthew Loos Elaine Garrison Smith Sabrina Ward

Megan Hubbard Dr. Olivia Stallard Summer Woodward

Kathy Ison Jane Peterson Annette Templeton

Early Childhood Education

Dr. Harriette Arrington Patsy Brimelow Cindy Raymond Dr. Gina Wohlford

Electromechanical Technology

Darel Babb Jeff Frazier Jason Rose

Tabetha Church Nathan Hay Marty Taylor

Anthony Ewing Jeff Mullins Stephen Taylor

Emergency Medical Technology

Tim Addington Frank Hart Everett Lineberry Dr. Norman Rexrode

Kim Brown Paul Hoyle Delilah Long Mack Tolbert

Paul Bufford Scott Jerrell Tina Owens Greg Woods

Kim Dorton Ron Kendrick Paul Bufford

Energy Technology/HVAC

Robbie Boggs Clint Carter Billy Nash Robert Sallee

Matthew Bright Jamey Hatfield Kevin Perry Walter Warren

Joe Buchanan Tim Long Greg Rasnic

Tom Bush James McElrath Richard Rutherford

Environmental Science & Forest Science, Water/Wastewater

Dennis Baker Andrew Greer Jeff (JP) Morgan Tommy Roberts

Andy Barrier Mark Holyfield Jon Perry Michael Salyer

Jason Benton Greg Ketron Mark Quillin

Mike Dishman Cody McElroy Bobby Reynolds

Health Information Management

Marcus Adkins Sabrina Fox Leanna Lawson Kayla Sauls

David Caulder Genia Garrett Michelle Repass Krissy Tipton

Kim Dorton Melissa Johnson Robin Richards

Management

Tim Blankenbecler Pamela Collie-Price Tracy Reece Vicki Snodgrass

Joseph Boyd Cindy Garrett James Richardson

Rick Colley Robert Horton John Schoolcraft

Medical Lab Technology

Pam Bates Noelle Fleming Terena Scott Dawn Warren

Cindy Diamond Michael Kiser Jennifer Tauzell Lisa Wilson

Kim Dorton Brian Reynolds Ewell Vernon

Nursing

Joyce Addington Kellie Carter Ginny Hall Sabrina Mitchell

Sherry Allen Leslee Collins Rhandi Harris Heather Oakes

Courtney Bolling Dr. Paula Hill-Collins Mitch Kennedy Rebekah Rutledge

Jeremy Carlson Debbie Dotson Lori Looney Stephanie Stanley

Occupational Therapy Assistant

Greta Browning Kimberly Keen Andy Powers Kristi Williamson

Jane Hill Jennifer Lambert Cynthia Smith Kristen Zrioka

Crystal Keen Alicia Holbrook Mill Natasha Hay Viers

Paralegal Studies

Candi Carico Roy Jessee Sidney Kolb Jewell Morgan

Kerry Hay Joe Kincade Donna Lawson Diane Roberts

Sammie Horton

Pharmacy Technician

Vicki Adkins Leslie Dupree Nick Jackson Jordan Robbins

Maggie Buchanan Kristin Glovier Connie Reed Autumn Wells

Physical Therapy Assistant

Tommy Arnold Debbie Clark Marie Goodwin Crickett McClure

Laura Baldwin Marilyn Ertz Christine Hilton Traci Roberts

Maria Beamer Helen French Julie Jackson-King Lynn Stone

Lee Chaffee Margaret Gibson William Kolb

Police Science/Corrections

Rebecca Baird Russell Cyphers Grant Kilgore Joshua Marshall

Grayson Cothron Kelly Fleming James Lane Kevin Yates

Practical Nursing

Amanda Blevins

Hayleigh Branham Rhandi Harris Jennifer Johnson Kateri Reed

Chelsea Burke Jacquelyn Hawkins Kaylei Miller Rebekah Rutledge

Jeremy Carlson Cheryl Henry Amber Murphy Tonya Shelton

Deborah Clarkston Morgan Hensley Robin Neece Sandy Sims

Madison Dryden Teresa Holdway Amira Perrigan Cathy Stacey

Brittany Franklin Amanda Hughes Jamie Puckett Samantha Stanley

Jason Gilliam Crystal Jenkins Patrick Quillen

Radiologic Technology

Bill Akers Jessica Johnston Dr. Clint Pinion Chuck Riffe

Kim Dorton Nerisa Long Renee Ratliff Patty Vencill

Kim Felty Laura Murphy Dr. Vickie Ratliff

Real Estate

Katherine Bolling Amy Hubbard Virginia Roberts

Hagan Horn Noelle Owens Aubree Yates

Respiratory Therapy

Douglas Canter	Kim Dorton	Brandon Grimes	Jennifer Pinnell
Jason Crawford	Dr. Wael K. El-Minaoui	Heather Long	Isaac Sharrett
Kayla Dockery	Megan Gentry	Alice Phillips	Robin Wilson

Welding

Anthony Anderson	Michael Delph	Gary Killebrew	Derick Robinson
Ron Arnold	Thomas Greene	Jeremy Maskew	
Gerald Austin	Jamie Hoskins	David Nelson	
Shaun Christian	Benjamin Kennedy	Ron Norris	

Student Handbook

The Student Handbook has been combined with the College Catalog.

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