

## Mountain Empire Community College

www.mecc.edu

## Welcome 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.

This handbook 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. I ask that you consider taking advantage of the many student support services offered at our college. 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!
Scott Hamilton
President
Mountain Empire Community College

## Content Disclaimer

Mountain Empire Community College (MECC) provides its website, catalog, handbooks and any other printed materials or electronic media for your general guidance. MECC does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the Domain Naming System (DNS) registrations of www.mecc.edu are up-to-date, complete and accurate. Individuals assume any risks associated with relying upon such information without checking other credible sources, such as an academic advisor.

In addition, a student's or prospective student's reliance upon course information contained within these sources, or individual program catalogs, handbooks, printed or digital class schedules when making academic decisions does not constitute, and should not be construed as, a contract with MECC. Further, MECC 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.

We strongly encourage current and prospective students to confer with academic advisors for the most credible information about the College's programs and services.

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## Academic Calendar

|  | SUMMER SEMESTER 2016 ACADEMIC CALENDAR |  |  |  |
| :--- | :---: | :---: | :--- | :---: |
| LONG SESSION |  |  |  |  |

## FALL SEMESTER 2016 ACADEMIC CALENDAR

| August | $16-17$ | Tue-Wed | Faculty/Staff In-Service |
| :--- | :--- | :--- | :--- |
|  | $18-19$ | Thu-Fri | Enrollment/Advisement/New Student Seminar |
|  | 22 | Mon | Tuition Due for Early Enrollment |
|  | $\mathbf{2 2}$ | Mon | FIRST DAY OF CLASSES |
| September | 28 | Sun | Last day to add without faculty permission |
|  | 7 | Mon | College Closed - Labor Day Holiday |
|  |  | Mon | Last Day to add with faculty permission, change from audit to credit, drop.. <br> with a refund, change from credit to audit |
| October | 14 | Fri | In-Service Day - No day or evening classes |
|  | 31 | Mon | Last day to withdraw without grade penalty |
| November | 1 | Tue | Application deadline for Fall Graduation |
|  | 7 | Mon | Spring 2017 Early Enrollment begins |
|  | 18 | Fri | Last day to make up incomplete grades from Summer 2016 |
|  | $22-23$ | Tue-Wed | Faculty Research Day - No day or evening classes |
|  | $24-25$ | Thu-Fri | College Closed - Thanksgiving Holiday |
| December | $\mathbf{8}$ | Thu | LAST DAY OF CLASSES |
|  | 9 | Fri | Exam Preparation |
|  | $12-15$ | Mon-Thu | FINAL EXAMS |
|  | 16 | Fri | Grades due at Noon |
|  | $19-22$ | Mon-Thu | Faculty Research Days |
|  | $23-30$ | Fri-Fri | College Closed - Christmas Holiday |

8W1 (EIGHT WEEK FIRST) SESSION
Aug. 22 Mon FIRST DAY OF CLASSES
25 Thu Last day to add a course without faculty permission
29 Mon Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
Sep. 22 Thu Last day to withdraw without grade penalty
Oct. 14 Fri LAST DAY OF CLASSES

3W1 (THREE WEEK FIRST) SESSION
Aug. 22 Mon FIRST DAY OF CLASSES
22 Mon Last day to add a course without faculty permission
25 Thu Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
Sep. 6 Tue Last day to withdraw without grade penalty
15 Thu LAST DAY OF CLASSES
3W2 (THREE WEEK SECOND) SESSION
Sep. 19 Mon FIRST DAY OF CLASSES
19 Mon Last day to add a course without faculty permission
22 Thu Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
Oct. 3 Mon Last day to withdraw without grade penalty
13 Thu LAST DAY OF CLASSES

8W2 (EIGHT WEEK SECOND) SESSION
Oct. 19 Wed FIRST DAY OF CLASSES
23 Sun Last day to add a course without faculty permission
27 Thu Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
Nov. 21 Mon Last day to withdraw without grade penalty
Dec. 14 Wed LAST DAY OF CLASSES

3W3 (THREE WEEK THIRD) SESSION
Oct. 17 Mon FIRST DAY OF CLASSES
17 Mon Last day to add a course without faculty permission
20 Thu Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
31 Mon Last day to withdraw without grade penalty
Nov. 10 Thu LAST DAY OF CLASSES
3W4 (THREE WEEK FOURTH) SESSION
Nov. 14 Mon FIRST DAY OF CLASSES
14 Mon Last day to add a course without faculty permission
17 Thu Last day to add with faculty permission, drop with a refund, change from audit to credit, change from credit to audit
28 Mon Last day to withdraw without grade penalty
Dec. 8 Thu LAST DAY OF CLASSES

## SPRING SEMESTER 2017 ACADEMIC CALENDAR



## EXAM SCHEDULE

## FALL SEMESTER 2016

| Mon., Dec. 12 | If your class meets: |  |
| :--- | :---: | :---: |
| Mon/Wed | $8: 15-9: 30 \mathrm{am}$ | $8: 00-10: 00 \mathrm{am}$ |
| Tue/Thu | $9: 40-10: 55 \mathrm{am}$ | $10: 30-12: 30 \mathrm{pm}$ |
| Mon/Wed | $11: 05 \mathrm{am}-12: 20 \mathrm{pm}$ | $1: 00-3: 00 \mathrm{pm}$ |
| Tue/Thu | $12: 50-2: 05 \mathrm{pm}$ | $3: 30-5: 30 \mathrm{pm}$ |
|  | Monday evening exams will be held from 6:00-8:00 pm |  |


| Tue., Dec. 13 | If your class meets: | Your exam will be: |
| :---: | :---: | :---: |
| Tue/Thu | 8:15-9:30 am | 8:00-10:00 am |
| Mon/Wed | 9:40-10:55 pm | 10:30-12:30 pm |
| Tue/Thu | 11:05 am-12:20 pm | 1:00-3:00 pm |
| Mon/Wed | 12:50-2:05 pm | 3:30-5:30 pm |
| Tuesday evening exams will be held from 6:00-8:00 pm |  |  |


| Wed., Dec. 14 | If your class meets: |  |
| :--- | :---: | :---: |
| Mon/Wed | $2: 15-3: 30 \mathrm{pm}$ | $8: 00-10: 00 \mathrm{am}$ |
| Tue/Thu | $2: 15-3: 30 \mathrm{pm}$ | $10: 30-12: 30 \mathrm{pm}$ |
| Mon/Wed | $3: 40-4: 55 \mathrm{pm}$ | $1: 00-3: 00 \mathrm{pm}$ |
| Tue/Thu | $3: 40-4: 55 \mathrm{pm}$ | $3: 30-5: 30 \mathrm{pm}$ |
|  | Wednesday evening exams will be held from $6: 00-8: 00 \mathrm{pm}$ |  |

## Thu., Dec. 15

Exam Make-up Day! Schedule as needed.
Thursday evening exams will be held from 6:00-8:00 pm

## SPRING SEMESTER 2017



| Tue., May 9 | If your class meets: |  |
| :--- | :---: | :---: |
| Tue/Thu | $8: 15-9: 30 \mathrm{am}$ | $8: 00-10: 00 \mathrm{am}$ |
| Mon/Wed | $9: 40-10: 55 \mathrm{pm}$ | $10: 30-12: 30 \mathrm{pm}$ |
| Tue/Thu | $11: 05 \mathrm{am}-12: 20 \mathrm{pm}$ | $1: 00-3: 00 \mathrm{pm}$ |
| Mon/Wed | $12: 50-2: 05 \mathrm{pm}$ | $3: 30-5: 30 \mathrm{pm}$ |
|  |  | Tuesday evening exams will be held from $6: 00-8: 00 \mathrm{pm}$ |


| Wed., May 10 | If your class meets: |  |
| :--- | :---: | :---: |
|  | $2: 15-3: 30 \mathrm{pm}$ | Your exam will be: |
| Mon/Wed | $2: 15-3: 30 \mathrm{pm}$ | $10: 30-10: 00 \mathrm{~mm}$ |
| Tue/Thu | $3: 40-4: 55 \mathrm{pm}$ | $1: 00-3: 00 \mathrm{pm}$ |
| Mon/Wed | $3: 40-4: 55 \mathrm{pm}$ | $3: 30-5: 30 \mathrm{pm}$ |
| Tue/Thu |  |  |

## Thu., May 11

Exam Make-up Day! Schedule as needed.
Thursday evening exams will be held from 6:00-8:00 pm

## MECC Bookstore Deadlines

Summer 2016

| May | 26 | Thursday | First day students can charge to financial aid accounts |
| :--- | :--- | :--- | :--- |
| June | 10 | Friday | Last day to return textbooks |
|  | $24-30$ | Friday -Thursday | Bookstore closed for inventory |
| July | 11 | Monday | Last day to charge to financial aid accounts |

Fall 2016

| August | 18 | Thursday | First day students can charge to financial aid accounts |
| :--- | :--- | :--- | :--- |
| September | 12 | Monday | Last day to return textbooks |
|  | 12 | Monday | Last day to charge to financial aid accounts |
| December | 9 | Friday | Textbook buyback, 9 a.m. to 4 p.m. |
|  | $12-15$ | Monday-Thursday | Textbook buyback, 9 a.m. to 4 p.m. |
|  | 15 | Thursday | Textbook rentals due |

## Spring 2017

| January | 11 | Wednesday | First day students can charge to financial aid accounts |
| :--- | :--- | :--- | :--- |
| February | 1 | Wednesday | Last day to return textbooks |
| February | 14 | Tuesday | Last day to charge to financial aid accounts |
| May | 5 | Friday | Textbook buyback, 9 a.m. to $4 \mathrm{p} . \mathrm{m}$. |
|  | $8-11$ | Monday-Thursday | Textbook buyback, 9 a.m. to 4 p.m. |
|  | 11 | Thursday | Textbook rentals due |



## Who Can Answer My Question?

| Issue | Who to Call | Contact |
| :---: | :---: | :---: |
| Academic - General Studies | Dean, Arts \& Sciences | 276.523.7460 |
| Academic - Applied Science \& Technology | Dean, Applied Science \& Technology | 276.523.7465 |
| Academic - Business \& Information Technology | Dean, Business \& Information Technology | 276.523.2400 ext. 313 |
| Adding or dropping a course | Your Advisor | 276.523.2400 |
| Advanced placement | Dean, Arts \& Sciences | 276.523.7460 |
| Blackboard | Instructional Technology | 276.523.7488 |
| Career planning | Career Services Center | 276.523.2400 ext. 324 |
| 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 |

$\begin{array}{lll}\text { Evaluation of credits } & \text { Enrollment Services/Admissions } & 276.523 .7474\end{array}$
$\begin{array}{lll}\text { Fees, tuition \& refunds } & \text { Business Office } & 276.523 .7475\end{array}$

| Financial aid | Enrollment Services/ <br> Financial Aid | 1-844-MECC4ME |
| :--- | :--- | :--- |

Graduation applications $\quad$ Enrollment Services/Admissions $\quad 276.523 .7474$
ID cards $\quad$ Student Outreach \& Success $\quad 276.523 .2400$ ext. 674

| Lost and found | Student Services Office | 276.523 .7472 |
| :--- | :--- | :--- |
| Off-campus classes | Workforce Development Center | 276.523 .7464 |
| Parking permits and fines | Business Office | 276.523 .7475 |
| Publicity and publications | Community Relations Office | 276.523 .7480 |
| Scholarships | Financial Aid | 276.523 .2400 |
| Intramurals and student activities | Student Services Office | 276.523 .7472 |
| Student records | Enrollment Services/Admissions | 276.523 .7474 |
| Testing | Student Services Office | 276.523 .2400 ext. 283 |
| Tuition payment plan | Business Office | 276.523 .7475 |
| Transcripts | Enrollment Services/Admissions | 276.523 .7474 |
| Transfer information | Student Services Office | 276.523 .2400 ext. 324 |
| Tutoring | Financial Aid | 276.523 .2400 ext.342 |
| Weterans affairs | Your Advis | 276.523 .2400 ext. 217 Sers |

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

## General Information

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. The College is authorized by the Veterans Administration to certify students to receive veterans' benefits and is approved by the Department of Health and Human Services for students who receive Social Security and Vocational Rehabilitation benefits. The Respiratory Therapy program is accredited by the Commission on Accreditation for Respiratory Care. The Nursing program is approved by the Virginia State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326). 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.

## Non-Discrimination Statement

It is the policy of the Virginia Community College System and Mountain Empire Community College to provide equal employment and educational opportunities for all persons without regard to race, color, religion, national origin, political affiliation, veteran status, gender, age, or sexual orientation and for all otherwise qualified persons with disabilities. This policy permits appropriate employment preference for veterans. This institution
promotes and maintains educational opportunities without regard to race, color, sex, ethnicity, religion, gender, age (except when age is a bona fide occupational qualification), disability, national origin, or other non-merit factors. This institution prohibits sexual harassment including sexual violence. The following person has been designated to handle inquiries regarding non-discrimination policies: Ron Vicars, Vice President of Financial and Administrative Services. The following person has been designated to handle inquiries regarding student misconduct or equity issues based on gender: Brandon Dotson, Dean of Student Services. The following person has been designated to handle inquiries regarding employee misconduct or equity issues: Pam Giles, Human Resource Manager. For more information, contact 276.523.2400, 3441 Mountain Empire Rd., Big Stone Gap, VA, 24219. Virginia relay users dial 711.

## College Catalog and Student Handbook

The Mountain Empire Community College Catalog is the official reference for the College's academic programs, courses, and academic procedures. The catalog should be used as a guide in planning a course of study and in meeting requirements for graduation. Although every effort has been made to provide the most accurate and up-to-date information possible within this Catalog, the College reserves the right to change, when warranted, any of the provisions, schedules, programs, courses, or fees, as might be required.

The current MECC Student Handbook is also another valuable resource for information on academic policies not found within this publication, as well as academic support services, student life, and MECC's code of conduct. The College Catalog and Student Handbook are informational and subject to all applicable laws and policies of the State Board for Community Colleges. Policies and procedures made subsequent to the publication of the current year's catalog and handbook take precedence and will be part of the next publications.

The most up-to-date version of the College Catalog and Student Handbook are available on the College Web site at www.mecc.edu.

## Mission

Mountain Empire Community College's 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.

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

Our vision is to educate a diverse group of students by developing the skills they need for success, instilling a commitment to the community, and promoting an understanding of the broader global community.

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 our students, to our community, and to each other. We support and promote the values of honesty, integrity and trust. We remain true to the ideals and principles of teamwork and communication. Through the creativity and innovation of our employees, we foster a culture of continuous quality improvement. The foundation of our institution is the unique diversity of educational experiences we provide for the community, shaped by our dedication to teaching and learning and to the values that we share.

## 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.


## 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.

## Governance

## Virginia Community College System State Board for Community Colleges

Idalia Fernandez, Chair
James Cuthbertson, Vice-Chair
Carolyn Berkowitz
Thomas Brewster
Benita Thompson Byas
Darren Conner
LaVonne P. Ellis
Douglas M. Garcia

MECC Local Advisory Board
Rex McCarty, Chair
Bonnie Elosser, Vice-Chair
Teresa Adkins
Dr. Vickie Brown
Carolyn Dishner
Gail Elliott
Robert Etherton
James David Graham
Adrienne Hood

## MECC Foundation, Inc., Board of Directors

Gary McCann, Chair
Robert Isaac, Vice-Chair
Diana Pope, Treasurer
Ron Vicars, Vice-Treasurer
Donna Stanley, Executive Director
Dr. Scott Hamilton, President of MECC
Ben Allen, Past-Chair
Susie Austin
Roger Daugherty
Dr. Kathleen A. DePonte
Bonnie Elosser
Ruth Gilliam
Sarah Gilliam
Karen K. Hall

William C. Hall, Jr.
David Nutter
Catherine B. Reynolds
Eleanor Saslaw
Michael J. Schewel
Robin Sullenberger
Michel Zajur
Glenn DuBois, VCCS Chancellor

Robert Isaac
Mary Ruth Laster
Alane Short Lovern
Burl Mooney
R. Dennis Sturgill

Robert H. Tuck
Scott Hamilton, Secretary to the Board and President of MECC

Leton Harding, Jr.
G. E. "Pedro" Hunnicutt, Jr. Cynthia Kinser
Sandy McGlothlin
Dorothy Meade
Virginia H. Meador
H. Ronnie Montgomery

Mark Musick
Donnie Ratliff
Doris Rife
Martha Spurlock
Ryan Witt
W. C. "Buzzy" Witt, Jr.


1. Godwin Hall
2. Holton Hall
3. Dalton-Cantrell Hall
4. Robb Hall
5. Phillips-Taylor Hall
6. Goodloe Center
7. Firing Range
8. Tennis Courts
9. Environmental Pond
10. Maintenance Building

## Student Parking

A, B, D, E, \& F - Student Parking
C - Faculty/Staff Parking
H - Handicapped Parking
V - Visitor Parking

## Hours of Operation

MECC campus offices are open Monday through Friday, 8 a.m. to $4: 30$ p.m. Offices may experience schedule changes during peak periods and summer.

## Student Services Hours

Monday through Thursday, 8 a.m. to 6 p.m.
Friday 8 a.m. to 4:30 p.m.

Wampler Library Hours
Fall and Spring Semesters:
Monday - Thursday: 8 a.m.- 8:30 p.m.
Friday: 8 a.m.- $4: 30$ p.m.
Saturday: 10 a.m.- 2 p.m.
Summer Semester:
Monday - Thursday: 8 a.m. - 7:30 p.m.
Friday: 8 a.m. $-4: 30$ p.m.
Saturday: 10 a.m. -2 p.m.

## Inclement 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. A recorded announcement of the schedule change will also be available by calling 276.523.7495. The following radio and television stations will announce the schedule change:

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

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

## Understanding Announcements:

- Snow Schedule: Classes begin at 10 a.m. Employees report at 9:30 a.m.
- College Closed: Day and Evening classes and all services are cancelled.
- Day and/or Evening Classes are canceled: College is open for all other services.


## Schedule of Classes when operating on a Snow Schedule:

- 8:15 a.m. - 9:30 a.m. classes meet 10 a.m. - 11 a.m.
- 9:40 a.m. - 10:55 a.m. classes meet 11:05 a.m.- 12:05 p.m.
- 11:05 a.m. - 12:20 p.m. classes meet 12:10 p.m. - 1:10 p.m.
- 12:20 p.m. to $12: 50$ p.m. Activity Period meets $1: 10 \mathrm{p} . \mathrm{m} .-1: 40 \mathrm{p} . \mathrm{m}$.
- 12:50 p.m. - 2:05 p.m. classes meet at 1:45 p.m. to 2:45 p.m.
- 2:15 p.m. - 3:30 p.m. classes meet 2:50 p.m. - $3: 50$ p.m.
- 3:40 p.m. - 4:55 p.m. classes meet $3: 55$ p.m. $-4: 55$ p.m.
- 5 p.m. classes meet as normal


## Admission Requirements

## 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:

|  | VPT | Compass | Asset |
| :--- | :--- | :--- | :--- |
| Reading | ENF 1 | 62 | 35 |
| Writing | ENF 1 | 32 | 35 |
| Math | MTE 1 | 25 | 33 |

Exceptions to this policy may be made by the College president only for documented reasons. Students who do not meet the minimum score requirements are referred to the Dean of Student Services.

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.

It is the policy of the VCCS and MECC to maintain and promote equal employment and educational opportunities without regard to race, color, sex or age (except where sex or age is a bona fide occupational qualification), religion, handicap, national origin, or other non-merit factors. Inquiries concerning the Affirmative Action Policy should be addressed to the College's Affirmative Action Officer, whose office is located in Godwin Hall and who can be reached at 276.523.7478. Individuals may be admitted to MECC as curricular or non-curricular students.

For all curricular students, the following items are required:
a. A completed official application for admission with social security number requested.
b. 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.
c. 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 with social security number requested.

## Dual Enrollment Student Admissions

Although high school and home school students are not normally qualified for general admission, Colleges may offer admission to those students who meet additional criteria. Dual enrollment is restricted to high school juniors and seniors and home school students studying at the high school junior or senior levels. Home school students must also provide a copy of a home school agreement approved by the school district or a letter from the local school board or a copy of the letter filed by the parent/legal guardian declaring home school for religious exemption. Documentation of parental permission is required for all dual enrollment students.

Because admitting freshmen and sophomores is considered exceptional, the college ready status of each prospective freshman and sophomore student will be treated on a case-by-case basis. Formal approval by the College president is required for admitting freshmen or sophomores.

All students admitted under this section must demonstrate readiness for college by meeting the criteria below.

Students enrolling in a dual enrollment course must meet all course pre-requisites.

Dual Enrollment Admission Criteria for Transfer Courses

|  | Virginia Placement <br> Test (VPT) | Compass | Asset | PSAT | SAT | ACT | SOL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| English/ Writing | ENG 111 | 76 | 43 | 50 | N/A | 18 | N/A |
| Reading | ENG 111 | 81 | 42 | 50 | N/A | 18 | N/A |
| Writing/Reading | ENG 111 | N/A | N/A | 390 | $560^{*}$ | N/A | N/A |
| Mathematics | MTE 1 | 25 | 33 | 52 | $550^{*}$ | 22 | Algebra <br> I - Pass |

Dual Enrollment Admission Criteria for CTE Courses

|  | Virginia Placement <br> Test (VPT) | Compass | Asset | PSAT | SAT | ACT | SOL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| English/ Writing | ENF 1 | 32 | 35 | N/A | N/A | 18 | N/A |
| Reading | ENF 1 | 62 | 35 | N/A | N/A | 18 | N/A |
| Writing/Reading | ENF 1 | N/A | N/A | 390 | $560^{*}$ | N/A | N/A |
| Mathematics | MTE 1 | 25 | 33 | 500 | $550^{*}$ | 22 | Algebra <br> I - Pass |

Federal regulations do not permit financial aid to be awarded to college students who are simultaneously enrolled in public or private secondary educational programs or home school.
*College Board released the redesigned SAT in March 2016. State Board approved score cuts for this new version in July 2016. As a result of the policy change, all SAT scores resulting from an older version of the test will need to use the following equivalencies to qualify for a placement test exemption. These equivalencies match the previous SAT policy scores.

| Test | Required Scores for Previous <br> SAT versions (Pre-March 2016) | New SAT Policy Minimum Score Cuts <br> (Post-March 2016 version only) |
| :--- | :--- | :--- |
| Reading/ Writing | 500 (on both) | 560 (ERW Combined Score) |
| Math | 520 | 550 |

## 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.

## 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 en-
rollment 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 by writing: G.E.D. Service, VA Dept. of Education, and PO Box 6Q, Richmond, VA 23216. 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. The placement test consists of English (writing and reading) and mathematics. Some programs do not require all three tests. Consult the Testing Coordinator for further information. Students who have submitted SAT or ACT scores may be exempt from the English, and/or math placement tests.

In order to be exempt from the Virginia Placement Test English component, the students must have a score of at least 560 on the SAT writing/reading tests.* ACT scores of 18 on both the English and reading sections exempt the student from placement tests in reading and writing. In order to be exempt from the mathematics placement test, the student must have a score of at least 550 on the SAT math test.* An ACT score of 22 in math exempts a student from taking the math placement test.
*These scores reflect policy changes as of March 2016. Students with SAT scores prior to

March 2016, consult the equivalency chart on page 19 of this Catalog.

Test scores are valid from two years after the date the test was administered. Students who complete the Virginia Placement Test and do not enroll in developmental math or English are allowed to take one retest within 12 months. Students who attempt developmental math or English will be ineligible for a retest. A student may petition to repeat the placement test after an appropriate intervention has taken place. Contact the Testing Center in Student Services for additional information. Students who do not meet minimum academic requirements for admission are referred to the Dean of Student Services. Students who do not demonstrate proficiency for success in the respective curricula will be required to enroll in developmental reading, writing, and/or mathematics classes.

## Registering

- Prior to or during registration, students will take the Virginia Placement Test. After the test, students will be provided their personal results.
- Students must take their assessment results to their advising appointment. Without this information, advisors will not be able to register students for classes.
- The advisor will work with the student to complete a class schedule which satisfies the student's needs, as well as College and program requirements. The advisor will assist the student in logging on to MECC Online and enrolling in classes.


## Non-Curricular Student

Students who are not formally admitted to one of the regular curricula but who are classified according to the following student goals or conditions 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.

The online admission application is available at the College's web site www.mecc.edu/apply. All curricular students must take the required placement test prior to enrolling in a course for which there is a mathematics, reading or English prerequisite. Dual enrollment students must take the placement test prior to registration. Non-curricular students are not eligible to receive financial aid.

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.

## 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. International students who are exclusively taking classes through distance learning without entry into the United States will be evaluated on an individual basis. 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. The College will not certify applications for an international student to obtain a work permit until they have successfully completed 30 semester hours of coursework at the College with a 3.0 GPA , or resided in the U.S. for at least twelve consecutive months, whichever is the longest period of time.

All international applicants must submit an International Student Data Form provided by the College, that they have personal or family financial resources sufficient to pay college and living expenses prior to being issued a SEVIS-I20. The statement must include the amount of income the student will receive while attending college, the source of income, and the manner in which living expenses will be met. In addition, applicants must submit documentation evidence (notarized bank statement in US dollars) of financial support in the amount indicated on the International Student Data form.

All international students holding F-1 visas must purchase health and accident insurance. If the applicant is under eighteen, the parent or legal guardian must submit the notarized statement of financial support. All international students must have a local sponsor who will assume financial responsibility for the student.

## 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 TOEFL score of at least 550 on the paper-based TOEFL test and 234 on the computer-based TOEFL test is required, although achieving that score is no guarantee of admission. The applicant is responsible for making early arrangements for taking the
test and should address inquiries to TOEFL, Educational Testing Service, Princeton, New Jersey 08540, USA.

The Bulletin of Information, obtainable without charge, contains a description of the test and rules regarding application, fees, reports on the conduct of the test, lists of examination centers, examination dates, and an application blank. 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. This evaluation will generally include completion of our freshman assessment in Mathematics and English (with a recommendation of at least ENF 3) including a writing sample on an assigned topic, followed by an interview with a member of the English faculty. The English faculty member will make an admission recommendation based on the interview, writing, and test results. While the College is very interested in enrolling qualified international students who can benefit from an educational experience, we have no interest in enrolling students who do not meet the minimum requirements set forth or in providing a Certificate of Eligibility for Nonimmigrant Students (I-20) on a quick turnaround basis without all proper documentation. There is no substitute for planning ahead on the part of international students wishing to gain admission. 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 276.523.2400.

## 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.

## 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 the Tennessee counties of Hancock, Hawkins, Sullivan and the City of Kingsport, and of the Kentucky counties of Harlan, Letcher, and Pike are eligible to pay in-state contract tuition rates if they are eligible to pay in-state rates while attending a state supported college or university in their respective states of residence.

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 dead-
line. In addition, residents of localities with which the College has clinical-site affiliation may receive equal consideration for admission.

MECC 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/Respiratory 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.

## 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.


## Advanced Standing and Waiver of Course Requirements

## Advanced Standing

Advanced standing 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. 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 Enrollment Services to determine procedures before registering for classes. 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 period.

## Applying for Advanced Standing or Waiver of Course Requirements

To apply for advanced standing credit or waiver of course requirements, the student must have completed or be enrolled for at least six (6) credits in a program of study at the College. The student must apply by filing an application for advanced standing or waiver through a faculty advisor or a division dean.

## Waiver of Course Requirements

Credits waived may 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.

## Extra-Institutional Credit Limits

No more than $25 \%$ of the course credits required to graduate in a program may be obtained through extra-institutional credit. Ex-tra-institutional credit includes credit based upon examination, equated occupational expe-
rience, CLEP, AP, or armed forces educational experience. Credits waived or awarded by advanced standing will not be included in the computation of the student's cumulative grade point average. Consequently, the student's GPA will be based upon courses actually completed at the College.

Credit by Examination is one means of achieving Advanced Standing through satisfactorily demonstrating subject-matter competency by an examination administered by the College.

Credit by Previous Completion is a means of achieving Advanced Standing through an administrative determination by the College that equivalent course coverage has been satisfactorily completed at an accredited postsecondary institution.

Credit by Equated Occupational Experience is a means of achieving Advanced Standing through an administrative determination by the College that the occupational experience of an individual is at least equivalent to the course(s) to be exempted.

The College Level Examination Program (CLEP) was established by the Educational Testing Service to enable individuals who have acquired their education in nontraditional ways to demonstrate their academic achievement. This testing program is designed for those who have gained their education outside the classroom through such means as correspondence study, television courses, independent readings, on-the-job training, and work experience. Students wishing to receive credit through CLEP testing should consult with a faculty advisor concerning applicability of CLEP credit to their curriculum. The College will grant credit to those who provide an official score report with an acceptable score on any portion of the general or subject examinations as indicated below. 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 below are equivalent to a grade of C in the corresponding course. MECC does not administer CLEP testing. Note: Students planning a transfer to another college or university are responsible for determining if that institution will accept CLEP credit.

| General Examinations | CLEP Score | CR. |
| :--- | :---: | :---: |
| Business |  |  |
| Financial Accounting | 50 | 3 |
| Information Systems \& Computer Applications | 50 | 3 |
| Introductory Business Law | 50 | 3 |
| Principles of Management | 50 | 3 |
| Principles of Marketing | 50 | 3 |
| Composition and Literature |  |  |
| American Literature | 50 | 3 |
| Analyzing and Interpreting Literature | 50 | 3 |
| College Composition | 50 | 6 |
| English Literature | 50 | 3 |
| World Languages | 50 |  |
| French Language (Level I) | 59 | 6 |
| French Language (Level 2) | 50 | 9 |
| German Language (Level 1) | 60 | 6 |
| German Language (Level 2) | 50 | 9 |
| Spanish Language (Level 1) | 63 | 6 |
| Spanish Language (Level 2) |  | 9 |
| l |  |  |

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 |
| History of the United States I: Early Colonization to 1877 | 50 | 3 |
| History of the United States II: 1865 to Present | 50 | 3 |
| Human Growth \& Development | 50 | 3 |
| Intro to Educational Psychology | 50 | 3 |
| Introductory Psychology | 50 | 3 |
| Introductory Sociology | 50 | 3 |
| Principles of Macroeconomics | 50 | 3 |
| Principles of Microeconomics | 50 | 3 |
| Social Sciences \& History | 50 | 6 |
| Western Civilization I: Ancient Near East to 1648 | 50 | 3 |
| Western Civilization II: 1648 to Present | 50 | 3 |
| Science and Mathematics |  | 6 |
| Biology | 50 | 4 |
| Calculus | 50 | 6 |
| Chemistry | 50 | 3 |
| College Algebra | 50 | 6 |
| College Mathematics | 50 | 3 |
| Pre-Calculus | 50 | 6 |
| Natural Sciences | 50 | 3 |

${ }^{1}$ 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.

The Advanced Placement Program (AP) was established by the College Board to allow high school students completing Advanced Placement studies to demonstrate their academic achievement in specific subject areas at the collegiate level. The College will grant one semester of credit for any subject area in which the student receives an AP score of 3 . If the College offers a sequential semester of the subject area, the student receiving an AP score of 4 or 5 will be awarded one semester of credit for the second semester of the course. Students should consult with a faculty advisor concerning applicability of AP credit to their curriculum.

The International Baccalaureate (IB) is recognized by MECC. Credits will be evaluated upon submission of transcripts.

Educational Experience in Armed Forces. Credit may be allowed for military schools if this credit is recommended in the ACE Guide to the Evaluation of Educational Experiences in the Armed Services and if the work is applicable to the program being pursued.

## Classification of Students

- Freshman - A student is classified as a freshman until 30 credits have been completed.
- Sophomore - Students are classified as sophomores after 30 or more credits of course work have been completed.
- Full-Time - Students enrolled for 12 or more credits in a semester are considered full-time students.
- Part-Time - Students enrolled for fewer than 12 credits in a semester are part-time students.


## Enrollment

## Steps to Enrollment

Enrolling for classes at Mountain Empire Community College is a 4 -step process:

## STEP 1: APPLY FOR ADMISSION

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 noncredit class enrollment, visit the Workforce Solutions web page at www. mecc.edu/workforce.

## STEP 2: APPLY FOR FINANCIAL AID

MECC encourages all eligible degree and certificate seeking students to apply for financial aid at fafsa.ed.gov. Financial aid may come in the form of grants, scholarships, loans 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 May 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.

## STEP 3: TAKE PLACEMENT TESTS, SUBMIT TRANSCRIPTS, AND MEET WITH AN ADVISOR

## Take the Placement Test

Students who plan to apply for financial aid or pursue a degree or certificate at MECC requiring math or English courses must take placement tests. These tests are administered in the Testing Center located in Holton Hall. There is no fee to take the placement tests. You can prepare for these tests by reviewing placement test information, located at www.mecc.edu/testing.

Possible exemptions from taking some or all of the placement tests include:

- SAT scores (within two years) of at least 550 in math and/or 560 in reading/writing*
- Certain ACT scores (consult with MECC's Admissions Office)
- Successful completion of certain col-lege-level math and/or English courses
- AP test scores of 3 or higher in English and/or math
*These scores reflect policy changes as of

March 2016. Students with SAT scores prior to March 2016, consult the equivalency chart on page 19 of this Catalog.
Official SAT, ACT, and AP scores must be submitted to Enrollment Services Office.

## Send High School or College Transcripts to MECC

Students applying for admission should submit their high school or college transcript information to Enrollment Services Office, located in Godwin Hall, prior to registering for courses.

## Meet with an Advisor

After taking your placement tests, make an appointment with an advisor. Your faculty advisor will be helpful in getting you started for your first semester. Enrollment for fall, spring, and summer classes occurs after publication of class schedules (which come out before the start of each semester). The schedule is available from Enrollment Services, your advisor, or online at www.mecc.edu.

## STEP 4: REGISTER AND PAY FOR CLASSES

## Register

Register for classes online through MECC Online, 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 MECC Online, follow the VCCS SIS: Student Information System/Student Center/ Enroll link to register.

## Pay for Classes

Pay for classes either online through MECC Online, by using the TMS Payment Plan Option, or in person at the Business Office (Godwin Hall, 1st floor). To learn more about payment options, visit www. mecc.edu/paying-for-college. Important: You will be dropped from classes if you do not pay tuition and fees by the payment deadline noted in the Academic Calendar.

## Complete the New Student Checklist

After completing STEP 4, review the New Student Checklist and attend the New Stu-
dent Seminar. Information regarding the checklist and seminar are located at www. mecc.edu/newstudent.

## New Student Checklist

Now that you have completed the Steps to Enrollment, here are a few other things that you need to be ready for college.
$\checkmark$ Get a Student Photo ID. All MECC students must register for a student ID. You can obtain your student ID at the Center for Student Outreach \& Success in Holton Hall.
$\checkmark$ Buy or Rent your Books. The MECC Bookstore is located on campus in the Holton Hall. Hours and contact info are posted on the Bookstore's Web site. To buy or rent books, visit the MECC Bookstore or the Bookstore website at www.mecc.edu/ bookstore. 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.
$\checkmark$ Access MECC Online. To access your student email, Blackboard, and the Student Information System, visit MECC Online. MECC Online is located at the top right corner of the MECC homepage at www. mecc.edu.
$\checkmark$ Access Your MECC Email. To access your MECC Email, $\log$ in to MECC Online with your username and password, and select the "Gmail" link.
$\checkmark$ Access Blackboard. Don’t worry if you do not see your credit classes listed in Blackboard before the first day of class! Your class schedule in the VCCS Student Information System is considered your official list of credit classes for which you are registered. Access your schedule through MECC Online, and you'll see all the classes for which you registered. Credit classes show up in Blackboard either on the first day of the class or within 48 hours after registering.
$\checkmark$ Access Your Class Schedule. Have your
class schedule available during the first week of classes. The classes you are registered to take are listed in the Student Information System, which you access through MECC Online. On the first day of class, be sure to have a printed or online copy of your class schedule handy so you'll know the date, time, building and room number of your classes. The letter which precedes the room number designates the building in which your class is held: $\mathrm{G}=$ Godwin Hall, $\mathrm{H}=$ Holton Hall, $\mathrm{D}=$ Dalton-Cantrell Hall, $\mathrm{P}=$ Phillips-Taylor Hall, $\mathrm{R}=$ Robb Hall.
$\checkmark$ Get a Free Parking Decal. All MECC students must register for a parking permit. Register for your parking permit on the first floor of Godwin Hall in the Business Office.
$\checkmark$ Attend the New Student Seminar. All new students are required to attend the New Student Seminar, a comprehensive SDV course which is scheduled prior to the first day of classes. New Student Seminar meets the requirements of SDV 100. It is taught in two days, culminating in a day of activities that will provide students opportunities to engage with their specific program faculty and interact with student clubs and organizations. Completion of the two-day class 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.
$\checkmark$ Visit the 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.
$\checkmark$ Register for MECC Alerts. For your safety and convenience, we strongly recommend that you sign up for our emergency alert system. It 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.
$\checkmark$ Read the MECC Student Handbook. The MECC Student Handbook contains information about College operations and policies. The Student Handbook contains additional information and MECC's Code of Conduct. To access the MECC Student Handbook, visit www.mecc.edu/handbook.
$\checkmark$ Join Us on 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 .2400 ext. 472.
- 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 .2400 ext. 343 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 276.523.7474 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 276.523.2400 ext. 324, or visit www. mecc.edu/transfer.
- Career Assistance. MECC offers student career counseling to help students determine their career goals and/or college major. Assistance includes computerized career assessments, career planning, employment preparation, resume development, interview and business etiquette, job search strategies, and more. 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

o Blackboard Help - Email Blackboard Support at skennedy@mecc. edu or call 276.523.7488 from 8 a.m. to $4: 30$ p.m. Monday-Friday.
o Student Information System (SIS), Student Email, Log-in, Password or Username Assistance - Email helpdesk@mecc.edu.

## College Success Skills and New Student Seminar

The College Success Skills course (SDV 100) is designed to improve students' success by acquainting new students with College policies, procedures and curricular offerings. Students are introduced to College resources and services that will assist them in making appropriate adjustments to their new academic environment. All curricular students, except those in career studies certificate programs, must enroll in SDV 100, 101, or 108, within the first 15 credit hours of enrollment. The requirement may be waived for students who hold an Associate Degree or Bachelor's Degree from a regionally accredited institution. Other requests for a waiver may be considered on a case-by-case basis. Students must still successfully complete the required number of credits for their degree. SDV 100 is delivered in a two-day format prior to the beginning of classes for each semester. All new students are required to attend. Requests for an alternate delivery format may be considered on a case-by-case basis. For more information, visit www.mecc.edu/newstudent.

## Academic Advising

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, the Office of Student Outreach and Success, or other faculty within the student's area of interest.

## 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 100). 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 Enrollment Services/Registrar, designee of the Vice-President of Academic and Student Services. Students placed on academic warning or academic probation may be required to take less than the normal course load.

## Extended Learning Institute

MECC also offers Shared Services Distance Learning (SSDL) courses through Northern Virginia Community College's Extended Learning Institute (ELI). Students have the opportunity to take unique online courses that offer a broader choice of career and educational content. Course descriptions are available on the Extended Learning Institute web site. The contact person for this program is Susan Kennedy, skennedy@mecc.edu.

## 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. Changes from credit to audit must be made by the official last day for students to withdraw from a class without penalty.

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. Students who wish to audit a course must follow the established College procedures.

## 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.

## 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 nonstandard sessions ends on that day which represents completion of fifteen percent of the class days.

## 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; 95-195295; 96-196-296; 97-197-297; 98-198-298; 99-199-299.)

Although all grades earned are reflected on students' transcripts, only the last grade earned (A, B, C, D or F) for a repeated course is counted in the computation of the cumulative GPA and for satisfying graduation requirements.

## Students Transferring from Other Colleges

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 will 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. Generally, no credit will be given for subjects with a grade 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. A student transferring with a BA/BS degree will receive credit for all nontechnical general education requirements in their curriculum.

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.

## Updating Personal Information

Students are responsible for maintaining their personal information while enrolled at MECC. Contact information such as address and phone number can be updated by visiting the Student Information System (SIS) at MECC Online or by completing an Information Change form located at the Enrollment Services Office in Godwin Hall. The Information Change form is also available online at www.mecc.edu/forms. Students who need to change their name or social security number must complete an Information Change form and submit the form along with appropriate documentation to the Enrollment Services Office.

## Tuition

## Tuition and Fees (Subject to Change)

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.

Under certain conditions, out-of-state residents who are employed or whose parents are employed within the Commonwealth of Virginia may be eligible for in-state tuition rates. Students should consult Enrollment Services/ Registrar for further details.

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 online 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.

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.

## Appeals Process for Applicants Denied InState Tuition

The initial assessment of eligibility for instate 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, Mountain Empire Community College offers the Tuition Management System (TMS) 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 20th 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 nonrefundable Tuition Management System (TMS) enrollment fee. Payments will be charged on the 20th 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 TMS 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 en-
rollment 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 20th of the month. If bank drafts fail for insufficient funds on any of the payments, you will be assessed a $\$ 25$ service fee by TMS and additional service fees assessed by your bank. TMS will attempt another draft on the 5 th 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 TMS 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. The bank account and routing information is listed on checks.

Terms and Conditions: A number of terms and conditions apply to the agreement with TMS. 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 Mountain Empire Community College.

For example: If the full amount of your down payment does not clear the bank, the contract with TMS will be immediately terminated and the payment amount satisfied by the contract with Mountain Empire 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 TMS 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, student 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

TMS. 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 cancelled) or add a class, to have the payment plan adjusted accordingly. In addition, the student may log in to their TMS Payment Plan account and request an adjustment to their balance resulting from changes in their class schedule or contact a TMS representative for assistance. No adjustments are made to any plan without authorization from the student.

Questions concerning the TMS Payment Plan should be addressed to the Business Office at 276.523.7475.

## Tuition and Fees Refunds

Students shall be eligible for a refund for those credit hours dropped during the same $\mathrm{add} / \mathrm{drop}$ 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.

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

## 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 NonPayment

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.

## Financial Information

## 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 Suite 157 of Godwin Hall. Application for most aid programs is possible by completing the Free Application for Federal Student Aid at www.fafsa.gov and the MECC Foundation Scholarship Application at http://www. mecc.edu/students/paying-for-college/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 www.fafsa.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 276.523.2400.
- 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)
- 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.

## Enrollment Requirements

To receive financial aid a student must be enrolled in a program 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; 9-11 credits yields 75\%; 6-8 credits yields $50 \%$. Students registered for less than 6 credits may also be considered for PELL and PTAP (for in-state students).

## 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 Expected Family Contribution (EFC) from the Student Aid Report (SAR), but is also affected by enrollment status. The EFC must be 5234 or less.

The maximum award for the 2016-2017 academic year is $\$ 5,815$, with a minimum of $\$ 598$. A minimum of 12 credit hours each semester is required to receive full eligibility, with pro-rated awards going to students with less than 12 credit hours. Eligible students will be awarded once the Free Application for Federal Student 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 EFCs). FSEOG awards generally are for $\$ 400$. Eligible students will be awarded once the FAFSA and any required documentation have been received on a firstcome, first-served 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, firstserved 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 halftime 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 $\$ 800$ to $\$ 2,000$ 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 G.P.A in high school, have exceptional financial need and maintain full-time enrollment as a dependent student. Awards vary from $\$ 900$ to $\$ 2,100$ 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/ index.htm.

## Virginia Tobacco Settlement Program:

 This program assists Virginia resident tobacco producers, quota owners, their family members (descendants), and former employees of the tobacco processing industry with the cost of attending credit classes. Students must file a FAFSA to be considered for this program. More information is available at www.mecc.edu/students/paying-forcollege/scholarships/.AIMS Scholarship: The AIMS Scholarship is funded by the Virginia Tobacco Commission. 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/.

## Veterans Information

Enrollment Services/Veterans Affairs provides services to veterans and dependents enrolled at the College. Assistance is primarily provided with receipt of veteran's educational benefits. Enrollment Services/Veterans Affairs is located in Godwin Hall, Room G161. Enrollment Services/Veterans Affairs is not a part of the Veterans Administration Regional Office.

## Application Procedure

The veteran may apply for educational benefits on-line at www.gibill.va.gov or by com-
pleting VA Form 22-1990, at Enrollment Services/Veterans Affairs. Copies of discharge papers (DD Form 214, Member 4) should accompany the application. (If you do not have your DD214, Enrollment Services/Veterans Affairs will assist you in obtaining a copy or any other information you may need from your military records).

The spouse or dependent of a veteran may apply for educational benefits online at www. gibill.va.gov or by completing VA Form 225490, at Enrollment Services/Veterans Affairs.

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

To ensure smooth processing of VA claims, it is important to apply early. Applicants should receive notification from the Department of Veterans Affairs in approximately 30 to 60 days after an application is submitted. A copy of the Certificate of Eligibility should be submitted to Enrollment Services/Veterans Affairs.

## Enrollment Certification

VA recipients must be enrolled in an approved program of study. In order to receive monthly payments, the veteran must be enrolled at least half time.. Post $9 / 11$ G.I. Bill recipients must be enrolled in at least $51 \%$ of a full course load in order to receive the monthly housing allowance. The College will certify enrollment as full-time at 12 credit hours and 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 Enrollment Services/Veterans Affairs for certification information for short or special sessions.

Upon completion of enrollment, submit the MECC Certification Request for VA Educational Benefits form to Enrollment Services/ Veterans Affairs.

VA recipients should notify Enrollment Ser-
vices/Veterans Affairs of any changes in enrollment that occur after benefits have been certified to the Department of Veterans Affairs.

## 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 http:// www.dvs.virginia.gov/education-employ-ment/virginia-military-survivors-and-depen-dents-education-program/.

## Virginia Orphans of Emergency Personnel

The Virginia Orphans of Emergency Personnel Program provides free tuition and required fees for children of certain law enforcement officers, rescue squad members, and fire fighters who have been killed in the line of duty.
Eligibility requirements are:

- The applicant must be no less than 16 years of age, or no more than 25 years of age.
- One of the applicant's parents must have been a resident of the Commonwealth of Virginia at the time of death.
- The applicant shall have been offered admission to a public institution of higher education.

See Enrollment Services/Admission for more information.

## Senior Citizens Higher Education Act of 1974

The Senior Citizens Higher Education Act of 1974 has established specific fee waiver provisions for Virginia residents who have reached 60 years of age and wish to attend classes at a state-supported institution of higher education. Students who wish to apply for this waiver must contact the MECC Enrollment Services Office at 276.523.7474.
To be eligible for free tuition and fees for credit courses, part-time or full-time, a person must meet the following criteria:

- Be 60 years of age or older;
- Be a domiciled resident of Virginia for at least one year;
- Have a taxable income not exceeding $\$ 23,850$ for federal income tax purposes for the year proceeding the year in which enrollment is sought.

To be eligible for free tuition for audit of credit courses or for taking non-credit courses (not to exceed three courses per semester), a person must meet the following criteria:

- Be 60 years of age or older;
- Be a domiciled resident of Virginia for at least one year
- Be admitted to the College as a student


## 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 Fines

In order to encourage students and community library users to return materials promptly, fines are charged on overdue materials. Library fines are charged at the following rates per item:

- Circulating, Juvenile, Oversize collections items, print newspaper and magazine issues, and distance education DVDs and videos -- $\$ 0.10$ per day
- Two-Hour Reserve items -- $\$ 0.25$ per hour
- Overnight and One-Week Reserve items -$\$ 0.25$ per day
- The maximum fine charged per item is $\$ 5$.
- Lost materials are billed at the purchase price of the materials plus a processing fee of $\$ 5$ per item for book jacket covers, spine labels, barcodes, date due pockets and cards, and cataloging service fees.

As a reminder, students and community residents will receive three overdue notices when library materials have not been returned. The first two notices will be sent to students' and community members' email accounts. When the third and final notice is mailed, 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 and fines owed on them have been paid. Students and community residents who have unpaid library fines will not be allowed to check out additional items from the library until the fines have been paid unless special permission has been granted by the staff for them to do so.

As required by the Commonwealth of Virginia, unpaid debts for overdue 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 having overdue materials and fines, call 276.523.7468 to renew library materials.

## 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.

## 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
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 satisfactory 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 de-
fault 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 and Student Services.

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 MECC Online 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 MECC Online.

## Transcripts

To request that an official transcript of academic record be sent to other institutions or business firms, the student should secure the Request for Official Transcript of Grades form at Enrollment Services or via MECC Online. Requests for Official Transcript of Grades should be submitted at least 5 business days before the transcript is required. Official transcripts are generally processed within three business days of receipt, and mailed to the address provided. During peak times such as beginning and end of term, processing time will likely be extended. Due to
the magnitude of transcript requests received, the Enrollment Services Office does not notify students when transcript requests have been processed. Mountain Empire Community College does not impose a fee for transcripts. Requests for transcripts via phone are not accepted.

Requests for unofficial student grade reports will be honored at any time during regular office hours. Unofficial transcripts will be faxed directly to offices of other educational institutions, employers, and the military. Incomplete transcripts will not be released. 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, Godwin 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.

## 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 \& Student Services. 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 normally is permanent. In exceptional circumstances stu-
dents 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.

## 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 last 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. Grades of "S", "P", "U", "W," "X," and "I" shall not count as first or subsequent attempts when calculating cumulative grade point average. 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 in order to replace the original grade in the cumulative grade point average calculation.

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 course. 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.


## 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;
- File an official application for graduation with the Registrar, which may be waived in the case of the General Education Certificate; and
- Resolve all financial obligations to the College and return 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.


## Academic Programs and 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 \& Sciences

The Associate of Arts and Sciences Degree (AA\&S) is awarded to students majoring in business administration, education, 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.

- Business Administration
- Pre-Teacher Education
- General Studies
- General Studies-Software Engineering
- Science
- Science - Engineering


## 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.

- Administrative Support Technology
- Administrative Support Technology Medical Office Specialist
- Computer Networking Technology
- Computer Software Specialist
- Computer-Aided Drafting and Design Technology
- Computer-Aided Drafting and Design Technology - Mapping Specialization
- Computerized Manufacturing Technology
- Computerized Manufacturing Technology -- Electromechanical Technology Specialization
- Computerized Manufacturing Technology
- Industrial Electronics Specialization
- Correctional Services
- Emergency Medical Services Technology
- Energy Technology
- Energy Technology - Electrical Specialization
- Environmental Science
- Environmental Science - Water/ Wastewater Specialization
- Forest Science
- Health Information Management
- Management
- Nursing Track One Two Year Plan
- Nursing Track Two Part-Time Evening Weekend
- Nursing Track Three LPN to RN Bridge Program
- Nursing Track Four Part-Time LPN to RN Bridge Program
- Paralegal Studies
- Police Science
- Respiratory Therapy
- Welding


## State and Regional Cooperative Degree Programs

- Medical Laboratory Technology (WCC)
- Occupational Therapy Assistant (SWCC)
- Physical Therapy Assistant (WCC)
- Radiography Technology (SWCC)


## 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.

- Administration of Justice - Corrections Option
- Administration of Justice - Law Enforcement Option
- Air Conditioning and Refrigeration
- Clerical Assistant
- General Education
- Industrial Maintenance
- Legal Office Assisting
- Medical Office Coding and Procedures
- Nursing - Practical Nursing
- Welding


## 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.

- 3D Design
- Air Conditioning \& Refrigeration
- Building Construction - Electrical Emphasis
- Chemical Process Operator
- Child Development
- Child Development - Infant \& Toddler Option
- Child Development - Pre-School Option
- Clinical Research Coordinator
- Computer Software Specialist - Mobile App Development
- Construction
- Corrections Management and Supervision
- Electricity
- Emergency Medical Technician
- Emergency Medical Technician Intermediate
- Emergency Medical Technician Paramedic
- Energy Technology - Electrical Emphasis
- Energy Technology - HVAC Emphasis
- Geographical Information Systems
- Health Sciences
- Help Desk Support
- Information Technology Readiness
- Law Enforcement Management and Supervision
- Machinery Maintenance
- Medical Records Technician
- Medical Receptionist \& Transcriptionist
- Nursing Assistant (With Enhanced Skills)
- Old Time Music
- Pharmacy Technician
- Phlebotomy
- Real Estate
- Small Business Management
- Software Development I
- Software Development II
- Wastewater Plant Operator
- Water Plant Operator
- Welding Operator

State and Regional Cooperative Career
Studies Certificate Programs

- Computed Tomography


## Understanding Program Options \& 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 \& Sciences Degree (AA\&S)

The AA\&S 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.

## 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 Science degree 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.

## General Education Core Competencies

General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The associate degree programs within the VCCS support a collegiate experience that focuses on seven goal areas: communication; critical thinking; cultural and social understanding; information literacy; personal development; quantitative reasoning; scientific reasoning. The general education goal areas outlined below are to be introduced in the foundational courses and enhanced in program and elective courses. (NOTE: Some of the categories include two goal areas when a single course may provide foundations in both goal areas.) Students must take at least one course in each of the five areas listed, to total at least 15 credits. Source: VCCS Degree Requirements, Table $5-1 \mathrm{~A} \& B$.

- Foundations in Communication: Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood.
- Foundations in Critical Thinking and Information Literacy: Courses designed to enable students to evaluate evidence carefully and apply reasoning to decide what to believe and how to act, and to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.
- Foundations in Cultural and Social Understanding: Courses designed to enable students to have an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities.
- Foundations in Personal Development: Courses designed to enable students to strive for physical well-being and emotional maturity.
- Foundations in Quantitative And Scientific Reasoning: Courses designed to enable students to possess the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues, and to adhere to a self-correcting system of inquiry (the scientific method) and rely on
empirical evidence to describe, understand, predict, and control natural phenomena.


## Core Competency Requirements

Embedded in all degree programs are core competencies covering communication, quantitative and scientific reasoning, critical thinking, information literacy, cultural and social understanding, and personal development. Students may be required to take an assessment of core competencies as a requirement for graduation.

## Program Requirements

- Major Field Core: Min. 15 cr.*
- Related/Specialization Courses Max. 15 cr.
- Electives, 0-15 credits
- Totals: AA\&S: 60-63 cr.; AAS: 65-69 cr.**
*Language in Section 5.1.0.0.1 of the VCCS Policy Manual states $25 \%$ of the courses in the degree program (15-18 credits) must be common across majors within a degree. The shared courses must be major or related/specialization courses.
**Credit range for AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is $65-72$ semester hour credits.


## 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 Sciences, 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-todate information on course offerings.

## Table 5-1A VCCS Degree Requirements

| Area |  | Distribution |
| :---: | :---: | :---: |
| GENERAL EDUCATION <br> General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The associate degree programs within the VCCS support a collegiate experience that focuses on seven goal areas: communication; critical thinking; cultural and social understanding; information literacy; personal development; quantitative reasoning; scientific reasoning.) The general education goal areas outlined below are to be introduced in the foundational courses and enhanced in program and elective courses. (NOTE: Some of the categories include two goal areas when a single course may provide foundations in both goal areas.) |  | Minimum 15 credits (Students must take at least one course in each of the five areas listed, to total at least 15 credits.) |
| I. Foundations In Communication: Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood. | II. Foundations In Critical Thinking And Information Literacy: <br> Courses designed to enable students to evaluate evidence carefully and apply reasoning to decide what to believe and how to act, and to recognize when information is needed and have the ability to locate, evaluate, and use it effectively. |  |
| III. Foundations In Cultural And Social Understanding: <br> Courses designed to enable students to have an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. | IV. Foundations In Personal Development: <br> Courses designed to enable students to strive for physical wellbeing and emotional maturity. |  |
| V. Foundations In Quantitative And Scientific Reasoning: <br> Courses designed to enable students to possess the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues, and to adhere to a self-correcting system of inquiry (the scientific method) and rely on empirical evidence to describe, understand, predict, and control natural phenomena. |  |  |
| PROGRAM REQUIREMENTS <br> Major Field Core <br> Related/Specialization Courses Electives |  | Minimum 15 credits* Maximum 15 credits $0-15$ credits |
| TOTALS |  | AA/AS/AA\&S: <br> 60-63 credits** |
|  |  | AAA/AAS: <br> 65-69 credits*** |

*Language in Section 5.1.0.0.1 of the VCCS Policy Manual states $25 \%$ of the courses in the degree program (15-18 credits) must be common across majors within a degree. The shared courses must be major or related/specialization courses.
** Credit range for engineering programs is 60-72 semester hour credits.
*** Credit range for AAA/AAS programs is $65-69$, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

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

| General Education: |  |  | Minimum Number of Semester Hour Credits |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (1) AA | $\begin{aligned} & (2) \\ & \text { AS } \end{aligned}$ | (3) <br> AA\&S | (4) <br> AAA / AAS |
| Communication ${ }^{(a)}$ | 6 | 6 | 6 | 3 |
| Humanities / Fine Arts | 6 | 6 | 6 | 3 |
| Foreign Language (Intermediate Level) | 6 | 0 | 0 | 0 |
| Social / Behavioral Sciences | 9 | $9^{(b)}$ | 9 | $3^{(c)}$ |
| Natural Sciences / | 7 | 7 | 7 | 0 |
| Mathematics | 6 | $6^{(d)}$ | $6^{(d)}$ | $0 \quad 33^{\text {c }}$ ) |
| Personal Development ${ }^{(\mathrm{e})}$ | 2 | 2 | 2 | 2 |
| Other Requirements for Associate Degrees: |  |  |  |  |
| Major field courses and electives (columns 1-3) Career/technical courses (column 4) | 18-21 | 24-27 | 24-27 | $49-53{ }^{(f)}$ |
| Total for Degree ${ }^{(\mathrm{g})}=$ | 60-63 | $60-63^{(\mathrm{h})}$ | $60-63^{(\mathrm{h})}$ | $65-69^{(\mathrm{h})}$ |

Notes: The VCCS Policy Manual, Section 2-IV-C, defines general education within the VCCS. Sections 2.7.3, 3.4.10, and 3.5.1 of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Principles of Accreditation specify general education requirements. Colleges must address all SACS requirements, the SCHEV Core Competencies, and the general education goal areas listed in this VCCS Policy Manual.
${ }^{(a)}$ Must include at least one course in English composition.
${ }^{(b)}$ Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.
${ }^{(c)}$ While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACSCOC principles require that general education courses be general in nature and must not "... narrowly focus on those skills, techniques, and procedures peculiar to a particular occupation or profession."
${ }^{(d)}$ Only 3 semester hours of mathematics are required for the General Studies major.
${ }^{(e)}$ Personal development includes health, physical education, or recreation courses that promote physical and emotional well- being and student development courses. Must include at least one student development course.
${ }^{(f)}$ AAA/AAS degrees must contain a minimum of 15 semester hours of general education. Students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.
${ }^{(g)}$ All college-level course prerequisites must be included in the total credits required for each program.
${ }^{(h)}$ Credit range for engineering programs is $60-72$ semester hour credits. Credit range for AAA/AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

## 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

Each of the following courses may be used as electives in order to graduate from Mountain Empire Community College. Be certain to check with MECC's Transfer Services, located in the Office of Student Services (Holton Hall), to confirm if a course will transfer.

## Humanities Electives

ART 100 Art Appreciation
ART 101, 102 History and Appreciation of Art (may be taken out of sequence)
ENG 211 Creative Writing
ENG 241, 242 Survey of American Literature (may be taken out of sequence)
ENG 243, 244 Survey of English Literature (may be taken out of sequence)
ENG 251, 252 Survey of World Literature (may be taken out of sequence)
ENG 256 Literature of Science Fiction
ENG 278 Appalachian Literature
ENG 281 American Folklore
HUM 153 Introduction to Appalachian Studies
HUM $100 \quad$ Survey of the Humanities
HUM 111, $112 \quad$ Great Books (may be taken out of sequence)
HUM 201, 202 Survey of Western Culture (may be taken out of sequence)
HUM 212 Survey of American Culture II
HUM 218 Survey of Horror
HUM $260 \quad$ Survey of Twentieth Century Culture
MUS 121 Music Appreciation
PHI 211, 212 History of Western Philosophy (may be taken out of sequence)
REL 100 Introduction to the Study of Religion
REL 200 Survey of Old Testament
REL 210 Survey of New Testament
REL 231, 232 Religions of the World (may be taken out of sequence)
REL 233 Introduction to Islam
REL 240 Religions in America

## Foreign Language Electives

FRE 101, 102 Beginning French (must be taken in sequence)
SPA 101, 102 Beginning Spanish (must be taken in sequence)

## Art Electives

ART 121, $122 \quad$ Drawing (must be taken in sequence)
ART 125 Introduction to Painting
ART 131, 132 Fundamentals of Design (may be taken out of sequence)
ART 180 Introduction to Computer Graphics
ART 283 Computer Graphics I

## HLT/PED Electives

PED 101, 102 Fundamentals of Physical Activity
PED 103, 104 Aerobic Fitness I \& II
PED 109 Yoga
PED 111, $112 \quad$ Weight Training I \& II
PED 116 Lifetime Fitness and Wellness
PED 123, 124 Tennis I \& II
PED 125 Badminton
PED 126 Archery
PED 133, 134 Golf I \& II
PED 154 Volleyball
PED 155 Walleyball
HLT 110 Concepts of Personal and Community Health
HLT 116 Personal Wellness

## Social Science Electives

ECO 201, 202 Principles of Economics (may be taken out of sequence)
GEO 210 Introduction to Cultural Geography
HIS 101, 102 History of Western Civilization (may be taken out of sequence)
HIS 121, 122 United States History (may be taken out of sequence)
HIS 225 Topics in European History
HIS 262 American History through Film
HIS 267 The Second World War
HIS 269 Civil War and Reconstruction
HIS $276 \quad$ United States History Since World War II
PLS 211, $212 \quad$ U. S. Government (may be taken out of sequence)
PSY $200 \quad$ Principles of Psychology
PSY 215 Abnormal Psychology
PSY 230 Developmental Psychology
PSY 231, 232 Life Span Human Development (may be taken out of sequence)
PSY $235 \quad$ Child Psychology
SOC $200 \quad$ Principles of Sociology
SOC 215 Sociology of the Family
SOC 268 Social Problems

## Associate of Arts \& Sciences Degree

The Associate of Arts and Sciences Degree (AA\&S) is awarded to students majoring in business administration, education, general studies, science, or software engineering who plan to transfer to a four-year college or university. Visit www.mecc.edu/programs for detailed administrative and contact information.

- College/University Transfer - Business Administration
- College/University Transfer - Pre-Teacher Education
- College/University Transfer - General Studies
- College/University Transfer - General Studies -

Software Engineering Specialization

- College/University Transfer - Science
- College/University Transfer - Science - Engineering Specialization



## Associate of Arts \& Sciences Degree College/University Transfer - Business Administration Major (216)

## Program Description

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 Associate of Arts \& Sciences degree also prepares you to enter pre-professional programs in the areas of Dentistry, Law, Medical Technology, Medicine, Pharmacy, Physical Therapy, and Radiologic Technology.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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276.523.2400 ext. 230

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276.523.2400 ext. 243

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| HIS | $\begin{aligned} & 101 \text { or } \\ & 121 \end{aligned}$ | History of Western Civilization I or United States History \| | 3 |  |
| MTH | 163 | Pre-Calculus I | 3 |  |
| Science |  | Biology, Chemistry or Physics ${ }^{4}$ | 4 |  |
| ITE | 119 | Information Literacy ${ }^{3}$ | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| ENG | 112 | College Composition II | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| HIS | 102 <br> 122 | History of Western Civilization <br> II or United States History II | 3 |  |
| MTH | 271 | Applied Calculus | 3 |  |
| Science |  | Biology, Chemistry or Physics | 4 | 4 |
| HLTT/ <br> PED |  | Health/hhysical Education | 1 |  |

## SECOND YEAR FALL

| ACC | 211 | Principles of Accounting I | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| ECO | 201 | Principles of Economics I 1 | 3 |  |
| ENG |  | Literature 241, 243, 251 |  | 3 |
| CST | 100 or <br> 105 | Principles of Public Speaking <br> or Oral Communication | 3 |  |
|  |  | College Transfer Elective | 3 |  |

SECOND YEAR SPRING

| ACC | 212 | Principles of Accounting II | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| ECO | 202 | Principles of Economics II |  |  |
| ENG |  | Literature 242, 244, or $252^{2}$ | 3 |  |
|  |  | College Transfer Electives | 6 |  |
| Total Minimum Credits for Degree |  |  |  |  |

${ }^{1}$ 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. ${ }^{2}$ At least one semester of World Literature (ENG 251-252) is recommended. ${ }^{3}$ All students pursuing an Associate of Arts and Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test. ${ }^{4}$ Students should consult with their academic advisor to select courses required by their desired degree at their transfer institution.

## Associate of Arts \& Sciences Degree College/University Transfer - Pre-Teacher Education (624)

## Program Description

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 Associate of Arts \& Sciences degree also prepares you to enter pre-professional programs in the areas of Dentistry, Law, Medical Technology, Medicine, Pharmacy, Physical Therapy, and Radiologic Technology.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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276.523.2400 ext. 252

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## PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| Course \# |  |  |  |  |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |  |  |  |  |
| HIS | 101 | History of Western Civilization I | 3 |  |  |  |  |  |
| MTH | 151 | Mathematics for the Liberal <br> Arts I | 3 |  |  |  |  |  |
| HLT/ <br> PED | Health/Physical Education | 1 |  |  |  |  |  |  |
| ITE | 119 | Information Literacy ${ }^{2}$ | 3 |  |  |  |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |  |  |  |

FIRST YEAR SPRING

| ENG | 112 | College Composition II | 3 |  |
| :---: | :---: | :---: | :---: | :---: |
| HIS | $\begin{aligned} & 102 \text { or } \\ & 122 \\ & \hline \end{aligned}$ | History of Western Civilization \|| or United States History || ${ }^{1}$ | 3 |  |
| MTH | $\begin{array}{\|l\|l\|} \hline 152 \text { or } \\ 157 \\ \hline \end{array}$ | Mathematics for the Liberal Arts II or Elementary Statistics ${ }^{1}$ | 3 |  |
| PLS | $\begin{aligned} & \hline 135 \text { or } \\ & 211 \end{aligned}$ | American National Politics or U.S. Government I | 3 |  |
|  |  | Humanities Elective ${ }^{1}$ | 3 |  |

SECOND YEAR FALL

| EDU | 200 | Introduction To Teaching | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| HIS | 121 | U.S. History I | 3 |  |
| ECO | 201 or <br> 202 | Principles of Economics I <br> or II |  |  |
| BIO | 101 | General Biology I $_{3}$ |  |  |
| HUM |  | Elective $^{1}$ | 4 |  |

SECOND YEAR SPRING

| GEO | 210 | Introduction to Cultural Geography | 3 |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|l\|} \hline \begin{array}{l} \mathrm{BOO} \\ \mathrm{CHM} \end{array} \\ \hline \end{array}$ | B101020r CHM 101 | General Biology II or General Chemistry 1 | 4 |  |
|  |  | Elective ${ }^{1}$ | 3 |  |
| ENG |  | English Survey ${ }^{1}$ | 3 |  |
| CST | $\begin{aligned} & 100 \text { or } \\ & 110 \end{aligned}$ | Principles of Public <br> Speaking or Intro to Speech <br> Communication ${ }^{1}$ | 3 |  |
| Total Minimum Credits for Degree |  |  | 61 |  |

${ }^{1}$ Select according to requirements of transfer institution. Contact your advisor to determine appropriate course selections. Consult the MECC website for up-to-date guidelines on Teacher Education and for information related to the teaching profession. ${ }^{2}$ All students pursuing an Associate of Arts and Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test.

## Associate of Arts \& Sciences Degree College/University Transfer - General Studies Major (697)

## Program Description

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 Associate of Arts \& Sciences degree also prepares you to enter pre-professional programs in the areas of Dentistry, Law, Medical Technology, Medicine, Pharmacy, Physical Therapy, and Radiologic Technology.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| HIS | $\begin{aligned} & \hline 101 \text { or } \\ & 121 \end{aligned}$ | History of Western Civilization I or United States History \| | 3 |  |
| MTH | $\begin{aligned} & \hline 151 \text { or } \\ & 163 \\ & \hline \end{aligned}$ | Mathematics for the Liberal Arts I or Pre-Calculus ${ }^{3}$ | 3 |  |
| Science |  | Biology, Chemistry or Physics ${ }^{4}$ | 4 |  |
| ITE | 119 | Information Literacy ${ }^{2}$ | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ENG | 112 | College Composition II | 3 |  |
| HIS | $\begin{aligned} & 102 \text { or } \\ & 122 \end{aligned}$ | History of Western Civilization II or United States History \|| | 3 |  |
| MTH | $\begin{aligned} & \hline 152 \text { or } \\ & 164 \\ & \hline \end{aligned}$ | Mathematics for the Liberal Arts II or Pre-Calculus \|| ${ }^{3}$ | 3 |  |
| Science |  | Biology, Chemistry or Physics ${ }^{4}$ | 4 |  |
|  |  | College Transfer Elective | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
|  |  | Social Science Elective ${ }^{1}$ | 3 |  |
|  |  | Humanities Elective ${ }^{4}$ | 3 |  |
| CST | $\begin{aligned} & 100 \text { or } \\ & 105 \\ & \hline \end{aligned}$ | Principles of Public Speaking or Oral Communication ${ }^{1}$ | 3 |  |
|  |  | College Transfer Electives | 6 |  |

## SECOND YEAR SPRING

| HLT/ <br> PED |  | Health/Physical Education | 1 |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Social Science Elective $^{1}$ | 3 |  |
|  |  | Humanities Elective |  | 3 |
|  |  | College Transfer Electives | 6 |  |
|  | Total Minimum Credits for Degree | 61 |  |  |

${ }^{1}$ 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. ${ }^{2}$ All students pursuing an Associate of Arts and Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test. ${ }^{3}$ Students may select MTH 157 or MTH 271 if appropriate to their transfer institution. See advisor to select appropriate math sequence. ${ }^{4}$ Students should consult with their academic advisor to select courses required by their desired degree at their transfer institution.

## Associate of Arts \& Sciences Degree College/University Transfer - General Studies Software Engineering Specialization (697-09)

## Program Description

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.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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## PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| HIS | 101 | History of Western Civilization I | 3 |  |
| MTH | 273 | Calculus I | 4 |  |
| ITE | 119 | Information Literacy ${ }^{3}$ | 3 |  |
|  |  | Social Science Elective ${ }^{1}$ | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ENG | 112 | College Composition II | 3 |  |
| HIS | 102 | History of Western Civilization II | 3 |  |
| MTH | 157 | Elementary Statistics | 3 |  |
| MTH | 274 | Calculus II | 4 |  |
|  |  | College Transfer Elective | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| ENG |  | English Survey ${ }^{2}$ | 3 |  |
| PHY | 241 | University Physics I | 4 |  |
| CST | 100 | Principles of Public Speaking | 3 |  |
| ITP | 132 | C++ Programming I | 3 |  |
| MTH | 275 | Multivariable Calculus/Linear Algebra | 4 |  |
| SECOND YEAR SPRING |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { HLT/ } \\ \text { PED } \\ \hline \end{array}$ |  | Health/Physical Education | 1 |  |
| ENG |  | English Survey ${ }^{2}$ | 3 |  |
| MTH | 286 | Discrete Mathematics | 4 |  |
| ITP | 232 | C++ Programming II | 3 |  |
| PHY | 242 | University Physics II | 4 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

${ }^{1}$ 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 sophomore social science if required by the four-year college or university to which you plan to transfer ${ }^{2}$ At least one semester of World Literature (ENG 251-252) is recommended. ${ }^{3}$ All students pursuing an Associate of Arts \& Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test.

## Associate of Arts \& Sciences Degree College/University Transfer - Science Major (881)

## Program Description

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 Associate of Arts \& Sciences degree also prepares you to enter pre-professional programs in the areas of Dentistry, Law, Medical Technology, Medicine, Pharmacy, Physical Therapy, and Radiologic Technology.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| Course \# |  |  |  |  |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |  |  |  |  |
| HIS | 101 <br> 121 <br> 121 | History of Western Civilization <br> I or United States History I | 3 |  |  |  |  |  |
| MTH | 163 | Pre-Calculus I or higher MTH | 3 |  |  |  |  |  |
| Science |  | Biology, Chemistry or Physics $^{4}$ | 4 |  |  |  |  |  |
| ITE | 119 | Information Literacy $^{3}$ | 3 |  |  |  |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |  |  |  |

FIRST YEAR SPRING

| ENG | 112 | College Composition II | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| HIS | 102 <br>  <br> 122 | History of Western Civilization <br> II or United States History II | 3 |  |
| Science |  | Biology, Chemistry or Physics | 4 |  |
| MTH | 164 | Pre-Calculus IIor higher MTH | 3 |  |
| CST | 100 or <br> 105 | Principles of Public Speaking <br> or Oral Communication 1 | 3 |  |

## SECOND YEAR FALL

| ENG |  | Literature (241, 243, or 251) ${ }^{1}$ | 3 |  |
| :---: | :---: | :---: | :---: | :---: |
| Science |  | Biology, Chemistry or Physics ${ }^{4}$ | 4 |  |
| MTH | 273 | Calculus Ior approved MTH | 4 |  |
|  |  | College Transfer Electives | 3 |  |
|  |  | Personal Development Elective | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ENG |  | Literature (242, 244, or 252) ${ }^{1}$ | 3 |  |
| Science |  | Biology, Chemistry or Physics ${ }^{4}$ | 4 |  |
| MTH | 274 | Calculus II or approved MTH | 4 |  |
|  |  | Social Science Elective ${ }^{2}$ | 3 |  |
| Total Minimum Credits for Degree |  |  | 62 |  |

${ }^{1}$ At least one semester of World Literature (ENG 251-252) is recommended. ${ }^{2}$ 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. ${ }^{3}$ All students pursuing an Associate of Arts \& Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test. ${ }^{4}$ Students should consult with their academic advisor to select courses required by their desired degree at their transfer institution.

## Associate of Arts \& Sciences Degree College/University Transfer - Science - Engineering Specialization (881-01)

## Program Description

This program is designed to provide the first two years of a degree in engineering. Students who are planning to transfer into engineering programs at four-year institutions are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and to consult with their advisor at Mountain Empire Community College in planning their program. Classes in this specialization designated as EGR (Engineering) are offered by Virginia Highlands Community College and are delivered on the MECC campus using distance learning technology. Some of the higher-level math classes may also be delivered by distance technology.

## Program Requirements

Entry into the program requires the satisfactory completion of four (4) units of high school English, two (2) units of high school algebra, one (1) unit of geometry, one (1) unit of laboratory science, and one (1) unit of social science or their equivalent. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses. Students are encouraged to check the mathematics requirements of the four-year college or university to which you plan to transfer to determine the appropriate courses to be taken at MECC, as well as to determine the transferability of electives. Students planning to transfer should schedule an appointment with MECC's Transfer Services Counselor at 276.523.2400 ext. 324.

For Further Information Contact:
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: | :---: |
| Course \# |  |  |  |  |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |  |  |  |  |
| HIS | 101 or <br> 121 | History of Western Civilization <br> I or United States History I | 3 |  |  |  |  |  |
| MTH | 177 | Introduction to Linear Algebra | 2 |  |  |  |  |  |
| CHM | 111 | College Chemistry I | 4 |  |  |  |  |  |
| MTH | 273 | Calculus I | 4 |  |  |  |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |  |  |  |

FIRST YEAR SPRING

| ENG | 112 | College Composition II | 3 |  |
| :--- | :--- | :--- | :---: | :---: |
| HIS | 102 or <br> 122 | History of Western Civilization <br> II or United States History II | 3 |  |
| EGR | 140 | Engineering Mechanics - <br> Statics | 3 |  |
| MTH | 274 | Calculus II | 4 |  |
| EGR | 120 | Introduction to Engineering | 1 |  |
| CST | 100 | Principles of Public Speaking | 3 |  |

## SECOND YEAR FALL

| ENG |  | Literature (241, 243, or 251) $^{1}$ | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| PHY | 241 | University Physics I | 4 |  |
| MTH | 277 | Vector Calculus | 4 |  |
| EGR | 245 | Engineering Mechanics - <br> Dynamics | 3 |  |
|  |  | Social Science Elective ${ }^{2}$ | 3 |  |
| HLT/ <br> PED |  | Health/Physical Education | 1 |  |

SECOND YEAR SPRING

| ENG |  | Literature (242, 244, or 252) $^{1}$ | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| ITP | 120 or <br> 132 | Java Programming I or C++ <br> Programming ${ }^{3}$ | 3 |  |
| MTH | 279 | Ordinary Differential Equations | 4 |  |
| PHY | 242 | University Physics II | 4 |  |
| EGR | 246 | Mechanics of Materials | 3 |  |
| Total Minimum Credits for Degree | 69 |  |  |  |

${ }^{1}$ At least one semester of World Literature (ENG 251-252) is recommended. ${ }^{2}$ 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. ${ }^{3}$ All students pursuing an Associate of Arts \& Sciences degree must demonstrate information literacy by completing ITE 119, by satisfying the terms of an articulation agreement, or by establishing competency on an approved assessment test.

## Associate of Applied Science Degree

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

- Administrative Support Technology
- Administrative Support Technology - Medical Office Specialist
- Computer Networking Technology
- Computer Software Specialist
- Computer-Aided Drafting and Design Technology
- Computer-Aided Drafting and Design Technology - Mapping Specialization
- Computerized Manufacturing Technology
- Computerized Manufacturing Technology - Electromechanical Technology Specialization
- Computerized Manufacturing Technology - Industrial Electronics Specialization
- Correctional Services
- Emergency Medical Services Technology
- Energy Technology
- Energy Technology - Electrical Specialization
- Environmental Science
- Environmental Science -- Water/ Wastewater Specialization
- Forest Science
- Health Information Management
- Management
- Nursing Track One Two Year Plan
- Nursing Track Two Part-Time Evening Weekend
- Nursing Track Three LPN to RN Bridge Program
- Nursing Track Four Part-Time LPN to RN Bridge Program
- Paralegal Studies
- Police Science
- Respiratory Therapy
- Welding



## Associate of Applied Science Degree Administrative Support Technology (298)

## Program Description

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 Certified Administrative Professional (CAP).

## Opportunities For Employment

Administrative Support Technologiests work in office support positions and perform a variety of office tasks. Employers seek workers who have excellent computer application skills, communication and interpersonal skills, decision-making and critical thinking skills, and teamwork skills. Job opportunities as executive secretary, administrative assistant, receptionist, word processing specialist, and office support technician are available locally, regionally, and nationally.

## Program Requirements

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 advisor.

For Further Information Contact:

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |
| ACC | 115 | Applied Accounting | 3 |  |
| AST | 107 | Editing/Proofreading Skills | 3 |  |
| AST | 141 | Word Processing I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| ACC | 215 | Computerized Accounting | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| AST | 137 | Records Management | 3 |  |
| AST | 238 | Word Processing Advanced <br> Operations | 3 |  |
| MTH | 141 | Business Mathematics I | 3 |  |
|  |  | Humanities Elective ${ }^{1}$ | 3 |  |
| PSY | 120 | Human Relations | 3 |  |

SECOND YEAR FALL

| AST | 205 | Business Communications ${ }^{2}$ | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| AST | 236 | Spec. Software Apps | 3 |  |
| AST | 243 | Office Administration I | 3 |  |
| BUS | 205 | Human Resource <br> Management | 3 |  |
| BUS | 241 | Business Law I | 3 |  |
| MKT | 170 | Customer Service | 1 |  |
| SDV | 106 | Preparation for Employment | 1 |  |

SECOND YEAR SPRING

| AST | 108 | Telephone Techniques | 1 |  |
| :--- | :--- | :--- | :--- | :--- |
| AST | 244 | Office Administration II | 3 |  |
| AST | 260 | Presentation Software | 3 |  |
| AST | 290 | Internship in AST | 3 |  |
| MKT | 260 | Customer Service <br> Management | 3 |  |
|  | Humanities or Social Science <br> Elective1 | 3 |  |  |
| Total Minimum Credits for Degree | 67 |  |  |  |

${ }^{1}$ Consult with advisor: ${ }^{2}$ BUS 236 may be substituted for AST 205.

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## Associate of Applied Science Degree

 Administrative Support Technology - Medical Office Specialist (298-02)
## Program Description

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 to provide the knowledge and skills necessary for effective job performance in entry-level medical office administrative support positions.

## Opportunities For Employment

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

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 advisor.

For Further Information Contact:
Jane Jones
jjones@mecc.edu
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |
| AST | 107 | Editing and Proofreading Skills | 3 |  |
| AST | 141 | Word Processing I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| HIM | 111 | Medical Terminoogy I | 3 |  |
| HIM | 130 | Healthcare Information <br> Systems | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| AST | 238 | Word Processing Advanced? | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| HIM | 112 | Medical Terminology II | 3 |  |
| HIM | 150 | Health Records | 3 |  |
| HIM | 230 |  <br> Technology in Health Care | 3 |  |
| MTH | 141 | Business Mathematics I | 3 |  |
|  |  | Humanities Elective ${ }^{1}$ | 3 |  |

SECOND YEAR FALL

| ACC | 115 | Applied Accounting | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| AST | 205 | Business Communications ${ }^{2}$ | 3 |  |
| AST | 243 | Office Administration I | 3 |  |
| BUS | 241 | Business Law I | 3 |  |
| PSY | 120 | Human Relations | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |

SECOND YEAR SPRING

| AST | 108 | Telephone Techniques | 1 |  |
| :--- | :--- | :--- | :--- | :--- |
| AST | 150 | Desktop Publishing | 1 |  |
| AST | 155 | Intro to Deskop Information <br> Management | 1 |  |
| AST | 160 | Learning the Internet for <br> Business | 1 |  |
| AST | 244 | Office Administration II | 3 |  |
| AST | 271 | Medical Office Procedures | 3 |  |
| AST | 290 | Internship in AST | 3 |  |
|  |  | Social Science or Humanities <br> Elective | 3 |  |
| Total Minimum Credits for Degree | 66 |  |  |  |

${ }^{1}$ Consult with advisor: ${ }^{2}$ BUS 236 may be substituted for AST 205.

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## Associate of Applied Science Degree Computer Networking Technology (732)

## Program Description

The Computer Networking Technology student will take coursework in network infrastructure and internet-working devices, network operating systems, and network management.

## Opportunities For Employment

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 administrators, network planners, and network managers.

## Program Requirements

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 advisor.

For Further Information Contact:
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276.523.2400 ext. 313

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ITN | 154 | Network Fundamentals, Router Basics, and Configuration (ICND1) - Cisco | 4 |  |
| ITN | 110 | Client Operating Systems | 3 |  |
| ITN | 107 | Personal Computer Hardware \& Troubleshooting | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MTH | 103 | Applied Technical Math | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ITN | 155 | Switching, Wireless, and WAN Technologies (ICND2) - Cisco | 4 |  |
| ITN | 111 | Server Administration | 3 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| ENG | $\begin{aligned} & \hline 111 \text { or } \\ & 115 \end{aligned}$ | College Composition I or Technical Witing | 3 |  |
|  |  | Humanities Elective | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| ITN | 156 | Applied Accounting | 4 |  |
| ITN | 113 | Active Directory | 3 |  |
| ITN | 211 | Windows 2000 Network Security Design (NSD) | 3 |  |
|  |  | Social Science Elective | 3 |  |
| ITN | 171 | Unix 1 | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ITN | 157 | WAN Technologies-Cisco | 4 |  |
| ITN | 112 | Network Infrastructure | 3 |  |
| ITN | 214 | Messaging Server Admin | 3 |  |
| ITE | 290 | Coord Intershhip in ITE ${ }^{1}$ | 3 |  |
|  |  | Social Science or Humanities Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

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## Associate of Applied Science Degree <br> Computer Software Specialist (222)

## Program Description

The Computer Software Specialist program is designed to prepare students to enter the workforce as computer professionals who can develop business-oriented software applications. 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 at an area business or a comprehensive computer project.

## Opportunities For Employment

Students completing this degree will be prepared to work in a variety of IT positions with internet service providers and either public or private organizations. Motivated software specialists can advance to positions such as software developers, database administrators, systems analysts, web programmers, and webmasters.

## Program Requirements

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 advisor.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ITE | 131 | Survey of Internet Services | 1 |  |
| ITD | 110 | Web Page Design 1 | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| ITN | 171 | Unix 1 | 3 |  |
| ITN | 101 | Intro to Network Concepts | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ENG | $\begin{aligned} & 111 \text { or } \\ & 115 \end{aligned}$ | College Composition I or Technical Writing | 3 |  |
|  |  | Social Science or Humanities Elective | 3 |  |
| ITP | 100 | Software Design | 3 |  |
| ITP | 120 | Java Programming I | 3 |  |
| ITP | 140 | Client Side Scripting | 3 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| ITE | 150 | Desktop Database Software | 3 |  |
| ITP | 132 | C++ Programming I | 3 |  |
| MTH | 103 | Applied Technical Math | 3 |  |
| ITP | 193 | Studies in PHP/MySQL | 3 |  |
| ITP | 220 | Java Programming II | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ITP | 232 | C++ Programming II | 3 |  |
| ITP | 214 | Windows Mobile Development | 3 |  |
| ITP | 251 | Systems Analysis \& Design | 3 |  |
| ITP | 298 | Capstone | 3 |  |
|  |  | Social Science Elective | 3 |  |
|  |  | Humanities Elective |  |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

For Further Information Contact:
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## Associate of Applied Science Degree <br> Computer-Aided Drafting and Design Technology (729)

## Program Description

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, Auto CADD, and 3D 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.

## Opportunities For Employment

Successful completion of the Associate of Applied Science degree in the ComputerAided 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

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
|  |  | Technical Elective | 3 |  |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| DRF | 200 | Survey of Computer- Aided Drafting (CAD) | 4 |  |
| MTH | 103 | Technical Mathematics I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| DRF | 233 | College Composition I or Technical Writing | 3 |  |
|  |  | Technical Elective | 3 |  |
| DRF | 201 | Computer- Aided Drating and Design I | 3 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
| MEC | 113 | Materials and Processes of Industry | 4 |  |
| SECOND YEAR FALL |  |  |  |  |
| CIV | 171 | Surveying | 3 |  |
| DRF | 231 | Computer-Aided Drafting \| | 3 |  |
| IND | 101 | Quality Assurance Technology | 3 |  |
| PHY | 131 | Applied Physics | 3 |  |
|  |  | Social Science Elective | 3 |  |
|  |  | Personal Development Elective | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| CIV | 172 | Surveying \|| | 3 |  |
| DRF | 232 | Computer- Aided Drating and Design II | 3 |  |
| DRF | $\begin{array}{\|l\|} 298 \text { or } \\ 290 \end{array}$ | Seminar and Project in Drafting or Coordinated Internship | 4 |  |
| MEC | 122 | Desktop Manufacturing Technology | 3 |  |
|  |  | Humanities Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

## Associate of Applied Science Degree <br> Computer-Aided Drafting and Design Technology - Mapping Specialization (729-01)

## Program Description

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, Auto CADD, and 3D 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.

## Opportunities For Employment

Successful completion of the Associate of Applied Science degree in the ComputerAided 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

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| GIS | 200 | Geolifo Systems \| | 4 |  |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| DRF | 200 | Survey of Computer- Aided Drafing | 4 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| DRF | 233 | Computer-Aided Design III | 3 |  |
| GIS | 201 | Geoo Ifo Systems II | 4 |  |
| DRF | 201 | Computer- Aided Drafting and Design I | 3 |  |
| MEC | 113 | Materials and Processes of Industry | 4 |  |
| MTH | 103 | Applied Technical Mathematics | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| CIV | 171 | Surveying 1 | 3 |  |
| DRF | 231 | Computer-Aided Drafting \| | 3 |  |
| PHY | 131 | Applied Physics | 3 |  |
|  |  | Social Science Elective | 3 |  |
|  |  | Personal Development Elective | 1 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| CIV | 172 | Surveying II | 3 |  |
| DRF | $\begin{aligned} & 298 \text { or } \\ & 290 \end{aligned}$ | Seminar and Project or Coordinated Internship | 4 |  |
| DRF | 232 | Computer Aided Drafting II | 3 |  |
|  |  | Humanities Elective | 3 |  |
| GIS | 233 | Understanding Geo Data | 4 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

For Further Information Contact:
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## Associate of Applied Science Degree Computerized Manufacturing Technology (726)

## Program Description

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.

## Opportunities For Employment

This major prepares graduates for employment in the automated industry with each graduate expected to receive multiple job offerings as a result of the growth in demand for these companies.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
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Jimmie Garland jgarland@mecc.edu
276.523.2400 ext. 265

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| SAF | 126 | Industrial Safety | 3 |  |
| MEC | 120 | Principles of Machine Technology | 3 |  |
| MTH | 103 | Applied Technical Mathematics $\mid$ | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 156 | Electrical Control Systems | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MEC | 113 | Materials and Processes of Industry \| | 4 |  |
| MEC | 266 | Fluid Mechanics | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| DRF | 200 | Survey of Computer-Aided Drafing | 4 |  |
| PHY | 131 | Applied Physics | 3 |  |
| HLT | 105 | CPR | 1 |  |
| IND | 101 | Quality Assurance Tech | 3 |  |
| IND | 160 | Introduction to Robotics | 3 |  |
| MEC | 118 | Automated Manufacturing Tech | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ELE | 239 | Programmable Controllers | 3 |  |
|  |  | Humanities Elective | 3 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
| IND | 295 | Computer Integrated Projects I | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

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# Associate of Applied Science Degree <br> Computerized Manufacturing Technology - Electromechanical Technology Specialization (726-01) 

## Program Description

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. There are two tracks: 1) 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 (three years total), or 2) Students may elect to forgo the internship at Eastman and complete the AAS at MECC (two years total). After completing the associate degree the student is eligible to begin the nationally recognized apprenticeship program at Eastman.

## Opportunities For Employment

Many companies need competent electromechanical technicians. The Electromechanical program was designed to meet this increasing need in this region. 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 OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course | Course Title | Credit | Progress |  |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| SAF | 126 | Industrial Safety | 3 |  |
| MEC | 120 | Principles of Machine <br> Technology | 3 |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| ENG | 111 | College Composition I | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| ELE | 156 | Electical Control Systems | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MEC | 113 | Materials and Processes of <br> Industry $~$ | 4 |  |
|  |  | Humanities Elective | 3 |  |

## SECOND YEAR FALL

| ETR | 218 | Ind. Electronics Circuits | 4 |  |
| :---: | :---: | :---: | :---: | :---: |
| HLT | 105 | CPR | 1 |  |
| PHY | 131 | Applied Physics | 3 |  |
| IND | 101 | Quality Assurance Tech | 3 |  |
| IND | 125 | Installation and Preventive Maintenance | 3 |  |
| MEC | 205 | Piping \& Auxiliary Systems | 3 |  |
| SECO | D YEA | PRING |  |  |
| ELE | 239 | Programmable Controilers | 3 |  |
| MEC | 266 | Fluid Mechanics | 3 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
|  |  | Welding Elective | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:

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## Associate of Applied Science Degree <br> Computerized Manufacturing Technology - Industrial Electronics Specialization (726-02)

## Program Description

The Industrial Electronics specialization of the Computerized Manufacturing Technology major is designed to prepare students for employment in a wide variety of settings. While the primary emphasis of the degree focuses on the industrial and manufacturing areas, many graduates find employment in the health and service sectors as electronic or computer technicians. Course work includes a strong emphasis in the computer technology field including how to interface, upgrade and repair computer related equipment and systems. .

## Opportunities For Employment

Job titles for graduates include names such as electronic technician, electronic equipment repairer, quality assurance technician, computer repair technician, process control technician, engineering technician and manufacturing technician.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| SAF | 126 | Industrial Safety | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| MTH | 103 | Applied Technical Mathematics 1 | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 156 | Electrical Control Systems | 3 |  |
| ETR | 143 | Devices \& Applications 1 | 3 |  |
| ETR | 168 | Digital Circuit Fundamentals | 3 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
|  |  | Humanities Elective | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| PHY | 131 | Applied Physics | 3 |  |
| ETR | 218 | Industrial Electronics Circuits | 4 |  |
| ETR | 273 | Computer Electronics I | 4 |  |
| IND | 160 | Introduction to Robotics | 3 |  |
|  |  | Technical Elective | 3 |  |
| HLT | 105 | CPR | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ELE | 239 | Programmable Controllers | 3 |  |
| MEC | 113 | Materials and Processes of Industry | 4 |  |
| IND | 295 | Computer Integrated Projects 1 | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

## Associate of Applied Science Degree Correctional Services (462)

## Program Description

At MECC you will find a fascinating and challenging Protective Services curriculum that includes a major in Police Science and Correctional Services. The program is structured to prepare individuals for careers in criminal justice, correctional services, and related occupations. .

## Opportunities For Employment

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

Entry into the program requires taking the English and mathematics placement tests. If deficiencies are found, you will be required to correct them by registering for developmental studies. 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.

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Cindy Ringley cringley@mecc.edu 276.523.2400 ext. 264

Tommy Clements, Dean tclements@mecc.edu 276.523.2400 ext. 431

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Course \# | Course Title | Credit | Progress |  |  |
| ADJ | 100 | Survey of Criminal Justice | 3 |  |  |
| ADJ | 140 | Introduction To Corrections | 3 |  |  |
| ADJ | 171 | Forensic Science lor Science <br> Elective | 4 |  |  |
| ENG | 111 | College Composition I | 3 |  |  |
|  |  | HLT, PED, ADJ 127, or <br> ADJ 138 | 1 |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |

FIRST YEAR SPRING

| ADJ | 146 | Adult Corrections Insitutions | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| ADJ | 172 | Forensic Science II or Science <br> Elective | 4 |  |
|  |  | Humanities Elective | 3 |  |
| ADJ | 245 or <br> 248 | Management of Correctional <br> Facilitites or Probation, Parole, <br> and Treatment | 3 |  |
| ADJ | 107 | Survey of Criminology | 3 |  |

SECOND YEAR FALL

| ADJ | 241 | Correctional Law | 3 |  |
| :---: | :---: | :---: | :---: | :---: |
| ADJ | 246 | Correctional Counseling | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MTH | $\begin{array}{\|l} \hline 151, \\ 157, \\ 163, \text { or } \\ 141 \\ \hline \end{array}$ | Math for Liberal Art I, Elementary Stats, Pre-Calculus I or Business Mathematics | 3 |  |
| $\begin{array}{\|l\|} \hline \text { SOC or } \\ \text { PSY } \end{array}$ | 200 | Principles of Sociology or Principles of Psychology | 3 |  |
|  |  | Elective | 3 |  |
| SECON | YEAR | PRING |  |  |
| ADJ | $\begin{aligned} & 296 \text { or } \\ & 198 \end{aligned}$ | On-Site Training in Criminal Justice or Seminar and Project | 3 |  |
| ADJ | 227 | Constitutional Law for Justice Personnel | 3 |  |
| ADJ | 105 | Juvenile Justice | 3 |  |
| $\begin{array}{\|l\|} \hline \text { SOC or } \\ \text { PSY } \\ \hline \end{array}$ | 200 | Principles of Sociology or Principles of Psychology | 3 |  |
| CST | $\begin{aligned} & 105 \text { or } \\ & 100 \end{aligned}$ | Oral Communication or Principles of Public Speaking | 3 |  |
|  |  | Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 67 |  |

## Associate of Applied Science Degree Emergency Medical Services Technology (146)

## Program Description

The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Paramedics 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.

All certification testing series must be completed within twelve (12) months from the date of the primary certification test attempt (e.g. first test date). Failure to complete this process within this twelve (12) month period will require the Candidate to repeat an entire initial basic training program or applicable bridge course before any additional testing may be attempted at this certification level.

## 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).

## Program Goals

After successfully completing the program, the graduate will be able to demonstrate:

1. The ability to comprehend, apply, and evaluate the clinical information relative to his/her role as an entry-level paramedic.
2. Technical proficiency in all skills necessary to fulfill the role of an entry-level paramedic.
3. Personal behaviors consistent with professional and employer expectations for the entry-level paramedic.

## Opportunities for Employment

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 OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Course \# |  |  |  |  |  |  | Course Title | Credit | Progress |
| EMS | 111 | EMT - Basic $^{1}$ | 7 |  |  |  |  |  |  |
| EMS | 120 | EMT - Basic Clinical $^{1}$ | 1 |  |  |  |  |  |  |
| BIO | 145 | Human Anatomy \& Physiology $^{2}$ | 4 |  |  |  |  |  |  |
| SDV | 100 | College Success Skills $^{3}$ | 1 |  |  |  |  |  |  |

## FIRST YEAR FALL

| EMS | 151 | Introduction to Advanced Life <br> Support | 4 |  |
| :--- | :--- | :--- | :--- | :--- |
| EMS | 152 | Advanced Medical Care | 2 |  |
| EMS | 153 | Basic ECG Recognition | 2 |  |
| EMS | 170 | ALS Internship I | 1 |  |
| ENG | 111 | College Composition | 3 |  |

FIRST YEAR SPRING

| EMS | 154 | ALS - Cardiac Care | 2 |  |
| :--- | :--- | :--- | :--- | :--- |
| EMS | 157 | ALS Trauma Care | 3 |  |
| EMS | 159 | ALS Special Populations | 3 |  |
| EMS | 172 | ALS Clinical Internship II | 1 |  |
| EMS | 173 | ALS Field Internship II | 1 |  |
| ITE |  | ITE Elective | 3 |  |
|  |  | General Education Elective ${ }^{5}$ | 3 |  |

SECOND YEAR FALL

| EMS | 201 | EMS Professional <br> Development | 3 |  |
| :--- | :--- | :--- | :---: | :--- |
| EMS | 205 | Advanced Pathophysiology | 4 |  |
| EMS | 207 | Adv. Patient Assessment | 3 |  |
| EMS | 242 | ALS Clinical Internship III | 1 |  |
| EMS | 243 | ALS Field Internship III | 1 |  |

SECOND YEAR SPRING

| EMS | 209 | Pharmacology | 4 |  |
| :--- | :--- | :--- | :---: | :--- |
| EMS | 211 | Operations | 2 |  |
| EMS | 244 | ALS Clinical Internship IV | 1 |  |
| EMS | 245 | ALS Field Internship IV $^{2}$ Social Science Elective ${ }^{6}$ | 1 |  |
|  |  | S $^{6}$ | 3 |  |
|  |  | Humanities Elective $^{7}$ | 3 |  |
| Total Minimum Credits for Degree |  |  |  |  |

${ }^{1}$ Core competencies for HLT 105, Cardiopulmonary Resuscitation, are covered within EMS 111. Students will receive a BLS for Healthcare Provider CPR certification card. ${ }^{2}$ BIO 141-142 are recommended if the student is planning to transfer to another medically related program
${ }^{3}$ SDV 100 or 109 is recommended
${ }^{4}$ TE 119 is recommended
${ }^{5}$ Elective from social science, humanities, sciences, or math (MTH 151 or higher) ${ }^{6}$ Social Science subject areas: PSY/PLS/ECO/HIS/SOC/GEO
${ }^{7}$ Humanities/fine art subject areas: MUS 121/ART/PHIIREL/HUM and some ENG

## Special Considerations

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 Emergency Medical Services. Individuals who have a felony conviction or do not pass the background checks and/or drug screenings will not be eligible to continue in the program.
Applicants must meet the following requirements:

- Be at least 18 years of age by the beginning of the program pursuant to Section 12VAC5-30270A.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 EMT, EMT-Advanced, or EMT-Intermediate 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. Additionally, a selection process is utilized to choose applicants for each year's program. 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).
- Have transcripts of previous college courses sent to MECC.
After May 15th the first round of students will be selected. Selection will be based on previous college coursework, and placement into ENF 3 or higher. Should openings still be available, persons who apply or meet requirements after May 15 , or score lower than the cut score on the reading exam will be considered.


## Program Requirements

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.

## 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 (EMS 213) 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 suitability 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.

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, drug and background screens, testing fees, certification courses and some medical equipment items.

Applicants accepted to the program are required to submit a health certificate signed by a licensed physician or RNP and should include documentation of measles, mumps, Rubella (MMR), DTP, and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant.

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## Associate of Applied Science Degree Energy Technology (820)

## Program Description

Graduates of the Energy Technology program are trained in the job skills necessary for employment as an entry level HVAC/ Electrical technician in both residential and commercial 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.

## Opportunities For Employment

Graduates can expect to find employment as entry level or apprentice electricians or HVAC Technicians in the residential and commercial construction industry, or as industrial maintenance technicians.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| AIR | 121 | Air Conditioning \& Refrigeration I | 4 |  |
| ITE | 119 | Information Literacy | 3 |  |
| ELE | 131 | National Electrical Code I | 3 |  |
| ELE | 140 | Basic Electrical Machinery | 4 |  |
| ENG | 111 | College Composition | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 132 | National Electrical Code II | 3 |  |
| ELE | 156 | Electrical Control Systems | 3 |  |
| ENE | 230 | Geothermal Applications ${ }^{1}$ | 4 |  |
| AIR | 281 | Energy Management I | 3 |  |
| HLT | 105 | CPR | 1 |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| AIR | 205 | Hydronics and Zoning | 4 |  |
| ENE | 110 | Solar Power Installations ${ }^{1}$ | 4 |  |
| AIR | 282 | Energy Management II | 2 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| ENE | 105 | Solar Thermal Active and Passive Technology | 4 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ELE | 239 | Programmable Controllers | 3 |  |
| ELE | $\begin{aligned} & 298 \text { or } \\ & 290 \end{aligned}$ | Seminar \& Project or Coordinated Internship | 3 |  |
| PHY | 131 | Applied Physics | 3 |  |
|  |  | Humanities Elective | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 67 |  |

[^1]
## Associate of Applied Science Degree Energy Technology Electrical Specialization (820-01)

## Program Description

Graduates of the Energy Technology Electrical Specialization program are trained in the job skills necessary for employment as a beginning electrician in both residential and commercial fields. Course work includes a strong emphasis in electrical technology with related courses in computer applications, quality control, teamwork, and communication.

## Opportunities For Employment

Graduates can expect to find employment as entry level or apprentice electricians in various industries and service sectors.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| BLD | 110 | Introduction to Construction | 3 |  |
| AIR | 111 | Air Conditioning \& Refrigeration I | 3 |  |
| AIR | 281 | Energy Management I | 3 |  |
| ELE | 131 | National Electrical Code I | 3 |  |
| ELE | 140 | Basic Electricity and Machinery | 4 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| ELE | 132 | National Electrical Code II | 3 |  |
| ELE | 156 | Electrical Control Systems ${ }^{1}$ | 3 |  |
| AIR | 112 | Air Conditioning \& Refrigeration II | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| HLT | 105 | CPR | 1 |  |
| SECOND YEAR FALL |  |  |  |  |
| ETR | 218 | Industrial Electronics Circuits | 3 |  |
| ELE | 110 | Home Electric Power | 3 |  |
| ENE | 110 | Solar Power Installations ${ }^{1}$ | 4 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| PHY | 131 | Applied Physics | 3 |  |
| ELE | 239 | Programmable Controllers ${ }^{1}$ | 3 |  |
| ELE | $\begin{array}{\|l\|} \hline 298 \text { or } \\ 290 \\ \hline \end{array}$ | Seminar \& Project or Coordinated Internship | 3 |  |
|  |  | Technical Elective | 3 |  |
|  |  | Humanities Elective | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 67 |  |

[^2]
## Associate of Applied Science Degree <br> Environmental Science (828)

## Program Description

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.

## Opportunities For Employment

The Associate of Applied Science degree program in Environmental Science is designed to prepare students for employment as an Environmental Technician.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
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Tommy Clements, Dean tclements@mecc.edu 276.523.2400 ext. 431

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| ENV | 220 | Environmental Problems | 3 |  |
| FOR | 100 | Introduction to Forestry | 3 |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| SCT | 111 | Intro to Environmental \& Science Technology I | 4 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| GIS | 200 | Geographical Info Systems | 4 |  |
|  |  | Humanities Elective | 3 |  |
| HRT | 137 | Environmental Factors in Plant Growth | 3 |  |
| NAS | 106 | Conservation of Natural <br> Resources | 3 |  |
| SCT | 112 | Introduction to Environmental \& Science Technology \|| | 4 |  |
| SECOND YEAR FALL |  |  |  |  |
| AGR | 205 | Soil Fertility \& Management | 3 |  |
| ENV | 227 | Environmental Law | 3 |  |
| $\begin{aligned} & \text { ENV or } \\ & \text { GIS } \end{aligned}$ | $\begin{aligned} & 230 \text { or } \\ & 230 \end{aligned}$ | GIS: Apps in Environmental Science or Apps in Environmental Science | 3 |  |
| ENV | 235 | Soil Conservation \& Spoils Mgmt. | 3 |  |
| $\begin{array}{\|l\|} \hline \text { HLT\| } \\ \text { PED } \end{array}$ |  | Health/Physical Education | 1 |  |
|  |  | Technical Elective | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| AGR | 208 | Insect Control | 3 |  |
| CIV | 246 | Water Resource Tech | 3 |  |
| ENV | 290 | Coordinated Internship in Environmental Science | 4 |  |
| ENV | 211 | Sanitary Biology \& Chemistry | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

[^3]
## Associate of Applied Science Degree <br> Environmental Science Water/Wastewater Specialization (828-02)

## Program Description

The Environmental Science 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.

## Distance Education Option

The entire Water/Wastewater Program can be completed through distance education courses. All technical courses are available at www.mecc.edu. All support courses are available through either video or web-based instruction.

## Opportunities For Employment

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

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

## 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:

## Associate of Applied Science Degree Forest Science (839)

## Program Description

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.

## Opportunities For Employment

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

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
Dr. Chuks Ogbonnaya
cogbonnaya@mecc.edu
276.523.2400 ext. 276

Tommy Clements, Dean
tclements@mecc.edu
276.523.2400 ext. 431

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition | 3 |  |
| FOR | 100 | Introduction to Forestry | 3 |  |
| FOR | 115 | Dendrology | 4 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| GIS | 200 | Geographical Info Systems | 4 |  |
|  |  | Humanities Elective | 3 |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| NAS | 106 | Conservation of Natural Resources | 3 |  |
|  |  | Technical Elective ${ }^{1}$ | 3 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| OR | 215 | Applied Silviculture | 4 |  |
| FOR | 237 | Wildlife Ecology | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| AGR | 205 | Soil Ferrility \& Management | 3 |  |
| $\begin{aligned} & \hline \text { ENV } \\ & \text { or BUS } \end{aligned}$ | $\begin{aligned} & 227 \text { or } \\ & 241 \\ & \hline \end{aligned}$ | Environmental Law Business Law I | 3 |  |
| CIV | 171 | Surveying I | 3 |  |
| $\begin{aligned} & \hline \text { GIS } \\ & \text { or ENV } \end{aligned}$ | $\begin{aligned} & 230 \text { or } \\ & 230 \end{aligned}$ | Apps in Environmental Science or GIS: Apps in Environmental Science | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| AGR | 208 | Insect Control | 3 |  |
| CIV | 172 | Surveying \|12 | 3 |  |
| FOR | 245 | Forest Products I | 2 |  |
| FOR | 290 | Coordinated Internship in Forestry | 4 |  |
|  |  | HLT or PED | 1 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 65 |  |

${ }^{1}$ Students may select two of the following classes as electives: ENV 235 Soil Conservation and Spoil Management, HRT 137 Environmental Factors in Plant Growth or ENV 298 Seminars and Projects in Environmental Science. ${ }^{2}$ FOR 201 Forest Mensuration may be substituted for CIV 172 Surveying II

# Associate of Applied Science Degree <br> Health Information Management (152) 

## Program Description

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

## Opportunities For Employment

HIM graduates will be able to work at acute care hospitals, clinics, behavioral healthcare facilities, hospice, home care, health care government agencies, EHR vendors, insurance companies, and Managed Care Organizations. Opportunities for certification include Certified Professional Coder (CPC), Certified Professional Coder - Hospital Outpatient (CPC-H), Certified Electronic Health Records Specialist (CEHRS), and others.

## Program Requirements

Students entering the HIM 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 Information Management Application for Admission packet, including 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 advisor.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course | Course Title | Credit | Progress |  |
| NAS | 171 | Human Anatomy \& Physiology I | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| HIM | 130 | Healthcare Information <br> Systems | 3 |  |
| HIM | 113 | Medical Terminology and <br> Disease Processes I | 3 |  |
| HIM | 260 | Pharmacology for HIM | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| HIM | 114 | Med Term \& Disease <br> Processes II | 3 |  |
| :--- | :--- | :--- | :---: | :---: |
|  |  | Guided Genera Education <br> Elective | 3 |  |
| HIM | 150 | Health Records Management | 3 |  |
| HIM | 230 | Info Systems \& Tech in <br> Healthcare | 3 |  |
| HIM | 253 | Health Records Coding | 4 |  |
| SDV | 106 | Preparation for Employment | 1 |  |
| HLT | 105 | CPR | 1 |  |

SECOND YEAR FALL

| HIM | 149 | Intro to Medical Practice <br> Management | 2 |  |
| :--- | :--- | :--- | :---: | :---: |
| HIM | 151 | Reimbursement Issues in <br> Medical Practice Management | 2 |  |
| HIM | 249 | Supervision \& Management <br> Pracices for HIM | 3 |  |
| HIM | 254 |  <br> Reimbursements | 4 |  |
| HIM | 251 | Clinical Practice I | 3 |  |
|  |  | Humanities Elective 1 | 3 |  |

SECOND YEAR SPRING

| HIM | 220 | Health Statistics | 2 |  |
| :--- | :--- | :--- | :--- | :--- |
| HIM | 226 | Legal Aspects of Health <br> Record Documents | 2 |  |
| HIM | 229 | Performance Improvement in <br> Healhcare | 2 |  |
| HIM | 233 | Electronic Health Records <br> Management | 3 |  |
| HIM | 252 | Clinical Practice II | 3 |  |
| HIM | 280 | HIM Capstone | 1 |  |
|  |  | Social Science Elective ${ }^{1}$ | 3 |  |
| Total Minimum Credits for Degree | 65 |  |  |  |

[^4]
## Clinical Affiliation Agreement for HIM Internship

The Health Information Management Program has clinical affiliation agreements with clinical agencies for student safety.

If students cannot comply with these contractual requirements, they will not be able to participate in clinical experience 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 requires that all students have documentation of ability to perform the physical demands required in direct patient care activities.
- Immunizations must be current. A flu vaccine may be required.
- Student release clinical agencies, its agents, and employees from any liability for any injury or death to him/herself or damage to his/her property arising out of agreement or 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:
Fran Doyle, Assistant Dean
fdoyle@mecc.edu
276.523.2400 ext. 313

Nora Blankenbecler, Program Director
nblankenbecler@mecc.edu
276.523.2400 ext. 241

## Associate of Applied Science Degree Management (212)

## Program Description

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.

## Opportunities For Employment

The Management major is designed for students who seek employment in business or who wish to operate their own business upon completion of the College program. Salaries of managers vary depending on the level of responsibility, length of service, and type and size of firm.

## Program Requirements

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 advisor.

For Further Information Contact:
Fran Doyle, Assistant Dean
fdoyle@mecc.edu
276.523.2400 ext. 313

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ACC | 115 | Applied Accounting | 3 |  |
| BUS | 200 | Principles of Management | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MKT | 170 | Customer Service | 1 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ACC | 215 | Computerized Accounting | 3 |  |
| BUS | 202 | Applied Management Principles | 3 |  |
| ECO | 120 | Survey of Economics | 3 |  |
| ITE | 140 | Spreadsheet Software | 3 |  |
| PSY | 120 | Human Relations | 3 |  |
| MTH | 141 | Business Mathematics $1{ }^{1}$ | 3 |  |

## SECOND YEAR FALL

| BUS | 205 | Human Resource <br> Management | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| BUS | 241 | Business Law I | 3 |  |
| ITE | 150 | Desktop Database Software | 3 |  |
| MKT | 100 | Principles of Marketing | 3 |  |
| MKT <br> or <br> ACC | 284 <br> or 134 | Social Media Marketing or <br> Small Business Taxes | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |

SECOND YEAR SPRING

| BUS | 111 | Principles of Supervision | 3 |  |
| :--- | :--- | :--- | :--- | :--- |
| BUS | 165 | Small Business Management | 3 |  |
| BUS | 242 | Business Law II | 3 |  |
| BUS | 236 | Communication in <br> Management | 3 |  |
| BUS <br> or <br> ACC | 85 <br> or 290 | Current Issues in Management <br> or Internship in Accounting | 3 |  |
|  |  | Humanities Elective | 3 |  |
| Total Minimum Credits for Degree | 66 |  |  |  |

[^5]
## Associate of Applied Science Degree <br> Nursing Track 1: Two-Year Plan (156)

## Program Description

The Virginia Tricollege Nursing Program (VATNP) is a three college consortium serving Mountain Empire Community College, Southwest Virginia Community College, and Virginia Highlands Community College. The two year Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the health team, rendering direct patient care as beginning practitioners of nursing in a variety of health service facilities. Upon successful completion of the curriculum, students will be eligible to take the National Council Licensure Examination leading to licensure as a registered nurse (RN). The VATNP offers an opportunity for recent high school graduates and other eligible adults to complete the nursing degree program after two years of full-time attendance (2 summer sessions and 4 semesters). This is a rigorous and academically challenging program.

Admission to the Virginia Appalachian Tricollege Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which 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:

Graduation from high school or satisfactory completion of the G.E.D.

The completion of one unit each of general biology (with laboratory) and chemistry with no grade below a "C" prior to application deadline (deficiencies can be made up through developmental studies or college courses).

Completion of Virginia Placement Tests (VPT) within 2 years prior to application with demonstrated proficiency in MTE 1-4, or SAT math score of 520/ACT math score of 22 , or completion of college-level math

## PROGRAM OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| SDV | 100 | College Success Skills | 1 |  |
| MTH | 126 | Math for Allied Health | 2 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| FIRST YEAR FALL |  |  |  |  |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| NUR | 105 | Nursing Skills | 2 |  |
| NUR | 108 | Nursing Principles \& Concepts I | 5 |  |
| NUR | 136 | Principles of Pharmacology 1 | 1 |  |
| NUR | 226 | Health Assessment | 2 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy \& Physiology II | 4 |  |
| ENG | 112 | College Composition II | 3 |  |
| NUR | 109 | Nursing Principles \& Concepts II | 5 |  |
| NUR | 114 | Geriatric Nursing | 3 |  |
| NUR | 137 | Principles of Pharmacology II | 1 |  |
| SECOND YEAR FALL |  |  |  |  |
|  |  | Humanities Elective ${ }^{1}$ | 3 |  |
| NUR | 201 | Psychiatric Nursing | 3 |  |
| NUR | 205 | Intro to Second Level Nursing | 5 |  |
| NUR | 236 | Principles of Pharmacology III | 1 |  |
| PSY | 231 | Life Span Human Development I | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| NUR | 208 | Acute Medical-Surgical Nursing | 6 |  |
| NUR | 237 | Principles of Pharmacology IV | 1 |  |
| NUR | 245 | Maternal/Newborn Nursing | 3 |  |
| NUR | 254 | Dimensions of Professional Nursing | 2 |  |
| PSY | 232 | Life Span Human Development II | 3 |  |
| Total Minimum Credits for Degree |  |  | 69 |  |

${ }^{1}$ Humanities electives include: ART 101,102; CST 130,151,152; ENG 241, 242, 243, 244, 251, 252; HUM 100, 201, 202; MUS 121, 122; PHI 101, 220, 225, 226, 227; REL 200, 210, 231, 232.
class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to application deadline.

A 2.5 grade point average (GPA) for high school courses** or a 2.5 curricular GPA for college coursework.

College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.

Completion of Health Science Program Application for each academic year interested in being considered for the nursing program.
Satisfactory performance (national percentile score of 45 or higher) on a nursing preadmission test.
** If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (nondevelopmental courses), the 2.5 high school GPA requirement will be waived.

Nursing program application packets will be accepted in the Admissions office between September 1, 2016 and February 1, 2017. Packets must include high school transcript or GED test scores (if applicable). Currently licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2014 must provide documentation of the equivalent of 1 year ( 2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions office will suspend processing applications if all transcripts are not attached. Once a packet is submitted, additional documentation will not be accepted. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the college application and the Health Science Program application.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and all documents submitted by the February 1 deadline. Further details of the application process can be found at www.mecc.edu/forms (Health Science Admission Forms).

Out-of-region applicants will only be considered for openings in the nursing program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

## Opportunities for Employment

Employment opportunities for the Registered Nurse include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician's offices, clinics, home health agencies, day care centers, public schools, and civil service.

## State Approval and Accreditation

The program is approved by the Virginia Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-975-5000, fax 404-975-5020, website: www.acenursing.org).

## LPN to RN Transition

Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer LPN to RN bridge program providing they have completed all the general education courses required as outlined in the Nursing Track 3: LPN-RN Bridge curriculum or Track 4: PartTime Evening Weekend LPN-RN Bridge curriculum. Applicants must have graduated from an LPN program after May 15, 2014 OR must provide documentation of the equivalent of 1 year ( 2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

## 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 college and the VATNP. The student may be asked to provide course
descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director 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. 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. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

## Program Requirements

Prior to enrollment in any NUR course, the student must provide the following documentation. (For more information see the VATNP website at www.vhcc.edu/vatnp):

- Required Student Forms
- Annual Student Statement of Health form
- Student Information, Physical and Immunization forms. The VATNP physical examination form must be completed by a medical practitioner, MD, PA or CNP.
- Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B
- Current testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest X-ray must be provided
- Documentation of ability to perform physical demands required in direct patient care activities.
- Purchase a background check, drug screen, and Medical Document Package from Certified Background
- Clearance of criminal background check and drug testing
- Proof of CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" completed during the summer (May 16-August 16) prior to admission to NUR courses and maintained throughout the program
The cost of these requirements is the responsibility of the student.


## Special Notes

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 BARRIER CRIMES, Code of Virginia 63.2-1726 at http:// hope-tfc.org/FP/Barrier\ Crimes.pdf). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.

Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and are usually available in fall semester.

## Physical Demands

Program activities include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 51-74 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

## Course Requirements

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.

Most previous general education college credits will be accepted regardless of completion date; however, anatomy and physiology and the computer technology requirements will not be accepted if completed more than ten (10) years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program. Students must complete all courses listed in the first year
of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the Dean of the program.

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 nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

## Program Progression

Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition during the NUR 105 or NUR 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify 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.

Any student who earns a final grade lower than a " $C$ " in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence.

A student must obtain permission from the Dean of VATNP 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.


## Reapplication/Readmission Process

Students who are not successful in the first semester nursing course (NUR 108 or 115) must reapply to the nursing program. A new nursing program application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR 105, 109, 114, 136, 137, 201, 205, 208, 226, 236, 237,245 or 254 ) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment.

Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or student will have to repeat all nursing courses. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional 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.

A student who has 2 academic failures or withdrawals in separate semesters will be ineligible for reenrollment in the program. Such a student may not be readmitted if the cumulative grade point average is less than 2.0 , including all courses attempted other than nursing.

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 program dean and the vice president of instruction and student services.

## Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires: uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and Medical Document Package, and CPR certification.

Students are also responsible for transportation to and from the college and health agencies used for clinical experience.

## Clinical Contracts

The VATNP has contracts with clinical agencies for both student and patient safety. 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. 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.
Student releases clinical agencies, its agents and employees from any liability for any injury or death to him/herself or damage to his/her property arising out of agreement or 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.
Proper uniform must be worn when participating in clinical activities.

For Further Information Contact:
Dr. Kathy Mitchell, Dean
Mandy Robbins
kmitchell@vhcc.edu
arobbins@mecc.edu
276.523.2400 ext. 425
276.739.2440

Deborah Wright
Deborah Clarkston
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dcluesman@mecc.edu
276.523.2400 ext. 300

## Associate of Applied Science Degree <br> Nursing Track 2: Part-Time Evening \& Weekend (156)

## Program Description

The Virginia Appalachian Tricollege Nursing Program (VATNP) is a three college consortium serving Mountain Empire Community College, Southwest Virginia Community College, and Virginia Highlands Community College. The VATNP part-time evening weekend program 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 the previously described program of study. Classes will be provided in a combination of evening, weekend, and distance learning. The program is designed at a slower pace to be completed in 4 years. General education courses listed in Year 1 must be completed before the student can begin Year 2.

## Admission Requirements

Admissions requirements for the part-time evening/weekend nursing program are the same as the regular program with the following exception: Students must complete 20 credits of support (general education) courses: BIO 141, BIO 142, ENG 111, ENG 112, MTH 126, ITE 119, and SDV 100. Additional required general education courses can be completed after acceptance to the program.

## Opportunities for Employment

Employment opportunities for the Registered Nurse include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician's offices, clinics, home health agencies, day care centers, public schools, and civil service.

## State Approval and Accreditation

The program is approved by the Virginia Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-9755000, fax 404-975-5020, website: www. acenursing.org).

## PROGRAM OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| SDV | 100 | College Success Skills | 1 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| FIRST YEAR FALL |  |  |  |  |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| ENG | 112 | College Composition II | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy \& Physiology \|| | 4 |  |
| MTH | 126 | Math for Allied Health | 2 |  |

## SECOND YEAR SUMMER

| NUR | 136 | Principles of Pharmacology I | 1 |  |
| :--- | :--- | :--- | :--- | :--- |
| PSY | 231 | Life Span Human <br> Development I | 3 |  |

## SECOND YEAR FALL

| NUR | 105 | Nursing Skills | 2 |  |
| :--- | :--- | :--- | :--- | :--- |
| NUR | 108 |  <br> Concepts I | 5 |  |

SECOND YEAR SPRING

| NUR | 109 |  <br> Concepts II | 5 |  |
| :--- | :--- | :--- | :--- | :--- |
| NUR | 137 | Principles of Pharmacology II | 1 |  |
| NUR | 226 | Health Assessment | 2 |  |
| THIRD YEAR SUMMER |  |  |  |  | | PSY | 232 | Life Span Human <br> Development II | 3 |
| :--- | :--- | :--- | :--- |

THIRD YEAR FALL

| NUR | 205 | Intro to Second Level Nursing I | 5 |  |
| :--- | :--- | :--- | :--- | :--- |
| NUR | 236 | Principles of Pharmacology III | 1 |  |
| THIRD YEAR SPRING |  |  |  |  |
| NUR | 114 | Geriatric Nursing | 3 |  |
| NUR | 201 | Psychiatric Nursing | 3 |  |

## FOURTH YEAR SUMMER

|  | Humanities Elective 1 |  |  | 3 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| FOURTH YEAR FALL |  |  |  |  |
| NUR | 245 | Maternal/Newborn Nursing | 3 |  |
| NUR | 254 | Dimensions of Professional <br> Nursing | 2 |  |
| FOURTH YEAR SPRING |  |  |  |  |
| NUR | 208 | Acute Medical-Surgical Nursing | 6 |  |
| NUR | 237 | Principles of Pharmacology IV | 1 |  |
| Total Minimum Credits for Degree | 69 |  |  |  |

[^6]
## Admission Requirements

Admission to the Virginia Appalachian Tricollege Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which 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:

1. Graduation from high school or satisfactory completion of the G.E.D.
2. The completion of one unit each of general biology (with laboratory) and chemistry with no grade below a "C" prior to application deadline (deficiencies can be made up through developmental studies or college courses).
3. Completion of Virginia Placement Tests (VPT) within 2 years prior to application with demonstrated proficiency in MTE $1-4$, or SAT math score of $520 /$ ACT math score of 22, or completion of college-level math class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to application deadline.
4. A 2.5 grade point average (GPA) for high school courses** or a 2.5 curricular GPA for college coursework.
5. College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
6. Completion of Health Science Program Application for each academic year interested in being considered for the nursing program.
7. Satisfactory performance (national percentile score of 45 or higher) on a nursing preadmission test.
** If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (non-developmental courses), the 2.5 high school GPA requirement will be waived.

Nursing program application packets will be accepted in the Admissions office between September 1, 2016 and February 1, 2017. Packets must include high school transcript or GED test scores (if applicable). Currently
licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2014 must provide documentation of the equivalent of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions office will suspend processing applications if all transcripts are not attached. Once a packet is submitted, additional documentation will not be accepted. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the college application and the Health Science Program application.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and all documents submitted by the February 1 deadline. Further details of the application process can be found at www.mecc.edu (click Programs and Degrees, Associate of Applied Science, Nursing, and Health Science Program Admission).

Out-of-region applicants will only be considered for openings in the nursing program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

## LPN to RN Transition

Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer LPN to RN bridge program providing they have completed all the general education courses required as outlined in the Nursing Track 3: LPN-RN Bridge curriculum or Track 4: PartTime Evening Weekend LPN-RN Bridge curriculum. Applicants must have graduated from an LPN program after May 15, 2014 OR must provide documentation of the equivalent of 1 year ( 2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

## Transfer of Nursing Credit

Students seeking to transfer credit from nurs-
ing programs at other institutions will be considered on an individual basis. Students must meet the admission requirements identified by the college and the VATNP. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director 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. 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. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

## Program Requirements

Prior to enrollment in any NUR course, the student must provide the following documentation. (For more information see the VATNP website at www.vhcc.edu/vatnp):

- Required Student Forms
- Annual Student Statement of Health form
- Student Information, Physical and Immunization forms. The VATNP physical examination form must be completed by a medical practitioner, MD, PA or CNP.
o Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B
o Current testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest Xray must be provided
o Documentation of ability to perform physical demands required in direct patient care activities.
- Purchase a background check, drug screen, and Medical Document Package from Certified Background
- Clearance of criminal background check and drug testing
- Proof of CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" completed during the summer (May 16-August 16)
prior to admission to NUR courses and maintained throughout the program

The cost of these requirements is the responsibility of the student.

## Special Notes

- The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.13007 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 BARRIER CRIMES, Code of Virginia 63.2-1726 at http://hope-tfc.org/FP/Barrier\ Crimes. pdf). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.
- Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and are usually available in fall semester.


## Physical Demands

Program activities include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 5174 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

## Course Requirements

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.

Most previous general education college credits will be accepted regardless of completion date; however, anatomy and physiology and the computer technology requirements will not be accepted if completed more than
ten (10) years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program. Students must complete all courses listed in the first year of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the Dean of the program.

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 nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

## Program Progression

Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition during the NUR 105 or NUR 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify 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.

Any student who earns a final grade lower than a " $C$ " in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence. A student must obtain permission from the Dean of VATNP 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.


## Reapplication/Readmission Request

Students who are not successful in the first semester nursing course (NUR 108 or 115) must reapply to the nursing program. A new nursing program application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR $105,109,136,137,114,201,205,208,226$, $236,237,245$ or 254 ) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or student will have to repeat all nursing courses. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional 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.
A student who has 2 academic failures or withdrawals in separate semesters will be ineligible for reenrollment in the program. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than nursing.

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 program dean and the vice president of academic and student services.

## Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires: uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and Medical Document Package, and CPR certification.

Students are also responsible for transportation to and from the college and health agencies used for clinical experience.

## Clinical Contacts

The VATNP has contracts with clinical agencies for both student and patient safety. 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. 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.
Student releases clinical agencies, its agents and employees from any liability for any injury or death to him/herself or damage to his/her property arising out of agreement or 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.

Proper uniform must be worn when participating in clinical activities.
For Further Information Contact:

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## Associate of Applied Science Degree Nursing Track 3: LPN to RN Bridge (156)

## Program Description

The Virginia Appalachian Tricollege Nursing Program (VATNP) is a three college consortium serving Mountain Empire Community College, Southwest Virginia Community College, and Virginia Highlands Community College. The two year Associate of Applied Science degree curriculum in Nursing is designed to prepare selected students to qualify as contributing members of the health team, rendering direct patient care as beginning practitioners of nursing in a variety of health service facilities. Upon successful completion of the curriculum, students will be eligible to take the National Council Licensure Examination leading to licensure as a registered nurse (RN).

Students who are LPNs are required to complete at least 17 hours of the general education courses before beginning the LPN to RN nursing classes. 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. Some LPNs may opt for the part-time evening weekend program which requires 2 years of nursing classes after completion of general education requirements. The Virginia Appalachian Tricollege Nursing Program's LPN to RN Bridge Program is designed to grant advanced placement to LPNs who have been admitted to the Virginia Appalachian Tricollege Nursing Program (VATNP) Associate Degree program and meet prerequisite requirements.

If there is sufficient enrollment in the VATNP, students who meet the eligibility requirements for the advanced placement will take "Bridge Courses" in the summer term and then be eligible to take the sophomore level courses and graduate within one (1) academic year with an AAS Degree in Nursing.

This program is designed to recognize the common abilities of nurses and to bridge

## PROGRAM OF STUDY

| PRE-CLINICALSTUDIES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| B10 | 142 | Human Anatomy \& Physiology II | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| MTH | 126 | Math for Allied Health | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SUMMER |  |  |  |  |
| NUR | $115^{*}$ | LPN Transition | 6 |  |
| NUR | 136 | Principles of Pharmacology I | 1 |  |
| NUR | 137 | Principles of Pharmacology II | 1 |  |
| NUR | 226 | Health Assessment | 2 |  |
| FIRST YEAR FALL |  |  |  |  |
| ENG | 112 | College Composition II | 3 |  |
| NUR | 201 | Psychiatric Nursing | 3 |  |
| NUR | 205 | Intro to Second Level Nursing | 5 |  |
| NUR | 236 | Principles of Pharmacology III | 1 |  |
| PSY | 231 | Life Span Human Development I | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| NUR | 208 | Acute Medical-Surgical Nursing | 6 |  |
| NUR | 237 | Principles of Pharmacology IV | 1 |  |
| NUR | 245 | Maternal/Newborn Nursing | 3 |  |
| NUR | 254 | Dimensions of Professional Nursing | 2 |  |
| HUM |  | Humanities Elective ${ }^{1}$ | 3 |  |
| PSY | 232 | Life Span Human Development II | 3 |  |
| Total Minimum Credits for Degree |  |  | 60 |  |

*Upon completion of NUR 115, credit will be awarded for NUR $105,108,109$ and 114 ( 15 credits). These credits will appear on the student's official transcript.
${ }^{1}$ Humanities electives include: ART 101, 102; CST 130, 151, 152; ENG 241, 242, 243, 244, 251, 252; HUM 100, 201, 202; MUS 121, 122; PHI 101, 220, 225, 226, 227; REL 200, 210, 231, 232.
the difference between LPN and RN knowledge base and to allow these students to finish the AAS program within a two and one-half semester period.

## Admission Requirements for LPN to RN Program

Admission requirements for the LPN to RN nursing program are the same as the regular program with the following exceptions:

- Current LPN license.
- Applicants must have graduated from an LPN program after May 15, 2014 OR must provide documentation of the equivalent of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.
- Be an accepted student in the regular VATNP program.
- Completion of 17 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142, ENG 111, ITE 119, MTH 126 SDV 100. Additional required general education courses can be completed after acceptance to the program.


## State Approval and Accreditation

The program is approved by the Virginia Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-975-5000, fax 404-975-5020, website: www.acenursing. org).

## Program Admission Requirements

Admission to the Virginia Appalachian Tricollege Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which 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:

Graduation from high school or satisfactory completion of the G.E.D.

The completion of one unit each of general biology (with laboratory) and chemistry with no grade below a "C" prior to applica-
tion deadline (deficiencies can be made up through developmental studies or college courses).

Completion of Virginia Placement Tests (VPT) within 2 years prior to application with demonstrated proficiency in MTE 1-4, or SAT math score of $520 /$ ACT math score of 22, or completion of college-level math class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to application deadline.

A 2.5 grade point average (GPA) for high school courses** or a 2.5 curricular GPA for college coursework.
College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0 .
Completion of Health Science Program Application for each academic year interested in being considered for the nursing program.

Satisfactory performance (national percentile score of 45 or higher) on a nursing preadmission test.
** If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (non-developmental courses), the 2.5 high school GPA requirement will be waived.

Nursing program application packets will be accepted in the Admissions office between September 1, 2016 and February 1, 2017. Packets must include high school transcript or GED test scores (if applicable). Currently licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2014 must provide documentation of the equivalent of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions office will suspend processing applications if all transcripts are not at-
tached. Once a packet is submitted, additional documentation will not be accepted. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the college application and the Health Science Program application.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and all documents submitted by the February 1 deadline. Further details of the application process can be found at www.mecc.edu (click Programs and Degrees, Associate of Applied Science, Nursing, and Health Science Program Admission).

Out-of-region applicants will only be considered for openings in the nursing program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

## LPN to RN Transition

Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer LPN to RN bridge program providing they have completed all the general education courses required as outlined in the Nursing Track 3: LPN-RN Bridge curriculum or Track 4: PartTime Evening Weekend LPN-RN Bridge curriculum. Applicants must have graduated from an LPN program after May 15, 2014 OR must provide documentation of the equivalent of 1 year ( 2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

## 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 college and the VATNP. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director 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. 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. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

## Program Requirements

Prior to enrollment in any NUR course, the student must provide the following documentation. (For more information see the VATNP website at www.vhcc.edu/vatnp):

- Required Student Forms
- Annual Student Statement of Health form
- Student Information, Physical and Immunization forms. The VATNP physical examination form must be completed by a medical practitioner, MD, PA or CNP.
o Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B
o Current testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest X-ray must be provided
o Documentation of ability to perform physical demands required in direct patient care activities.
- Purchase a background check, drug screen, and Medical Document Package from Certified Background
- Clearance of criminal background check and drug testing
- Proof of CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" completed during the summer (May 16-August 16) prior to admission to NUR courses and maintained throughout the program
The cost of these requirements is the responsibility of the student.


## Special Notes:

- The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.13007 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 BARRIER CRIMES, Code of Virginia 63.2-1726 at http://hope-tfc.org/FP/Barrier\ Crimes. pdf ). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.
- Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and are usually available in fall semester.


## Physical Demands

Program activities include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 5174 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

## Course Requirements

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.
Most previous general education college credits will be accepted regardless of completion date; however, anatomy and physiology and the computer technology requirements will not be accepted if completed more than ten (10) years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program. Students must complete all courses listed in the first year of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the Dean of the program.
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 nursing program
faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

## Program Progression

Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition during the NUR 105 or NUR 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify 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. Any student who earns a final grade lower than a " $C$ " in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence. A student must obtain permission from the Dean of VATNP 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.


## Reapplication/Readmission Requirements

Students who are not successful in the first semester nursing course (NUR 108 or 115) must reapply to the nursing program. A new nursing program application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR $105,109,136,137,114,201,205,208,226$, $236,237,245$ or 254 ) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or student will have to repeat all nursing courses. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional 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.

A student who has 2 academic failures or withdrawals in separate semesters will be ineligible for reenrollment in the program. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than nursing.

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 program dean and the vice president of academic and student services.

## Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires: uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and Medical Document Package, and CPR certification.

Students are also responsible for transportation to and from the college and health agencies used for clinical experience.

## Clinical Contracts

The VATNP has contracts with clinical agencies for both student and patient safety. 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. 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.
Student releases clinical agencies, its agents and employees from any liability for any injury or death to him/herself or damage to his/ her property arising out of agreement or 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.
Proper uniform must be worn when participating in clinical activities.

For Further Information Contact:

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## Associate of Applied Science Degree Nursing Track 4: Part-Time Evening \& Weekend LPN to RN Bridge (156)

## Program Description

The Virginia Appalachian Tricollege Nursing Program (VATNP) is a three college consortium serving Mountain Empire Community College, Southwest Virginia Community College, and Virginia Highlands Community College. A part-time evening/weekend LPN to RN 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 on an extended plan. General education courses listed in Year 1 must be completed before the student can begin Year 2.

## Admission Requirements for LPN to RN Program

Admission requirements for the part-time evening/weekend LPN to RN nursing program are the same as the regular program with the following exceptions:

- Current LPN license.
- Applicants must have graduated from an LPN program after May 15, 2014 OR must provide documentation of the equivalent of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.
- Be an accepted student in the regular VATNP program.
- Completion of 26 credits of support (general education) courses required for graduation from the Nursing program: BIO 141, BIO 142, ENG 111, ENG 112, MTH 126, ITE 119, PSY 231, PSY 232, and SDV 100.


## Opportunities for Employment

Employment opportunities for the Registered Nurse include, but are not limited to, staff positions in hospitals, nursing homes, health departments, physician's offices, clinics, home health agencies, day care centers, public schools, and civil service.

## PROGRAM OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| PSY | 231 | Life Span Human Development\| | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR FALL |  |  |  |  |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| ENG | 112 | College Composition II | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy \& Physiology II | 4 |  |
| MTH | 126 | Math for Allied Healh | 2 |  |
| PSY | 232 | Life Span Human Development II | 3 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| NUR | $115^{*}$ | LPN Transition | 6 |  |
| NUR | 136 | Principles of Pharmacology I | 1 |  |
| NUR | 137 | Principles of Pharmacology II | 1 |  |
| NUR | 226 | Health Assessment | 2 |  |
| SECOND YEAR FALL |  |  |  |  |
| NUR | 205 | Intro to Second Level Nursing | 5 |  |
| NUR | 236 | Principles of Pharmacology III | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| NUR | 201 | Psychiatric Nursing | 3 |  |
| THIRD YEAR SUMMER |  |  |  |  |
|  |  | Humanities Elective ${ }^{1}$ | 3 |  |
| THIRD YEAR FALL |  |  |  |  |
| NUR | 245 | Maternal/Newborn Nursing | 3 |  |
| NUR | 254 | Dimensions of Professional Nursing | 2 |  |
| THIRD YEAR SPRING |  |  |  |  |
| NUR | 208 | Acute Medical-Surgical Nursing | 6 |  |
| NUR | 237 | Principles of Pharmacology IV | 1 |  |
| Total Minimum Credits for Degree |  |  | 60 |  |

*Upon completion of NUR 115, credit will be awarded for NUR 105, 108, 109 and 114 ( 15 credits). These credits will appear on the student's official transcript.
${ }^{1}$ Humanities electives include: ART 101, 102; CST 130, 151, 152; ENG 241, 242, 243, 244, 251, 252; HUM 100, 201, 202; MUS 121, 122; PHI 101, 220, 225, 226, 227; REL 200, 210, 231, 232.

## State Approval and Accreditation

The program is approved by the Virginia Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-975-5000, fax 404-975-5020, website: www.acenursing.org).

## Admission Requirements

Admission to the Virginia Appalachian Tricollege Nursing Program is a selective process. The program is open to applicants who are free of any physical or mental condition which 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:

1. Graduation from high school or satisfactory completion of the G.E.D.
2. The completion of one unit each of general biology (with laboratory) and chemistry with no grade below a "C" prior to application deadline (deficiencies can be made up through developmental studies or college courses).
3. Completion of Virginia Placement Tests (VPT) within 2 years prior to application with demonstrated proficiency in MTE $1-4$, or SAT math score of $520 / A C T$ math score of 22 , or completion of college-level math class equivalent to MTH 151 or higher with a grade of "C" or higher. Those who do not meet this requirement must complete MTE 1-4 prior to application to the program. Students must have satisfactory VPT scores in reading and writing. All prescribed developmental work must be completed prior to application deadline.
4. A 2.5 grade point average (GPA) for high school courses** or a 2.5 curricular GPA for college coursework.
5. College students must be in good standing with the most recently attended institution with a minimum GPA of 2.0.
6. Completion of Health Science Program Application for each academic year interested in being considered for the nursing program.
7. Satisfactory performance (national percentile score of 45 or higher) on a nursing preadmission test.
** If the student has completed a minimum of 12 college credits that are included in calculating the curricular GPA (non-developmen-
tal courses), the 2.5 high school GPA requirement will be waived.

Nursing program application packets will be accepted in the Admissions office between September 1, 2016 and February 1, 2017. Packets must include high school transcript or GED test scores (if applicable). Currently licensed LPN applicants must also include a copy of current LPN license and documentation of graduation from an approved LPN program. LPNs who graduated before May 15, 2014 must provide documentation of the equivalent of 1 year (2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

The Admissions office will suspend processing applications if all transcripts are not attached. Once a packet is submitted, additional documentation will not be accepted. Transcripts from other Virginia Community Colleges are not required; however, any Virginia Community Colleges attended must be listed on both the college application and the Health Science Program application.

All prerequisites (general biology, chemistry, English and math proficiency) must be met and all documents submitted by the February 1 deadline. Further details of the application process can be found at www.mecc.edu (click Programs and Degrees, Associate of Applied Science, Nursing, and Health Science Program Admission).

Out-of-region applicants will only be considered for openings in the nursing program after all qualified in-region applicants are considered. To be considered in-region, an applicant must be domiciled within the service region for 12 months prior to the program application deadline.

## LPN to RN Transition

Currently licensed LPNs who have been accepted to the nursing program may be offered the option of entering a summer LPN to RN bridge program providing they have completed all the general education courses required as outlined in the Nursing Track 3: LPN-RN Bridge curriculum or Track 4: PartTime Evening Weekend LPN-RN Bridge curriculum. Applicants must have graduated from an LPN program after May 15, 2014 OR
must provide documentation of the equivalent of 1 year ( 2000 hours) of full-time LPN work experience in direct patient care during the past three years with written verification from employer.

## 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 college and the VATNP. The student may be asked to provide course descriptions, documentation of completed direct patient care clinical time, course syllabi, achievement or progressive testing scores, demonstration of competency in critical nursing skills, and selected data from the course instructor or program director 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. 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. Nursing courses which are being transferred must have been completed within three (3) years prior to admission to the nursing program.

## Program Requirements

Prior to enrollment in any NUR course, the student must provide the following documentation. (For more information see the VATNP website at www.vhcc.edu/vatnp):

- Required Student Forms
- Annual Student Statement of Health form
- Student Information, Physical and Immunization forms. The VATNP physical examination form must be completed by a medical practitioner, MD, PA or CNP.
o Immunizations include Tetanus, Mumps-Measles-Rubella (MMR), Varicella, and Hepatitis B
o Current testing for tuberculosis, either Mantoux Tuberculin Skin Test (TB Tine Test is not accepted) or chest X-ray must be provided
o Documentation of ability to perform physical demands required in direct patient care activities.
- Purchase a background check, drug screen,
and Medical Document Package from Certified Background
- Clearance of criminal background check and drug testing
- Proof of CPR certification, American Heart Association, "Basic Life Support (BLS) for Healthcare Providers" completed during the summer (May 16-August 16) prior to admission to NUR courses and maintained throughout the program
The cost of these requirements is the responsibility of the student.


## Special Notes

- The State Board of Nursing has the authority to deny license to any applicant who has violated any of the provisions of 54.13007 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 BARRIER CRIMES, Code of Virginia 63.2-1726 at http://hope-tfc.org/FP/Barrier\ Crimes. pdf). Students with convictions or positive drug tests may be prohibited from clinical practice and may not be able to complete the program requirements.
- Additional annual immunization requirements: Flu immunizations are required by most healthcare agencies and are usually available in fall semester.


## Physical Demands

Program activities include duties that frequently require squatting, bending, kneeling, reaching, and stair climbing; lifting and carrying up to 50 pounds; frequent pushing and pulling up to 200 pounds with assistance; occasional lifting up to 200 pounds with assistance and occasional carrying up to 5174 pounds. Duties also require constant use of acute sense of sight, hearing, touch, and speech. Environmental conditions include procedures that involve handling blood and body fluids using universal precautions.

## Course Requirements

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.

Most previous general education college credits will be accepted regardless of completion date; however, anatomy and physiology and the computer technology requirements will not be accepted if completed more than ten (10) years prior to admission to the nursing program. MTH 126 must be completed within five (5) years of admission to the nursing program. CPR certification must be maintained throughout the program. Students must complete all courses listed in the first year of the curriculum before being allowed to enter the second year. Exceptions due to unusual circumstances must be approved by the Dean of the program.

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 nursing program faculty reserves the right to recommend, through appropriate channels, the withdrawal of any student who does not exhibit suitable demeanor/attendance.

## Program Progression

Students must earn a minimum grade of "C" in all required courses and maintain a minimum cumulative GPA of 2.0 to remain eligible for continued enrollment in the nursing program. In addition during the NUR 105 or NUR 115 course, a Comprehensive Drug Calculation Exam (CDCE) will be administered to verify 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.

Any student who earns a final grade lower than a " $C$ " in a required course (either general education or nursing courses) must repeat the course and earn a final grade of "C" or better before taking the next course in the sequence. A student must obtain permission from the Dean of VATNP 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.


## Reapplication/Readmission Process

Students who are not successful in the first semester nursing course (NUR 108 or 115) must
reapply to the nursing program. A new nursing program application packet must be submitted prior to the application deadline.

A student who wishes to reenter the nursing curriculum at any other level (e.g., NUR $105,109,114,136,137,201,205,208,226$, $236,237,245$ or 254 ) must write a letter to the program dean requesting readmission in the semester prior to the semester of enrollment. Re-enrollment must occur no later than three years from successful completion of NUR 108 or NUR 115 or student will have to repeat all nursing courses. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. Each student's application for readmission will be considered by the nursing faculty and the decision to readmit will be based on additional 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.

A student who has two (2) academic failures or withdrawals in separate semesters will be ineligible for reenrollment in the program. Such a student may not be readmitted if the cumulative grade point average is less than 2.0, including all courses attempted other than nursing.

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 program dean and the vice president of academic and student services.

## Financial Requirements

In addition to the usual college tuition and fees, the nursing program requires: uniforms with accessories, textbooks, progressive testing and remediation program, physical exam, immunizations, Mantoux Tuberculin Skin Test or chest x-ray, a background check, drug screen, and Medical Document Package, and CPR certification.

Students are also responsible for transportation to and from the college and health agencies used for clinical experience.

## Clinical Contracts

The VATNP has contracts with clinical agencies for both student and patient safety. 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. 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.
Student releases clinical agencies, its agents and employees from any liability for any injury or death to him/herself or damage to his/ her property arising out of agreement or 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.

Proper uniform must be worn when participating in clinical activities.

For Further Information Contact:
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## Associate of Applied Science Degree <br> Paralegal Studies (260)

## Program Description

The Paralegal Studies program 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 and skills to perform specific legal tasks under the supervision of an attorney. In addition, the program helps prepare individuals for paralegal certification exams.

## Opportunities For Employment

The Paralegal Studies program 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 and skills to perform specific legal tasks under the supervision of an attorney. In addition, the program helps prepare individuals for paralegal certification exams.

## Program Requirements

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 advisor. Chances of success in this field are increased if the student has good organizational, analytical, and academic skills and enjoys working with people in a complex, fast-paced work environment. Classes are offered both on campus and online.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| AST | 141 | Word Processing \| | 3 |  |
| BUS | 241 | Business Law I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| LGL | 110 | Intro to Law \& the Legal Assistant | 3 |  |
| LGL | 120 | Legal Terminology | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ITE | 119 | Information Literacy | 3 |  |
| LGL | 115 | Real Estate Law | 3 |  |
| LGL | 117 | Family Law | 3 |  |
| LGL | 125 | Legal Research | 3 |  |
| MTH | 141 | Business Mathematics I | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| AST | 205 | Business Communications | 3 |  |
|  |  | HLT or PED Elective | 1 |  |
| LGL | 126 | Legal Writing | 3 |  |
| LGL | 216 | Trial Preparation \& Discovery Practice | 3 |  |
| LGL | 218 | Criminal Law | 3 |  |
| PLS | 211 | U.S. Government I | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |
| SECOND YEAR SPRING |  |  |  |  |
| AST | 265 | Legal Office Procedures \| | 3 |  |
| LGL | 225 | Estate Planning \& Probate | 3 |  |
| LGL | 230 | Legal Transactions | 3 |  |
| LGL | 290 | Internship/Legal Assisting | 3 |  |
| PSY | 120 | Human Relations ${ }^{1}$ | 3 |  |
|  |  | Humanities Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

${ }^{1}$ Students may take PSY 120 or PSY 126. Those who plan to transfer to a 4-year college must register for PSY 200.

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## Associate of Applied Science Degree <br> Police Science (464)

## Program Description

At MECC you'll find a fascinating and challenging Police Science curriculum that includes courses in Criminal Law, Investigation, Juvenile Delinquency, and Police Administration. The program is structured to prepare individuals for careers in 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.

## Opportunities For Employment

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

Entry into the program requires taking the English and mathematics placement tests. If deficiencies are found, you will be required to correct them by registering for developmental studies. 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:

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course | Course Title | Credit | Progress |  |
| ADJ | 100 | Survey of Criminal Justice | 3 |  |
| ADJ | 131 | Legal Evidence | 3 |  |
| ADJ | 171 | Forensic Science I or Science <br> Elective | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |

FIRST YEAR SPRING

| ADJ | 107 | Survey of Criminology | 3 |  |
| :--- | :--- | :--- | :---: | :---: |
| ADJ | 130 | Intro to Criminal Law | 3 |  |
| ADJ | 236 | Principles of Criminal <br> Investigation | 3 |  |
|  |  | HLT, PED, or ADJ 138/127 | 1 |  |
| ADJ | 172 | Forensic Science II or Science <br> Elective | 4 |  |
|  |  | Elective | 3 |  |

SECOND YEAR FALL

| ADJ | 105 | Juvenile Justice System | 3 |  |
| :--- | :--- | :--- | :---: | :---: |
| ADJ | 111 | Law Enforcement Organization <br> \&Administration | 3 |  |
| ADJ | 133 | Ethics and the Criminal Justice <br> Professional | 3 |  |
|  |  | Humanities Elective | 3 |  |
| MTH | 151 or | Math for Liberal Art lor Busi- <br> ness Mathematics | 3 |  |
| SOC | 200 | Principles of Sociology | 3 |  |

SECOND YEAR SPRING

| ADJ | $\begin{aligned} & 296 \text { or } \\ & 198 \\ & \hline \end{aligned}$ | On-Site Training in Criminal Justice or Seminar and Project | 3 |  |
| :---: | :---: | :---: | :---: | :---: |
| ADJ | 227 | Constitutional Law for Justice Personnel | 3 |  |
| PSY | 200 | Principles of Psychology | 3 |  |
| CST | $\begin{aligned} & 105 \text { or } \\ & 100 \\ & \hline \end{aligned}$ | Oral Communication or Principles of Public Speaking | 3 |  |
|  |  | Elective | 3 |  |
| Total Minimum Credits for Degree |  |  | 67 |  |

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## Associate of Applied Science Degree Respiratory Therapy (181)

## Program Description

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 Written Registry examination and Clinical Simulation examination to be credentialed as a Registered Respiratory Therapist (RRT).

## Accreditation

The Respiratory Therapy program is fully accredited by the Commission on Accreditation for Respiratory Care (www.coarc. com).

## Opportunities for Employment

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. The respiratory therapist sees a diverse group of patients ranging from newborn and pediatric patients to adults and the elderly.

Job opportunities are very good in this area and nationwide. The United States Bureau of Labor Statistics projects "employment of respiratory therapists to increase much faster than the average for all occupations through the year 2020." In 2013, the U.S. Bureau of Labor Statistics reported the national average annual earnings of respiratory therapists were $\$ 57,880$ and Virginia had an average annual earnings of $\$ 56,550$.

## Admission Requirements

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

PROGRAM OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Course \# | Course Title | Credit | Progress |  |
| NAS | 171 | Human Anatomy and Physiology | 4 |  |
| RTH | 102 | Integrated Sciences for <br> Respiratory Care | 3 |  |
| RTH | 110 | Fund. Theory \& Procedures for <br> Respiratory Care | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
|  | Solial Sciecsc/Humanities <br> Elective |  |  |  |
| RIRST |  |  |  |  |

Core competencies for HLT 105, Cardiopulmonary
Resuscitation, are covered within RTH 110. Students will receive a BLS Healthcare Provider Card.
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 and submit to Enrollment Services in Godwin Hall. 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.

## Special Considerations

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.

Physical demands in this program include duties that frequently require walking, bending, reaching and lifting; pushing and pulling with assistance and occasional carrying. Du-
ties also require constant use of acute sense of sight, hearing, touch, and speech.

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.

## 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.

## 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.

NOTE: 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.

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## Associate of Applied Science Degree <br> Technical Studies Welding (718-02)

## Program Description

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.

## Opportunities For Employment

Graduates can expect to find employment as welders in a variety of industries including mining, manufacturing and construction.

## Special Considerations

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.

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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
|  |  | Math/Science Elective | 3 |  |
| WEL | 100 | Fundamentals of Welding | 3 |  |
| WEL | 115 | Arc and Gas Welding | 3 |  |
| WEL | 123 | Arc Welding I | 3 |  |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| IND | 137 | Team Concepts | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
|  |  | Humanities Elective | 3 |  |
|  |  | Social Science Elective | 3 |  |
| WEL | 124 | Arc Welding II | 3 |  |
|  |  | Welding Elective or Equivalent Experience | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| ITE | 119 | Information Literacy | 3 |  |
| IND | 101 | Quality Assurance Tech | 3 |  |
| DRF | 200 | Survey of Computer-Aided Drating | 4 |  |
|  |  | Social Science Elective | 3 |  |
| WEL | 126 | Pipe Welding | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ENG | 115 | Technical Writing | 3 |  |
|  |  | Personal Development Elective | 1 |  |
|  |  | Welding Elective or Equivalent Experience | 3 |  |
|  |  | Welding Elective or Equivalent Experience | 3 |  |
|  |  | Welding Elective or Equivalent Experience | 3 |  |
|  |  | Welding Elective or Equivalent Experience | 3 |  |
| Total Minimum Credits for Degree |  |  | 66 |  |

## 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.

- Administration of Justice - Corrections Option
- Administration of Justice - Law Enforcement Option
- Air Conditioning and Refrigeration
- Clerical Assistant
- General Education
- Industrial Maintenance
- Legal Office Assisting
- Medical Office Coding and Procedures
- Nursing - LPN
- Welding


## Certificate

Administration of Justice - Corrections Option (406-01)

## Program Description

The Administration of Justice Certificate was developed out of the expressed needs of local law enforcement, other police sciences agencies and correctional institutions. The Certificate in Administration of Justice is designed to enhance the job performance of existing criminal justice personnel and to provide basic education for prospective officers and professionals. The Certificate allows specialization in one of two fields in Law Enforcement or Corrections.

## Opportunities For Employment

Areas of employment enhanced by this curriculum are commercial and industrial security officer, local, state, and federal law enforcement officer, or corrections personnel.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

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PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ADJ | 100 | Survey of Criminal Justice | 3 |  |
| ADJ | 105 | Juvenile Justice | 3 |  |
| ADJ | 140 | Introduction To Corrections | 3 |  |
| ADJ | 107 | Survey of Criminology | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ADJ | 146 | Adult Correction Institutions | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| ADJ | 241 | Correctional Law I | 3 |  |
|  |  | Social Science Elective | 3 |  |
| ADJ | 246 | Correctional Counseling | 3 |  |
| ADJ | $\begin{aligned} & 296 \text { or } \\ & 198 \end{aligned}$ | On-Site Training Criminal Justice or Seminar and Project | 3 |  |
| Total Minimum Credits for Certificate |  |  | 34 |  |

## Certificate

Administration of Justice - Law Enforcement Option (406-02)

## Program Description

The Administration of Justice Certificate was developed out of the expressed needs of local law enforcement, other police sciences agencies and correctional institutions. The Certificate in Administration of Justice is designed to enhance the job performance of existing criminal justice personnel and to provide basic education for prospective officers and professionals. The Certificate allows specialization in one of two fields in Law Enforcement or Corrections.

## Opportunities for Employment

Areas of employment enhanced by this curriculum are commercial and industrial security officer, local, state, and federal law enforcement officer, or corrections personnel.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ADJ | 100 | Survey of Criminal Justice | 3 |  |
| ADJ | 111 | Law Enforcement Organization and Administration | 3 |  |
| ADJ | 131 | Legal Evidence | 3 |  |
| ADJ | 107 | Survey of Criminology | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ADJ | 130 | Introduction to Criminal Law | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| ADJ | 236 | Principles of Criminal Investigation | 3 |  |
|  |  | Social Science Elective | 3 |  |
| ADJ | 227 | Constitutional Law for Justice Personnel | 3 |  |
|  | 3 | On-Site Training Criminal Justice or Seminar and Project | 3 |  |
| Total Minimum Credits for Certificate |  |  | 34 |  |

For Further Information Contact:
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276.523.2400 ext. 327

Cindy Ringley
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276.523.2400 ext. 264

Tommy Clements, Dean
tclements@mecc.edu
276.523.2400 ext. 431

## Certificate

Air Conditioning and Refrigeration (903)

## Program Description

The Air Conditioning \& Refrigeration program is designed to provide you with the job skills necessary for employment as a beginning electrician or as repairer of air conditioning equipment. 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.

## Opportunities for Employment

The Certificate in Air Conditioning \& Refrigeration is designed to prepare you for occupations such as Air Conditioning Services \& Installation Technician, or beginning Electrician (residential, commercial, or industrial wiring).

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| AIR | 111 | Air Conditioning \& Refrigeration Controls $\mid$ | 3 |  |
| AIR | 121 | Air Conditioning \& Refrigeration I | 4 |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| ELE | 131 | National Electric Code I | 3 |  |
| BLD | 110 | Introduction to Construction | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| AIR | 112 | Air Conditioning \& Refigeration Controls \|| | 3 |  |
| AIR | 154 | Heating Systems I | 3 |  |
| ENE | 230 | Geothermal Applications I | 4 |  |
| ELE | 156 | Electrical Control Systems I | 3 |  |
| ELE | 110 | Home Electric Power | 3 |  |
| FIRST YEAR SUMMER |  |  |  |  |
| AIR | 116 | Duct Construction and Maintenance | 2 |  |
| ENG | 111 | College Composition | 3 |  |
| AIR | 281 | Energy Management \| | 3 |  |
|  |  | Social Science Elective | 3 |  |
| MTH | 103 | Applied Technical Mathematics | 3 |  |
| Total Minimum Credits for Certificate |  |  | 48 |  |

For Further Information Contact:
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## Certificate

Clerical Assistant (218)

## Program Description

The Clerical Assistant certificate is designed to prepare persons for an entrylevel position in an office. Keyboarding, filing, word processing, administrative support technology courses, and general education courses provide individuals with the knowledge and skills necessary for performance in today's automated office.

## Opportunities for Employment

In the immediate area and throughout the nation, business, industry, and government offices have job opportunities for entrylevel office workers.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

For Further Information Contact:
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Fran Doyle, Assistant Dean
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276.523.2400 ext. 313
27.523.240

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ACC | 115 | Applied Accounting | 3 |  |
| AST | 107 | Editing/Proofreading Skills | 3 |  |
| AST | 141 | Word Processing I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| AST | 236 | Specialized Sofware Applications | 3 |  |
| MKT | 170 | Customer Service | 1 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| AST | 108 | Telephone Techniques | 1 |  |
| AST | 137 | Records Management | 3 |  |
| AST | 150 | Desktop Publishing | 1 |  |
| AST | 155 | Introduction to Desktop Information Management | 1 |  |
| AST | 160 | Learning the Internet for Business | 1 |  |
| AST | 238 | Word Processing Advanced Operations | 3 |  |
| MTH | 141 | Business Mathematics | 3 |  |
| PSY | 120 | Human Relations | 3 |  |
| SDV | 106 | Preparation for Employment | 1 |  |
| Total Minimum Credits for Certificate |  |  | 34 |  |

## Certificate <br> General Education (695)

## Program Description

The General Education Certificate is designed as an intermediate step on the student's progress toward a two or fouryear degree. This certificate is awarded as recognition of completion of a core of specified general education requirements in the associate degree program. The associate degree is the gateway for transfer to a senior institution through one of many articulation and guaranteed admission agreements currently available to MECC students. For more information on programs for transfer to four-year colleges, review MECC's Associate of Arts \& Sciences degree programs.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may qualify for college credit for verified on-the-job experiences. Students are encouraged to check the mathematics requirements of the fouryear college or university to which they plan to transfer to determine the appropriate courses to be taken at MECC. In addition, students should contact the appropriate four-year institution to determine the transferability of electives. Students planning to become teachers should check the requirements of Teacher Education programs at four-year institutions.

The college's Transfer Counselor or faculty advisors are available to assist students in selecting courses for transfer.

For Further Information Contact:
Dr. Harriette Arrington, Dean
harrington@mecc.edu
276.523.2400 ext. 243

Beth Boggs, Transfer Counselor
bboggs@mecc.edu
276.523.2400 ext. 324

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| B10 | 101 | General Biology I | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| MTH | $\begin{aligned} & 151 \text { or } \\ & 163 \end{aligned}$ | Math for Liberal Arts I or PreCalculus I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
|  |  | Social Science Elective | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 102 | General Biology II ${ }^{1}$ | 4 |  |
| ENG | 112 | College Composition II | 3 |  |
|  |  | Humanities Elective ${ }^{2}$ | 3 |  |
| MTH | $\begin{aligned} & 152 \text { or } \\ & 164 \\ & \hline \end{aligned}$ | Math for Liberal Arts II or Pre-Calculus II | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Certificate |  |  | 30 |  |

${ }^{1}$ Students may substitute CHM 111/112, or PHY 201/202. ${ }^{2}$ See approved list of humanities courses

## Certificate <br> Industrial Maintenance (990)

## Program Description

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.

## Opportunities for Employment

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

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| DRF | 160 | Machine Blueprint Reading | 3 |  |
| ELE | 140 | Basic Electricity and Machinery | 4 |  |
| MTH | 103 | Applied Technical Mathematics | 3 |  |
| SAF | 126 | Principles of Industrial Safety | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 156 | Electrical Control Systems I | 3 |  |
| IND | 137 | Team Concepts \& Problem Solving | 3 |  |
| MEC | 266 | Applications in Fluid Mechanics | 3 |  |
| WEL | 198 | Seminar \& Project | 3 |  |
| FIRST YEAR SUMMER |  |  |  |  |
| ELE | 239 | Programmable Controllers | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| MEC | 205 | Piping \& Auxiliary Systems | 3 |  |
| IND | 125 | Installation and Preventative Maintenance | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Certificate |  |  | 41 |  |

For Further Information Contact:
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## Certificate <br> Legal Office Assisting (261)

## Program Description

The Legal Office Assisting program is designed to provide entry-level legal assisting skills for individuals preparing for positions in private law firms, mortgage companies, banks, title insurance companies, firms in or associated with the mining industry, private corporations, government and administrative agencies. Specialized courses in legal assisting and word processing are complemented by general education courses.

## Opportunities for Employment

The Legal Office Assisting program prepares students for a wide range of entrylevel positions in the legal/paraprofessional field.

## Program Requirements

Students are required to take English and mathematics placement tests. Chances of success in this field are increased if students have good organizational skills and like to work with people. Classes are offered both on-campus and online.

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| Course |  |  |  |  |  | Course Title | Credit | Progress |
| AST | 108 | Telephone Techniques | 1 |  |  |  |  |  |
| BUS | 241 | Business Law I | 3 |  |  |  |  |  |
| ENG | 111 | English Composition I | 3 |  |  |  |  |  |
| LGL | 110 | Introduction to Law \& the <br> Legal Assistant | 3 |  |  |  |  |  |
| LGL | 120 | Legal Terminology | 3 |  |  |  |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |  |  |  |
| MKT | 170 | Customer Service | 1 |  |  |  |  |  |
| FIRST YEAR SPRING | 3 |  |  |  |  |  |  |  |
| AST | 141 | Word Processing I | 3 |  |  |  |  |  |
| AST | 238 | Word Procsssing Advanced <br> Operations | 3 |  |  |  |  |  |
| LGL | 115 | Real Estate Law | 3 |  |  |  |  |  |
| LLGL | 117 | Family Law | 3 |  |  |  |  |  |
| MTH | 141 | Business Mathematics I | 3 |  |  |  |  |  |
| AST | 155 | Introduction to Desktop <br> Information Management <br> (Outlok) | 1 |  |  |  |  |  |
| AST | 160 | Learning the Internet for <br> Business | 1 |  |  |  |  |  |
| Total Minimum Credits for Certificate | 32 |  |  |  |  |  |  |  |

For Further Information Contact:
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fdoyle@mecc.edu
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## Certificate

Medical Office Coding \& Procedures (285)

## Program Description

The Medical Office Coding \& Procedures certificate is designed to provide entrylevel skills for individuals preparing for employment in the health care industry as medical coders, medical office assistant, medical secretaries, insurance billing specialist, or medical records technicians. The curriculum provides basics in medical, diagnostic and procedural terminology and coding, medical office procedures and the reporting of data to third party payers, insurance companies and government agencies for reimbursement.

## Opportunities for Employment

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 help prepare you for a wide range of entry level positions in health care facilities such as clinics, private medical practices, and hospitals.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may not take a course out of normal sequence without the approval of your instructor.

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276.523.2400 ext. 313

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| AST | 108 | Telephone Techniques | 1 |  |
| AST | 141 | Word Processing I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| HIM | 111 | Medical Terminology I | 3 |  |
| HIM | 130 | Health Care Info Systems | 3 |  |
| ITE | 119 | Information Literacy | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| AST | 271 | Medical Office Procedures | 3 |  |
| HIM | 112 | Medical Terminology II | 3 |  |
| HIM | 150 | Health Records Management | 3 |  |
| HIM | 253 | Health Records Coding | 4 |  |
| HIM | 265 | Facility Based Medical Coding | 3 |  |
| AST | 155 | Introduction to Desktop <br> Information Management <br> (Outtook) | 1 |  |
| SECOND YEAR FALL |  |  |  |  |
| AST | 215 | Medical Keyboarding | 3 |  |
| NAS | 171 | Human Anatomy and Physiology I | 4 |  |
| HIM | 254 | Advanced Coding \& Reimbursement | 4 |  |
| MTH | 141 | Business Math I | 3 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Cerrificate |  |  | 50 |  |

## Certificate

Practical Nursing Certificate Leading to LPN (157)

## Program Description

The Practical Nursing curriculum is designed to prepare beginning practitioners with the knowledge and skills, as entry level nurses, to care for patients of all age groups. Students will be prepared to assist in meeting the health needs of the community through provision of quality nursing care as a Licensed Practical Nurse. Upon successful completion of the program, graduates are eligible to apply to take the National Council Licensure Examination (NCLEX$\mathrm{PN})$. The program length is three semesters (one year). The program offers two admissions per year - during the spring and fall semesters.

## Accreditation

This program is fully approved by the Virginia State Board of Nursing. The Practical Nursing program, as part of Mountain Empire Community College, is accredited by the Southern Association of Colleges and Schools.

## Opportunities for Employment

Opportunities for the Licensed Practical Nurse include employment in nursing homes, clinics, day-care centers, school systems, physicians' offices, rehabilitation facilities, industry, the military, home health, hospitals, and private duty nursing.

## Admission Requirements

Admission to the Practical Nursing program is a selective process. The Practical Nursing program is open to applicants who are free of any physical or mental condition which 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:

- Completion of Practical Nursing Program Application for each academic year interested in being considered for the Practical Nursing program.
- State accredited high school diploma, home school diploma, or GED.
- High school/GED Graduates with less than twelve (12) transferable college credits completed.

| FIRST SEMESTER (FALL OR SPRING) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| ENG | 111 | College Composition ${ }^{1}$ | 3 |  |
| PNE | 161 | Nursing in Health Changes I | 6 |  |
| MTH | 126 | Math for Allied Health ${ }^{2}$ | 2 |  |
| PNE | 143 | Applied Nursing Skills | 1 |  |
| PNE | 155 | Body Structure \& Function ${ }^{3}$ |  |  |
| PNE | 173 | Pharmacology for PN's | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |
| SECOND SEMESTER (SPRING OR SUMMER) |  |  |  |  |
| PNE | 158 | Mental Health and Psychiatric Nursing | 1 |  |
| PNE | 162 | Nursing in Health Changes II | 10 |  |
| PNE | 295 | Care of Children | 2 |  |
| PSY | 230 | Developmental Psychology ${ }^{4}$ | 3 |  |
| THIRD SEMESTER (SUMMER OR FALL) |  |  |  |  |
| PNE | 164 | Nursing-Health Changes IV | 10 |  |
| PNE | 195 | Care of Maternal and Newborn Clients | 2 |  |
| HLT | 130 | Nutrition and Diet Therapy ${ }^{1}$ | 2 |  |
| PNE | 145 | Trends ${ }^{4}$ | 1 |  |
|  |  | Social Science Elective | 3 |  |
| Total Minimum Credits for Certificate |  |  | 49 |  |

${ }^{1}$ ENG 111, SDV 100, HLT 130, PSY 230 are curricular courses and may be repeated; but, must be completed by the end of program.
${ }^{2}$ MTH126 is a curricular course and may be repeated but must be completed prior to admission or within the first semester for program progression.
${ }^{3}$ PNE 155 - may substitute BIO 141 and 142 for PNE 155. BIO 141 and 142 must be completed prior to or within first and second semesters for program progression. Due to BIO 141 and 142 being an acceptable substitute to PNE 155 , failure within BIO 141 or 142 will count towards one of the PNE course failures.
${ }^{4}$ PSY 230- Students wishing to bridge or continue in the RN program will need to take PSY 231 and 232 instead of PSY 230.
${ }^{5}$ PNE 145 - PNE 199 supervised study course required if $90 \%$ probability on NCLEX predictor is not achieved during Trends.

Students may take all non-nursing courses prior to entrance into the LPN program. However, after admission, courses must be taken and successfully completed during the defined curricular schedule.

- The cumulative high school GPA will be used when less than twelve (12) transferable college credits are completed. The GPA for GED recipients will be computed based on the total GED score.
Applicants are solely responsible for completing and/or submitting the following items:
- MECC application for admission to the college
- MECC Practical Nursing Program Application (Spring Semester - accepted August 1 October 1; Fall Semester - accepted March 1 - June 1). Applicants will be notified of status for admission during the month following application deadline.
- A copy of high school transcript or GED scores and any college transcripts must be submitted to Enrollment Services attached to the Application for Practical Nursing as part of the application packet.
- It is the sole responsibility of the applicant to ensure the application file is complete and all supporting documents have been received in Enrollment Services/Admission.
Anyone who has been convicted of a federal or state felony or misdemeanor (excluding minor traffic violations) and anyone with a history of drug or alcohol habituation should arrange for a conference with the Program Director or a nursing faculty member upon application to the program.


## Admission to Practical Nursing program is based upon:

- College placement scores indicating readiness for MTH 126 or higher
- College placement scores indicating readiness for ENG 111
- Biology with a lab (high school or college) with a "C" or better. Applied biology and/ or ecology does not satisfy this requirement. Biology requirements must have been completed within five (5) years of application. PNE 155, BIO 101 or BIO 102, BIO 141 or BIO 142, BIO 145, NAS 171 will meet the admission requirements.
- Cumulative GPA will be calculated at $40 \%$ into the overall scoring rubric. GED recipients will be ranked according to their general equivalent diploma scores. The most current grade recorded for coursework will be used in admission consideration.
- TEAS 6 entrance testing
a. Applicants must complete the Test of Essential Academic Skills (TEAS). Testing can be completed in Student Services a maximum of twice a year-once for Fall and once for Spring placement.

Tests will be administered during the month of July/August and November/ December (or as timing allows). Applicants must complete all sections on the TEAS. The individualized adjusted score will be calculated at $25 \%$ into the overall scoring rubric.
b. Students can choose to use previous completed TEAS testing scores. Testing scores must be completed and dated within the last two (2) years.
c. Testing fee: $\$ 55.00$. (price for testing subject to change).
d. Paying for TEAS testing: Fees for TEAS testing must be paid by credit card, debit card, or prepaid card in the business office. Please bring one of these methods of payment with you on the day of your test. Pay in the business office. Take the yellow receipt to student services as proof of payment. Student services will help you get your test started.

- Study guides for the TEAS test can be found online at www.atitesting.com, uniontestprep. com/teas, the Wampler Library on MECC campus, other resources to research: search term: TEAS study guides
- General Education Course Requirements. These are the required general education program courses that will be used to give points towards admission. Students will receive credit for up to 14 credits for completed nonnursing coursework. These courses will be calculated into the overall scoring rubric at $35 \%$. Students are highly encouraged, but not required, to complete this coursework prior to submission of application.
a. -ENG 111-3 credits
b. -MTH 126-2 credits
c. -HLT 130-1 credit
d. -SDV 100-1 credit
e. -PSY 231 and 232-6 credits (recommended for those students planning for LPN to RN bridge)
f. -PSY 230-3 credits
g. -BIO 141 and 142-8 credits (recommended for those students planning for LPN to RN bridge)
h. -PNE 155-3 credits
i. -BIO 145-4 credits


## Other admission point availability:

On the day of the TEAS test, certified nurse aides with a minimum of 1,000 hours and 6 months' work experience wishing to receive credit for work experience must submit to the program director:

- A copy of their board certification and an officially sealed letter from human resources verifying length of work experience ( 1,000 hours or 6 months minimum), area of experience, and contact information.
- All documentation will be verified by the program director.


## Selection of Cohort:

- Applicants, submitting applications on time, will be admitted by highest to lowest scores. Applications received after the deadline may be considered: 1) if the cohort is not filled or 2 ) when current enrollment grades are posted.
- Applicants must have minimum 53 points on the scoring rubric to be considered for admission.


## Scoring Rubric

| Criteria | Weight | Calculation | Score |
| :--- | :---: | :--- | :---: |
| Cumulative GPA (high school or college) | $40 \%$ | GPA:___ 10 | - |
| General Education Courses completed | $35 \%$ | Grade Points Earned___/up to $14 \times 35$ | - |
| TEAS V testing (adjusted individual score) | $25 \%$ | IAS TEAS V score____ 0.25 | - |
| Possible bonus points: |  |  |  |
| Certified nurse aid and work experience | +10 points | +10 points |  |
|  |  | Scoring rubric total: |  |

Students should refer to the Practical Nursing Admission Process and the Health Science Program Application for published deadlines and admission criteria.

## 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 should discuss these matters with the Program Director of the Practical Nursing program prior to application.

## Program Requirements <br> Orientation:

- Students accepted into the program are required to attend a mandatory orientation to the program. During this orientation, all requirements to begin training will be discussed. Acceptance letters will outline date, time, and location for orientation.


## 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 six (6) months of program admission.
- 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.
a. Immunizations must be current,
i. If students are unable to provide proof of immunization, titers proving immunity to diseases must be submitted.
ii. A tuberculin test is required on admission and yearly while in the program, except for previous positive reactors who must have a chest x-ray.
iii. MMR X3,
iv. tetanus every 10 years,
v. varicella X2 (or documented history), and
vi. Hepatitis B series X3.
vii. Students must receive an annual flu vaccination or submit physician proof of documented allergy.
- Students must also be certified in CPR (American Heart Association Healthcare Provider or American Red Cross Professional Provider).
- 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.


## 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 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 will not be allowed to finish 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.

## Program Progression

Any student who earns a final grade lower than "C" in any listed curricular course must repeat the course and earn a final grade of "C" or better before taking the next course of sequence. Students are encouraged to repeated courses within the next available semester but must be completed within one year of admission. If over one year, students will be required to submit an application and repeat all PNE coursework. Students will be allowed ONE course failure and repeat of ONE PNE course or recognized course substitute. Upon failure of second course, student will be dismissed from program, regardless of the semester.

Students are allowed two withdrawals from PNE courses. Upon the third withdrawal, the student will be dismissed from the program.

Applicants and enrolled students within the Practical Nursing program must maintain a GPA of 2.0 or higher. Any applicant or enrolled student who fails to maintain a GPA of 2.0 or greater will be dismissed from the program.

All students will be required to complete ATI proctor exams in PNE 161, PNE 164, PNE 158, PNE 173, PNE 136 (OB and pediatrics), and PNE 145. Regardless of letter grade, a level 1 proficiency score is required to successfully complete the above listed coursework. Students who do not achieve a level 1 proficiency score will be given a grade of " $F$ " and be required to repeat the coursework. Students who are unsuccessful (grade D or F) within coursework will not be allowed to take the ATI proctor exams and will be given the grade earned for that course.

Reminder, students may only fail and repeat one PNE, or accepted substitution, course. Upon second failure, student will be dismissed from program.

In the third semester (PNE 145), students will be given an ATI predictor exam. Students are required to score a minimum of $90 \%$ probability of passing boards on first attempt. Students will have two (2) attempts to earn the minimum score of $90 \%$ probability. Students who do not score the minimum of $90 \%$ probability on the exit exam will be given a grade of "F" for the course. Students will be required to repeat the PNE 145 coursework and take PNE 199 -supervised study (graded as: satisfactory/unsatisfactory). Upon satisfactory completion of PNE 145 and PNE 199 coursework, students will be required to retake the predictor exams. Students will be given two (2) attempts to score $90 \%$ or greater probability of passing on first attempt. If $90 \%$ probability is not achieved, students will be given a grade of " $F$ " in PNE 145 and will not earn the certificate of practical nursing and will be ineligible to retake the practical nursing certificate coursework.

Virginia Community College System policy states that no course may be taken more than twice (original enrollment and one repeat). There will be no exceptions to this policy.

## Reapplication to the Practical Nursing program

a. 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 Practical Nursing Program Application form and submit it to Enrollment Services/Admission prior to established deadlines for the next year.
b. Students dismissed for academic rea-
sons can reapply to the Practical Nursing program one time only. These students must complete the nurse aid 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.

## Transfer into the Practical Nursing program

a. Students wishing to transfer from other colleges' nursing programs will be given consideration by the program on an individual basis.
b. 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 to enrollment services with their application.
c. 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.

## Special Considerations

Practical Nursing is an academically rigorous program, but one having the potential to provide a rewarding career for participants.
Practical Nursing classes begin in the fall and spring of each year. This program is a limited enrollment program that accepts a maximum of 25 students in the spring semester and 30 students in the fall semester.
Medical Insurance coverage and personal liability for expenses related to injury and/or illness is the sole responsibility of the student. The College nor program assumes no responsibility for medical expenses and does not provide health insurance for students.

## 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 and testing services (ATI) throughout the program. Upon completion of training, students will be eligible to sit 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 training: $\$ 7500.00$ (subject to change as prices fluctuate).

For more information contact:
Lena L. Whisenhunt, Program Director
lwhisenhunt@mecc.edu
276.523.2400 ext. 421

Sabrina Cowden
scowden@mecc.edu
276.523.2400 ext. 275

Mitzi Jones
mjones@mecc.edu
276.523.2400 ext. 686

Kim Dorton, Health Sciences Coordinator
kdorton@mecc.edu
276.523.2400 ext. 356

## Certificate

Welding (995)

## Program Description

A 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.

## Opportunities for Employment

The certificate in Welding will prepare students for the occupational goal of welder.

## Program Requirements

Students are required to take English and mathematics placement tests. Developmental classes in these areas may be required. Students may qualify for college credit for verified on-the-job experiences.

For Further Information Contact:
PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| WEL | 100 | Fundamentals of Welding | 3 |  |
| WEL | 110 | Welding Process | 3 |  |
| WEL | 115 | Arc and Gas Welding | 3 |  |
| WEL | 123 | Arc Welding I | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ENG | 111 | English Composition \| | 3 |  |
| WEL | 124 | Arc Welding II | 3 |  |
| WEL | 130 | Inert Gas Welding | 3 |  |
| WEL | 141 | Welder Qualification Tests | 3 |  |
| WEL | 198 | Seminar and Project | 3 |  |
|  |  | Social Science Elective | 3 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| WEL | 126 | Pipe Welding I | 3 |  |
| WEL | 160 | Semi-Automatic Welding Process | 3 |  |
| WEL | 129 | Pipefiting \& Fabrication | 3 |  |
| Total Minimum Credits for Certificate |  |  | 43 |  |

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## Career Studies Certificates

A Career Studies Certificate is designed to meet the short-term educational needs of individuals who seek to upgrade occupational skills, learn new skills, or pursue specialized interests. A Career Studies Certificate consists of specialized program options. These options represent a wide variety of career and academic interest course areas. Each option is intended to represent a minimum amount of college course work considered representative of these fields of study and designed as a distinct "mini- curriculum" to meet minimum occupational or adult interest requirements.

## Special Considerations

To be admitted to a Career Studies Certificate Program, one must meet the general requirements for admission to the College. Some courses may require prerequisites or demonstrated entry-level proficiency. Students lacking prerequisites or entry-level proficiency may be required to enroll in the developmental studies program or prerequisite course.

The Career Studies Certificate includes selected specialized courses within each program option. The range of course credits varies among the program options from a minimum of nine semester credits to a maximum of twenty-nine semester credits. Upon satisfactory completion of one of the program options, the graduate will receive the Career Studies Certificate. Students of the College may earn more than one certificate as program option requirements are satisfied.

Career Studies program options will be offered as community needs are identified and institutional resources permit. Normally, courses which are associated with the various program options may be offered when all of the following conditions are met:

- Justifiable student enrollment;
- Adequate facilities are available;
- Qualified instructors are available; and
- Adequate financial resources are available.

The College reserves the right to discontinue any Career Studies option if student interest does not justify its continuation.

## Career Studies Certificate Options

3-D Design
Air Conditioning \& Refrigeration
Building Construction - Electrical Emphasis
Chemical Process Operator
Child Development
Child Development Infant \& Toddler
Child Development Pre-School
Clinical Research Coordinator
Computer Software Specialist - Mobile
Application Development
Construction
Corrections Management \& Supervision
Electricity
Emergency Medical Technician Basic
Emergency Medical TechnicianIntermediate
Emergency Medical TechnicianParamedic
Energy Technology - Electrical
Energy Technology - HVAC

Funeral Service Assistant
Geographical Information Systems
Health Sciences
Help Desk Support
Information Technology Readiness
Law Enforcement Management \& Supervision
Machinery Maintenance
Medical Records Technician
Medical Receptionist \& Transcriptionist
Nursing Assistant
Old Time Music
Pharmacy Technician
Phlebotomy
Real Estate
Small Business Management
Software Development I
Software Development II
Wastewater Plant Operator
Water Plant Operator
Welding Operator

## 3-D DESIGN

Career Studies (221-727-09)

| FIRST YEAR |  |  |  | Course Title |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Credit | Progress |  |  |
| DRF | 160 | Blueprint Reading | 3 |  |
| DRF | 200 | Survey of Computer-Aided Drafting | 4 |  |
| GIS | 200 | Geographic Information Systems I | 4 |  |
| DRF | 233 | Computer-Aided Drafting III | 3 |  |
| MEC | 122 | Desktop Manufacturing Techniques | 3 |  |
| Total Minimum Credits for Certificate | $\mathbf{1 7}$ |  |  |  |

For Further Information Contact: Jake Gilly - jgilley@mecc.edu - 276.523.2400 ext. 334

## AIR CONDITIONING AND REFRIGERATION

Career Studies (221-903-10)

| FIRS | FALL |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| AIR | 111 | Air Conditioning \& Refrigeration Controls 1 | 3 |  |
| AIR | 121 | Air Conditioning \& Refrigeration I | 4 |  |
| FIRST YEAR SPRING |  |  |  |  |
| AIR | 112 | Air Conditioning \& Refrigeration Controls 11 | 3 |  |
| AIR | 154 | Heating Systems I | 3 |  |
| ENE | 230 | Geothermal Applications I | 4 |  |
| Total Minimum Credits for Certificate |  |  | 17 |  |

Jerry Ramey - jramey@mecc.edu - 276.523.2400 ext. 326
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## BUILDING CONSTRUCTION - ELECTRICAL EMPHASIS

Career Studies (221-989-01)
This program is not offered continuously and admission is by permission only.

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| SDV | 100 | College Success Skills | 1 |  |
| BLD | 105 | Shop Practices and Procedures | 2 |  |
| BLD | 110 | Introduction to Construction | 3 |  |
| ELE | 133 | Practical Electricity \| | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 140 | Basic Electricity and Machinery | 4 |  |
| ELE | 134 | Practical Electricity II | 3 |  |
| ENG | 100 | Basic Occupational English | 3 |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| Total Minimum Credits for Certificate |  |  | 22 |  |

[^7]CHEMICAL PROCESS OPERATOR
Career Studies (221-845-01)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| SDV | 107 | Career Education | 1 |  |
| CHM | 101 or 111 | General Chemistry I or College Chemistry I | 4 |  |
| IND | 101 | Quality Assurance Technology I | 3 |  |
| MTH | 105 | Survey of Technical Mathematics I | 2 |  |
| MTH | 106 | Survey of Technical Mathematics II | 2 |  |
| MEC | 205 | Piping \& Auxiliary Systems | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| CHM | 102 or 112 | General Chemistry II or College Chemistry II | 4 |  |
| SAF | 126 | Principals of Industrial Safety | 3 |  |
| PHY | 131 | Applied Physics I | 3 |  |
| ELE | 140 | Basic Electricity and Machinery | 4 |  |
| Total Minimum Credits for Certificate |  |  | 29 |  |

For Further Information Contact: Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## CHILD DEVELOPMENT

Career Studies (221-636-04)

| FIRST YEAR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| CHD | 118 | Methods \& Materials in Language Arts for Young Children | 3 |  |
| CHD | 120 | Introduction to Early Childhood Education | 3 |  |
| CHD | 125 | Creative Activities for Children | 5 |  |
| CHD | 126 | Science \& Math Concepts for Children | 3 |  |
| CHD | $\begin{aligned} & 165 \text { or } \\ & 215 \end{aligned}$ | Observation and Participation in Early Childhood/Primary Settings or Models of Early Childhood Education Programs | 3 |  |
| CHD | 205 | Guiding the Behavior of Young Children | 3 |  |
|  |  | General Electives | 6 |  |
| Total Minimum Credits for Certificate |  |  | 24 |  |

For Further Information Contact: Sue Ella Boatright-Wells, Dean - sboatright@mecc.edu-276.523.7464

CHILD DEVELOPMENT INFANT \& TODDLER OPTION
Career Studies (221-636-05)

| FIRST YEAR |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 118 | Methods \& Materials in Language Arts for Young Children | 3 |  |  |  |  |  |
| CHD | 125 | Creative Activities for Children | 3 |  |  |  |  |  |
| CHD | 165 | Observation and Participation in Early Childhood/Primary Settings | 3 |  |  |  |  |  |
| CHD | 166 | Infant \& Toddler Program | 3 |  |  |  |  |  |
| CHD | 205 | Guiding the Behavior of Young Children | 3 |  |  |  |  |  |
| CHD | 215 | Models of Early Childhood Education Programs | 3 |  |  |  |  |  |
| CHD | 135 | Child Health \& Nutrition | 3 |  |  |  |  |  |
| HLT |  | General Elective | 3 |  |  |  |  |  |
|  | Total Minimum Credits for Certificate | 24 |  |  |  |  |  |  |

For Further Information Contact:
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CHILD DEVELOPMENT PRE-SCHOOL OPTION
Career Studies (221-636-06)

| FIRST YEAR |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 118 | Methods \& Materials in Language Arts for Young Children | 3 |  |  |  |  |  |
| CHD | 120 | Introduction to Early Childhood Education | 3 |  |  |  |  |  |
| CHD | 125 | Creative Activities for Children | 3 |  |  |  |  |  |
| CHD | 126 | Science \& Math Concepts for Children | 3 |  |  |  |  |  |
| CHD | 165 or |  |  |  |  |  |  |  |
| CHD | Observation and Participation in Early Childhood/Primary Settings or <br> Models of Early Childhood Education Programs | 3 |  |  |  |  |  |  |
| CHD | 205 | Guiding the Behavior of Young Children | 3 |  |  |  |  |  |
| HLT | 135 | Child Health \& Nutrition | 3 |  |  |  |  |  |
|  |  | General Elective | 3 |  |  |  |  |  |
| Total Minimum Credits for Certificate | 24 |  |  |  |  |  |  |  |

For Further Information Contact: Sue Ella Boatright-Wells, Dean - sboatright@mecc.edu - 276.523.7464

## CLINICAL RESEARCH COORDINATOR

Career Studies (221-152-08)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Course \# | Course Title | Credit | Progress |  |
| HIM | 130 | Health Information Systems | 3 |  |
| HIM | 150 | Health Records Management | 3 |  |
| HIM | 215 | Health Data Classification | 5 |  |
| HIM | 220 | Health Statistics | 2 |  |
| HIM | 253 | Health Records Coding | 4 |  |
| Total Minimum Credits for Certificate | 17 |  |  |  |

For Further Information Contact: Sabrina Ward - sward@mecc.edu - 276.523 .2400 ext. 224
Jane Jones - jjones@mecc.edu - 276.523.2400 ext. 249
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313
Note: The Clinical Research Coordinator Career Studies Certificate is designed for those who have existing training and/or experience in a health care field and/or medical coding. Please see an advisor for details.

COMPUTER SOFTWARE SPECIALIST - MOBILE APPLICATION DEVELOPMENT
Career Studies (221-299-00)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cour |  | Course Title | Credit | Progress |
| ITD | 110 | Web Page Design I | 3 |  |
| ITP | 193 | Studies in PHP/MYSQL | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ITP | 100 | Software Design | 3 |  |
| ITP | 120 | Java Programming I | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| ITD | 210 | Web Page Design II | 3 |  |
| ITP | 220 | Java Programming II | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| ITP | 140 | Client Side Scripting | 3 |  |
| ITP | 214 | Windows Mobile Development | 3 |  |
| Total Minimum Credits for Certificate |  |  | 24 |  |

[^8]
## CONSTRUCTION

Career Studies (221-989-10)
This program is not offered continuously and admission is by permission only.

| FIRST YEAR |  |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 103 | Applied Technical Mathematics I | 3 |  |  |  |  |  |  |
| MTH | 100 | Introduction to Information Systems | 3 |  |  |  |  |  |  |
| ITE | 100 or 1111 | Basic Occupational English or English Composition | 3 |  |  |  |  |  |  |
| ENG | 105 | Shop Practices \& Procedures | 2 |  |  |  |  |  |  |
| BLD | 110 | Introduction to Construction | 3 |  |  |  |  |  |  |
| BLD | 195 | Topics- Communication and Employability | 1 |  |  |  |  |  |  |
| BLD | 100 | College Success Skills | 1 |  |  |  |  |  |  |
| SDV | 195 | Topics in Construction | 3 |  |  |  |  |  |  |
| BLD | 295 | Topics in Construction | 3 |  |  |  |  |  |  |
| BLD | 197 | Cooperative Education | 3 |  |  |  |  |  |  |
| BLD | Total Minimum Credits for Certificate | $\mathbf{2 5}$ |  |  |  |  |  |  |  |

For Further Information Contact: Jerry Ramey - jramey@mecc.edu - 276.523.2400 ext. 326
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## CORRECTIONS MANAGEMENT \& SUPERVISION

Career Studies (221-462-88)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Course \# | Course Title | Credit | Progress |  |
| ADJ | 133 | Ethics and the Criminal Justice Professional | 3 |  |
| ADJ | 198 | Seminar and Project in Corrections | 4 |  |
| ADJ | 241 | Correctional law | 3 |  |
| ADJ | 245 | Management of Correctional Facilities | 3 |  |
| ADJ | 246 | Correctional Counseling | 3 |  |
| Total Minimum Credits for Certificate | 16 |  |  |  |

For Further Information Contact:
Robert England - rengland@mecc.edu - 276.523.2400 ext. 327
Cindy Ringley - cringley@mecc.edu - 276.523.2400 ext. 263
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## ELECTRICITY

Career Studies (221-941-01)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| ELE | 131 | National Electric Code I | 3 |  |
| BLD | 110 | Introduction to Construction | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ELE | 156 | Electrical Control Systems I | 3 |  |
| ELE | 110 | Home Electric Power | 3 |  |
|  |  | Technical Elective ${ }^{1}$ | 3 |  |
| Total Minimum Credits for Certificate |  |  | 19 |  |

[^9]For Further Information Contact: Jerry Ramey - jramey@mecc.edu - 276.523 .2400 ext. 326
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

EMERGENCY MEDICAL TECHNICIAN - BASIC
Career Studies (221-146-01)

| FIRST YEAR |  |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 111 | EMT- Basic | 7 |  |  |  |  |  |  |
| EMS | 120 | EMT - Clinical | 1 |  |  |  |  |  |  |
| EMS | 10 | 1 |  |  |  |  |  |  |  |
| SDV or HLT | 100 or <br> 105 | College Success Skills or CPR | 9 |  |  |  |  |  |  |
| Total Minimum Credits for Certificate |  |  |  |  |  |  |  |  |  |

## Program Goals

At the completion of the program the graduate will be able to demonstrate technical proficiency in all skills necessary to fulfill the role of an entry-level Emergency Medical Technician. The graduate of the program will demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his/her role as an entry-level Emergency Medical Technician. The student will demonstrate personal behaviors consistent with professional and employer expectations for the entry-level Emergency Medical Technician. All certification testing series must be completed within twelve (12) months from the date of the primary certification test attempt (e.g. first test date). Failure to complete this process within this twelve (12) month period will require the Candidate to repeat an entire initial training program before any additional testing may be attempted at this certification level.

For Further Information Contact:
Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## EMERGENCY MEDICAL TECHNICIAN - INTERMEDIATE

Career Studies (221-146-03)

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| EMS | 111 | EMT- Basic | 7 |  |
| EMS | 120 | EMT - Clinical | 1 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR FALL |  |  |  |  |
| EMS | 151 | Introduction to Advanced Life Support | 4 |  |
| EMS | 152 | Advanced Medical Care | 2 |  |
| EMS | 153 | Basic ECG Recognition | 2 |  |
| EMS | 170 | ALS Internship | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| EMS | 154 | ALS-Cardiac Care | 2 |  |
| EMS | 157 | ALS-Trauma Care | 3 |  |
| EMS | 159 | EMS Special Populations | 3 |  |
| EMS | 172 | ALS Clinical Internship | 1 |  |
| EMS | 173 | ALS Field Internship II | 1 |  |
| Total Minimum Credits for Certificate |  |  | 28 |  |

## Program Goals

At the completion of the program the graduate will be able to demonstrate technical proficiency in all skills necessary to fulfill the role of an entry-level EMT-Intermediate. The graduate of the program will demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry- level EMT-Intermediate. The student will demonstrate personal behaviors consistent with professional and employer expectations for the entry-level EMT-Intermediate.

All certification testing series must be completed within twelve (12) months from the date of the primary certification test attempt (e.g. first test date). Failure to complete this process within this twelve (12) month period will require the Candidate to repeat an entire initial basic training program or applicable bridge course before any additional testing may be attempted at this certification level.

## Accreditation

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. The paramedic program is also nationally accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

## Occupational Objectives

Occupational opportunities for EMT-Intermediates include employment by fire and rescue service providers industry, ambulance and transportation services, as well as service in volunteer agencies.

## Admission Requirements

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.


## 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).
- Have transcripts of previous college courses 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 , or score lower than the cut score on the reading exam will be considered.

## 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.

## 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 (EMS 213) 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 suitability 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.

## 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, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant.

For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523 .2400 ext. 356 Bill Akers, Program Director of the Southwest Virginia Paramedic Program at SWCC Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## EMERGENCY MEDICAL TECHNICIAN - PARAMEDIC

Career Studies (221-146-05)

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| EMS | 213 | ALS Skills Development | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |
| BIO | 145 | Human Anatomy \& Physiology ${ }^{1}$ | 4 |  |
| FIRST YEAR FALL |  |  |  |  |
| EMS | 201 | EMS Professional Development | 3 |  |
| EMS | 205 | Advanced Pathophysiology | 4 |  |
| EMS | 207 | Advanced Patient Assessment | 3 |  |
| EMS | 242 | ALS Clinical Internship III | 1 |  |
| EMS | 243 | ALS Field Internship III | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| EMS | 209 | Adv. Pharmacology | 4 |  |
| EMS | 211 | Operations | 2 |  |
| EMS | 244 | ALS Clinical Internship IV | 1 |  |
| EMS | 245 | ALS Field Internship IV |  |  |
| Total Minimum Credits for Certificate |  |  | 27 |  |

${ }^{1}$ BIO 141/ 231 and BIO 142/232 may be substitute or BIO 145 *Admission requirements for this career studies certificate include: (1) meeting eligibility requirements as stipulate by the Virginia Office of Medical Services; (2) bring currently certifies as an EMT-Intermediate; and (3) having a minimum of three years' experience at the EMT-Intermediate level.

## Program Goals

At the completion of the program the graduate will be able to demonstrate technical proficiency in all skills necessary to fulfill the role of an entry-level EMT-Paramedic. The graduate of the program will demonstrate the ability to comprehend, apply, and evaluate the clinical information relative to his role as an entry- level EMT-Paramedic. The student will demonstrate personal behaviors consistent with professional and employer expectations for the entry-level EMT-Paramedic.

All certification testing series must be completed within twelve (12) months from the date of the primary certification test attempt (e.g. first test date). Failure to complete this process within this twelve (12) month period will require the Candidate to repeat an entire initial basic training program or applicable bridge course before any additional testing may be attempted at this certification level.

Accreditation
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. The paramedic program is also nationally accredited by the Committee on Accreditation of Allied Health Educational Programs (CAAHEP).

## Occupational Objectives

Occupational opportunities for EMT-Paramedics include employment by fire and rescue service providers industry, ambulance and transportation services, as well as service in volunteer agencies.

## Admission Requirements

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-Intermediate 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.
- Completion of an accepted anatomy and physiology course.
- Completion of all required developmental coursework.
- Completion of a minimum of three (3) years' experience as an EMT-I.


## 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).
- Have transcripts of previous college courses 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 , or score lower than the cut score on the reading exam will be considered.

## 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.

## 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 (EMS 213) 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 suitability 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.

## 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, Rubella (MMR) and chicken pox exposure or inoculations; documentation of Hepatitis B inoculation; Tuberculosis testing; and overall general health of the applicant.

For Further Information Contact: Kim Dorton, Health Science Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356 Bill Akers, Program Director of the Southwest Virginia Paramedic Program at SWCC Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431


ENERGY TECHNOLOGY - ELECTRICAL EMPHASIS
Career Studies (221-820-05)

| FIRST YEAR |  |  |  | Course Title |
| :--- | :--- | :--- | :---: | :---: |
| Course \# | Credit | Progress |  |  |
| MTH | 103 | Applied Technical Mathematics I | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| AIR | 281 | Energy Management I | 3 |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |
| ELE | 156 | Electrical Control Systems | 3 |  |
| ELE | 239 | Programmable Controllers | 3 |  |
| ENE | 110 | Solar Power- Photovoltaic 1 | 4 |  |
| ELE | 131 | National Electrical Code I | 3 |  |
| Total Minimum Credits for Certificate | 24 |  |  |  |

${ }^{1}$ Prerequisite ELE 140 or equivalent
For Further Information Contact: $\quad$ Roger Greene - rgreene@mecc.edu - 276.523.2400 ext. 262
Bryce Shular - bshular@mecc.edu -276.523.2400 ext. 350
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## ENERGY TECHNOLOGY - HVAC EMPHASIS

Career Studies (221-820-06)

| FIRST YEAR |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |  |
| MTH | 103 | Applied Technical Mathemaics | 3 |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |
| AIR | 205 | Hydronics and Zoning | 4 |  |  |
| AIR | 281 | Energy Management I | 3 |  |  |
| AIR | 282 | Energy Management II | 2 |  |  |
| ELE | 140 | Basic Electricity \& Machinery | 4 |  |  |
| ENE | 105 | Solar Thermal Active and Passive Technology | 4 |  |  |
| ENE | 230 | Geothermal Applications ${ }^{1}$ | 4 |  |  |
| Total Minimum Credits for Certificate | 25 |  |  |  |  |

${ }^{1}$ Prerequisite ELE 140 or equivalent
For Further Information Contact:
Bryce Shular - bshular@mecc.edu -276.523.2400 ext. 350
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## FUNERAL SERVICE ASSISTANT

Career Studies (221-155-02)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ACC | 211 | Principles of Accounting \| | 3 |  |
| HIM | 111 | Medical Terminology I | 3 |  |
| ENG | 111 | College Composition I | 3 |  |
| FNS | 121 | Anatomy for Funeral Service ${ }^{1}$ | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| CHM | 110 | General Chemistry I | 3 |  |
| REG | 231 | Religions of the World ${ }^{2}$ | 3 |  |
| PSY | 116 | Psychology of Death and Dying | 3 |  |
| SOC | 200 | Principles of Sociology | 3 |  |
| CST | 100 | Principles of Public Speaking ${ }^{3}$ | 3 |  |
| Total Minimum Credits for Certificate |  |  | 28 |  |

${ }^{1}$ BIO 141,231 , NAS 161 , or 171 may be substituted for FNS $121 ;{ }^{2}$ REL 230 or 232 may be substituted for REL $231 ;{ }^{3}$ CST 105 may be substituted for CST 100.
In addition to the above courses, JTCC's degree curriculum requires an ITE elective. Pre-funeral service students are advised to take ITE 119 to satisfy this requirements.

For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## GEOGRAPHIC INFORMATION SYSTEMS

Career Studies (221-719-71)

| FIRST YEAR |  |  |  | Course Title |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | 200 | Geographical Information Systems I | Credit | Progress |
| GIS | 201 | Geographical Information Systems II | 4 |  |
| GIS | 201 | 4 |  |  |
| GIS | 205 | GIS 3- Dimensional Analysis | 4 |  |
| GIS | 210 | Understanding Geographical Data | 4 |  |
| Total Minimum Credits for Certificate | 16 |  |  |  |

For Further Information Contact: Jake Gilly - jgilly@mecc.edu - 276.523.2400 ext. 280 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## HEALTH SCIENCES

## Career Studies (221-190-01)

This program is for individuals interested in a health care career and will enable students to acquire an academic foundation to continue their education in one of many health programs. Students are strongly encouraged to consult their academic advisor for specific program requirements and preferred course substitutions.

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| B10 | 141 | Human Anatomy \& Physiology $1^{1}$ | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| PSY | 231 | Life Span Human Development $1^{2}$ | 3 |  |
| SDV | 100 | College Success Skills ${ }^{3}$ | 1 |  |
|  |  | Elective ${ }^{4}$ | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy \& Physiology II | 4 |  |
| PSY | 232 | Life Span Human Development \||5 | 3 |  |
|  |  | Humanities Elective | 3 |  |
|  |  | Elective ${ }^{4}$ | 3 |  |
| Total | m Cre | or Certificate | 27 |  |

${ }^{1}$ Students preparing for admission to PRACTICAL NURSING or RESPIRATORY THERAPY, please see your advisor before enrolling in an anatomy course. ${ }^{2}$ Please see your advisor. Other social science electives may be substituted in some programs. ${ }^{3}$ SDV 104,108 , or 109 may be substituted for SDV $100 .{ }^{4}$ Please see your advisor for assistance in selecting the most beneficial electives for the health program you are preparing to enter. ${ }^{5}$ Please see your advisor for a list of acceptable humanities electives for the health program you are preparing to enter.

For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## HELP DESK SUPPORT

Career Studies (221-299-09)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ITE | 140 | Spreadsheet Software | 3 |  |
| ITN | 110 | Client Operating System | 3 |  |
| ITN | $\begin{array}{\|l\|} \hline 115 \text { or } \\ 171 \end{array}$ | Windows Server or Unix \| | 3 |  |
| ITE | 150 | Desktop Database Software | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ITN | 101 | Introduction to Network Concepts | 3 |  |
| BUS | 106 | Security Awareness for Managers | 3 |  |
| ITN | 107 | Personal Computer Hardware \& Troubleshooting | 3 |  |
| ITE or ITN | $\begin{aligned} & 182 \text { or } \\ & 195 \end{aligned}$ | User Supporthelp Desk Principles or MCDST Certification Prep | 3 |  |
| CST | 100 | Principles of Public Speaking4 | 3 |  |
| Total Minimum Credits for Certificate |  |  | 24 |  |

For Further Information Contact: Fred Coeburn - fcoeburn@mecc.edu - 276.523 .2400 ext. 285
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313

INFORMATION TECHNOLOGY READINESS
Career Studies (221-299-08)

| FIRST YEAR |  |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 101 | Keyboarding I | 3 |  |  |  |  |  |  |
| AST | 132 | Word Processing I | 1 |  |  |  |  |  |  |
| AST | 133 | Word Processing II | 1 |  |  |  |  |  |  |
| AST | 100 | Introduction to Information Systems | 3 |  |  |  |  |  |  |
| ITE | 100 | College Success Skills | 1 |  |  |  |  |  |  |
| SDV | 107 | Career Education | 3 |  |  |  |  |  |  |
| SDV | 100 | Basic Occupational Communication | 3 |  |  |  |  |  |  |
| ENG | 121 | Business Mathematics I | 3 |  |  |  |  |  |  |
| BUS | 110 | Web Page Design I | 3 |  |  |  |  |  |  |
| ITD | ITE | 298 | Seminar \& Project | 3 |  |  |  |  |  |
| Total Minimum Credits for Certificate | 24 |  |  |  |  |  |  |  |  |

For Further Information Contact:
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## LAW ENFORCEMENT MANAGEMENT \& SUPERVISION

Career Studies (221-463-89)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |
| ADJ | 111 | Law Enforcement Org. \& Administration I | 3 |  |
| ADJ | 112 | Law Enforcement Org. \& Administration II | 3 |  |
| ADJ | 133 | Ethics and the Criminal Justice Professional | 3 |  |
| ADJ | 198 | Seminar and Project in Law Enforcement | 4 |  |
| ADJ | 227 | Constitutional Law for Justice Personnel | 3 |  |
| Total Minimum Credits for Certificate | 16 |  |  |  |

For Further Information Contact:
Robert England - rengland@mecc.edu - 276.523.2400 ext. 327
Cindy Ringley - cringley@mecc.edu - 276.523.2400 ext. 264
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## MACHINERY MAINTENANCE

Career Studies (221-985-52)

| FIRST YEAR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| ELE | 156 | Electrical Control Systems | 3 |  |
| ELE | 239 | Programmable Controllers | 3 |  |
| MEC | 205 | Piping and Auxiliary Systems | 3 |  |
| IND | 137 | Team Concepts and Problem Solving | 3 |  |
| IND | 125 | Installation and Preventative Maintenance | 3 |  |
| MEC | 266 | Fluid Mechanics | 3 |  |
| WEL | 100 | Fundamentals of Welding | 3 |  |
| Total Minimum Credits for Certificate |  |  | 21 |  |

[^10]MEDICAL RECORDS TECHNICIAN
Career Studies (221-285-73)

| FIRST YEAR FALL |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| Course \# | Course Title | Credit | Progress |  |  |  |  |
| HIM | 113 | Medical Terminology \& Disease Processes I | 3 |  |  |  |  |
| HIM | 130 | Healthcare Information Systems | 3 |  |  |  |  |
| HIM | 150 | Health Records Management | 3 |  |  |  |  |
| SDV | 100 | College Success Skills | 1 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| FIRST YEAR SPRING | AST or HIM Elective | 3 |  |  |  |  |  |
| HIM | 226 | Legal Aspects of Health Record Documentation | 2 |  |  |  |  |
| HIM | 230 | Information Systems \& Technology in Healthcare | 3 |  |  |  |  |
| HIM | 233 | Electronic Health Records Management | 3 |  |  |  |  |
|  |  | AST or HIM Electives | 6 |  |  |  |  |
| Total Minimum Credits for Certificate | 27 |  |  |  |  |  |  |

## MEDICAL RECEPTIONIST \& TRANSCRIPTIONIST

Career Studies (221-286-01)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| AST | 107 | Editing/Proofreading Skills | 3 |  |
| AST | 215 | Medical Keyboarding | 3 |  |
| HIM | 111 | Medical Terminology I |  |  |
| HIM | 130 | Healthcare Information Systems | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| AST | 271 | Medical Office Procedures | 3 |  |
| HIM | 112 | Medical Terminology II | 3 |  |
| HIM | 230 | Information Systems \& Technology in Health Care | 3 |  |
| AST | 240 | Machine Transcripion | 3 |  |
| AST | 108 | Telephone Techniques | 1 |  |
| MKT | 170 | Customer Service | 1 |  |
| Total Minimum Credits for Certificate |  |  | 27 |  |

For Further Information Contact:
Sabrina Ward - sward@mecc.edu - 276.523.2400 ext. 224
Jane Jones - jjones@mecc.edu - 276.523.2400 ext. 249
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313

## NURSING ASSISTANT (WITH ENHANCED SKILLS)

Career Studies (221-157-06)

| FIRS | FALL |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cours |  | Course Title | Credit | Progress |
| SDV | 100 | College Success Skills | 1 |  |
| HLT | 105 | CPR1 | 1 |  |
| HCT | 101 | Health Care Technician I | 3 |  |
| HCT | 102 | Health Care Technician II | 4 |  |
| HCT | 115 | Medication Administration Training | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| HLT | 145 | Ethics for Healthcare Personnel | 2 |  |
| ITE | 119 | Information Literacy ${ }^{2}$ | 3 |  |
| EMS | 153 | Basic ECG Recognition | 2 |  |
| HLT | 195 | Topics in EKG Technician | 2 |  |
| Total Minimum Credits for Certificate |  |  | 21 |  |

${ }^{1}$ HLT 119, HLT 100, EMS 100, EMS 111 or EMS 101 may be substituted for HLT 105 . ${ }^{2}$ ITE 100, ITE 115, or HIM 130 may be substituted for ITE 119

For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## OLD TIME MUSIC

Career Studies (221-529-30)

| FIRST YEAR |  |  |  | Course Title | Credit |
| :--- | :--- | :--- | :---: | :--- | :--- |
| Course $\#$ | Progress |  |  |  |  |
| SDV | 107 | Career Education | 1 |  |  |
| HUM | 153 | Introduction to Appalachian Studies | 3 |  |  |
| MUS | 133 | Recording System Services I | 3 |  |  |
| MUS | 290 | Internship in Recording | 3 |  |  |
| MUS | 150 | Old Time String Band | 3 |  |  |
| MUS | 195 | Festival Management | 3 |  |  |
|  |  | Two 3-Credit Instrument Classes 1 | 6 |  |  |
|  |  | Electives ${ }^{1}$ | 6 |  |  |
| Total Minimum Credits for Certificate |  | 28 |  |  |  |

[^11]For Further Information Contact: Sue Ella Boatright-Wells, Dean - sboatright@mecc.edu - 276.523.7464

## PHARMACY TECHNICIAN

## Career Studies (221-190-07)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| HIM | 111 | Medical Terminology I | 3 |  |
| HLT | 145 | Ethics for Healthcare Personnel | 2 |  |
| HLT | 261 | Basic Pharmacy I | 3 |  |
| HLT | 262 | Basic Pharmacy II | 3 |  |
| SDV | 100 | College Success Skills I | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| HIM | 112 | Medical Terminology II | 3 |  |
| HLT | 105 | CPR ${ }^{1}$ | 1 |  |
| HLT | 121 | Introduction to Drug Use and Abuse | 3 |  |
| ITE | 119 | Information Literacy ${ }^{2}$ | 3 |  |
| MTH | 126 | Math for Allied Health | 2 |  |
| Total Minimum Credits for Certificate |  |  | 24 |  |

${ }^{1}$ HLT 119, HLT 100, EMS 100, EMS 111, or EMS 101 may be substituted for HLT 105. ${ }^{2}$ ITE 100, 115 , or HIM 130 may be substituted for ITE 119
For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523 .2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## PHLEBOTOMY

Career Studies (221-151-02)

| FIRST | FALL |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| HIM | 111 | Medical Terminology $1^{1}$ | 3 |  |
| HLT | 100 | First Aid \& CPR ${ }^{2}$ | 3 |  |
| HLT | 145 | Ethic/Healthcare Personnel | 2 |  |
| MDL | 105 | Phlebotomy ${ }^{1}$ | 3 |  |
| SDV | 100 | College Success Skills 1 | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ENG | 111 | College Composition ${ }^{3}$ | 3 |  |
| HIM | 112 | Medical Terminology II | 3 |  |
| ITE | 119 | Information Literacy ${ }^{4}$ | 3 |  |
| MDL | 106 | Clinical Phlebotomy ${ }^{1}$ | 4 |  |
| Total Minimum Credits for Certificate |  |  | 25 |  |

${ }^{1}$ It is recommended that HIM 111 and 112 and HLT 145 be completed prior to enrollment in MDL 105 . However, enrollment in MDL 105 may be allowed if the student is concurrently enrolled in HIM 111 and HLT 145; and enrollment in MDL 106 may be allowed if both MDL 105, HIM 111 and HLT 145 have been successfully completed, and the student is concurrently enrolled in HIM 112. This requirement may be waived for students who hold a current medical certification such as R.N., L.P.N., E.M.T., or R.R.T. Check with a program advisor for clarification. ${ }^{2}$ HLT 119 or EMS 101 may be substituted for HLT $100 .{ }^{3}$ ENG 115 may be substituted for ENG 111 . ${ }^{4}$ ITE 100,115 , or HIM 130 may be substituted for ITE 119 .

## Program Requirements

Students are admitted to the phlebotomy program utilizing a selective admissions process. The deadline to apply for admission to the summer cohort is April 15th, the deadline to apply for admission to the fall cohort is July 15 th. 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 varicella vaccinations OR proof of immunity by titer.
- Proof \& record of DTP (diphtheria, tetanus, pertussis) vaccinations.
- Copy of BLS for Healthcare Provider (CPR) certification card, back and front.
- Passing of criminal and sexual background checks and drug screen.

For Further Information Contact: Kim Dorton, Health Sciences Coordinator - kdorton@mecc.edu - 276.523 .2400 ext. 356 Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## REAL ESTATE

Career Studies (221-273-01)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| ITE | 119 | Information Literacy | 3 |  |
| MKT | 100 | Principles of Marketing | 3 |  |
| GIS | 200 | Geographical Information Systems | 4 |  |
| REA | 217 | Real Estate Finance | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| REA | 100 | Principles of Real Estate ${ }^{1}$ | 4 |  |
| LGL | 115 | Real Estate Law | 3 |  |
| MKT | 284 | Social Media Marketing | 3 |  |
| AST | 150 | Desktop Publishing | 1 |  |
| AST | 155 | Introduction to Desktop Information Management | 1 |  |
| AST | 160 | Learning the Internet for Business | 1 |  |
| Total Minimum Credits for Certificate |  |  | 26 |  |

${ }^{1}$ This course is required for the licensing examination for the Real Estate Sales License-
For Further Information Contact: Sabrina Ward, sward@mecc.edu, 276.523.2400 ext. 224
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313

## SMALL BUSINESS MANAGEMENT

Career Studies (221-212-24)

| FIRS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cours |  | Course Title | Credit | Progress |
| ACC | 115 | Applied Accounting | 3 |  |
| BUS | 205 | Human Resource Management | 3 |  |
| FIN | 107 | Personal Finance | 3 |  |
| MKT | 100 | Principles of Marketing | 3 |  |
| MKT | 170 | Customer Service | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| ACC | 124 | Payroll Accounting | 3 |  |
| ACC | 134 | Small Business Taxes | 3 |  |
| ACC | 215 | Computerized Accounting | 3 |  |
| BUS | 165 | Small Business Management | 3 |  |
| MKT | 284 | Social Media Marketing | 3 |  |
| Total Minimum Credits for Certificate |  |  | 28 |  |

## SOFTWARE DEVELOPMENT I

Career Studies (221-299-01)

| FIRST YEAR |  |  |  |  |  |  | Course Title | Credit | Progress |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | 110 | Web Page Design I | 3 |  |  |  |  |  |  |
| ITD | 171 | Unix I | 3 |  |  |  |  |  |  |
| ITN | 100 | Software Design | 3 |  |  |  |  |  |  |
| ITP | 120 | Java Programming I | 3 |  |  |  |  |  |  |
| ITP | 132 | C++ Programming I | 3 |  |  |  |  |  |  |
| ITP | Studies in PHP/MYSQL | 3 |  |  |  |  |  |  |  |
| ITP | 193 | Total Minimum Credits for Certificate | 18 |  |  |  |  |  |  |

For Further Information Contact: Terri Lane - tlane@mecc.edu - 276.523.2400 ext. 240
Nasser Maksoud - nmaksoud@mecc.edu - 276.523.2400 ext. 259
Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313

## SOFTWARE DEVELOPMENT II

Career Studies (221-299-02)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |
| ITP | 140 | Client Side Scripting | 3 |  |
| ITP | 214 | Windows Mobile Development | 3 |  |
| ITP | 220 | Java Programming II | 3 |  |
| ITP | 232 | C++Programming II | 3 |  |
| ITP | 251 | Systems Analysis \& Design | 3 |  |
| ITP | 298 | Project Integration | 3 |  |
| Total Minimum Credits for Certificate |  |  |  |  |

Terri Lane - tlane@mecc.edu - 276.523.2400 ext. 240
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Fran Doyle, Assistant Dean - fdoyle@mecc.edu - 276.523.2400 ext. 313

## WASTEWATER PLANT OPERATOR

Career Studies (221-828-68)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Course \# | Course Title | Credit | Progress |  |
| ENV | 108 | Environmental Microbiology | 3 |  |
| ENV | 110 | Introduction to Water/ Wastewater Technology | 3 |  |
| ENV | 149 | Wastewater Treatment Plant Operation | 3 |  |
| ENV | 211 | Sanitary Biology \& Chemistry | 3 |  |
| CIV | 240 | Fluid Mechanical Hydraulics | 3 |  |
| CIV | 246 | Water Resources Technology | 3 |  |
| ENV | 227 | Environmental Law | 3 |  |
| ENV | 290 | Coordinated Internship | 4 |  |
| Total Minimum Credits for Certificate | 25 |  |  |  |

[^12][^13]
## WATER PLANT OPERATOR

Career Studies (221-828-67)

| FIRST YEAR |  |  |  |  |
| :--- | :--- | :--- | :---: | :--- |
| Course \# | Course Title | Credit | Progress |  |
| ENV | 108 | Environnental Microbiology | 3 |  |
| ENV | 110 | Introduction to Water/ Wastewater Technology | 3 |  |
| ENV | 115 | Water Purifcation | 3 |  |
| ENV | 211 | Sanitary Biology \& Chemistry | 3 |  |
| CIV | 240 | Fluid Mechanical Hydraulics | 3 |  |
| CIV | 246 | Water Resources Technology | 3 |  |
| ENV | 227 | Environmenta Law | 3 |  |
| ENV | 290 | Coordinated Internship | 4 |  |
| Total Minimum Credits for Certificate | 25 |  |  |  |

Note: This program is intended for apprentices in water plants. See faculty advisor for additional information.
For Further Information Contact: Dr. Chuks Ogbonnaya - cogbonnaya@mecc.edu - 276.523.2400 ext. 276
Rosa Cooke - rcooke@mecc.edu - 276.523.2400 ext. 364
Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

## WELDING OPERATOR

Career Studies (221-995-01)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cours |  | Course Title | Credit | Progress |
| WEL | 110 | Welding Processes | 3 |  |
| WEL | 115 | Arc and Gas Welding | 3 |  |
| WEL | 100 | Fundamentals of Welding | 3 |  |
| WEL | 123 | Arc Welding I | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
| WEL | 124 | Arc Welding II |  |  |
| WEL | 141 | Welder Qualification Tests | 3 |  |
| WEL | 130 | Inert Gas Welding |  |  |
| WEL | 198 | Seminar and Project | 3 |  |
| Total Minimum Credits for Certificate |  |  | 24 |  |

For Further Information Contact:

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## Center for Workforce Development

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 Center for Workforce Development 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

The Center for Workforce Development 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 Commonwealth of Virginia Career Readiness Certificate and the National Career Readiness Certificate.
- WorkKeys® Foundational and Personal Skills assessments provide reliable, relevant information about workplace skill levels:
o Foundational Skills assessments measure cognitive abilities such as applied mathematics, reading for information, and locating information.
o 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 the Center for Workforce Development for scheduling of the following classes:

## 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.

## 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.

## 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.
classes which are project-oriented and include lessons, quizzes, hands-on assignments, discussion areas, supplementary links, and more. A complete listing of classes can be found at http://www.ed2go.com/mecc.

## 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.

## Heavy Equipment

Graduates of this five week training program will have the knowledge and skills to work as operators of heavy equipment such as dozers, end loaders, excavators, and back-hoes. Must be 18 years of age, in sound physical health and meet the general admission requirements.

## 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 Continuing Education
- Surface and Underground Mine Foreman Initial Certification
- Diesel Initial Certification
- VA DMME Advanced First Aid
- First Responder - Certification \& Recertification
- EMT - Certification \& Recertification
- CPR - Cardiopulmonary Resuscitation
- First Aid Certification \& Recertification
- DMME Reciprocity Advanced First-Aid
- Supervisors Training
- Kentucky MET - Initial \& Recertification
- CDL Training and Heavy Equipment Operator
- Electrical Initial Certification


## 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.

## 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 Pharmacy Technician Continuing Education Courses. 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 5.0 hour ( 0.5 CEU ) of continuing education credit.

## 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.

## State and Regional Cooperative Programs

MECC offers these programs in cooperation with our partnering community colleges.

Associate of Applied Science Programs

- Medical Laboratory Technology (WCC)
- Occupational Therapy Assistant (SWCC)
- Physical Therapy Assistant (WCC)
- Radiography Technology (SWCC)

Career Studies Certificate Programs

- Computed Tomography (SWCC)


## Associate of Applied Science Degree Medical Laboratory Technology (WCC)

## Program Description

Graduates of the Medical Laboratory Technology program are able to perform and evaluate a wide variety of procedures ranging from blood collection to the use of intricate precision instruments. After successful completion of the program, graduates are eligible to take a national certifying examination for registration as a Medical Laboratory Technician. This program is being provided through an innovative, cooperative arrangement with Wytheville 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 local healthcare facilities. The AAS degree will be awarded by Wytheville Community College. WCC's program is fully approved by the State Council of Higher Education and the National Accrediting Agency of Clinical Laboratory Sciences (NAACLS).

## 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 Requirements

Upon admission to the Medical Laboratory Technician program, the following are necessary:

- The student must have a complete medical examination which must include a tuberculin skin test (not more than one year old), a profile of medical condition, designated immunizations, and documentation of HBV status. A chest x-ray is required only if the tuberculin test is positive.
- A minimum grade of "C" must be maintained in each Medical Laboratory

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| CHM | 111 | College Chemistry | 4 |  |
| MDL | 101 | Intro to Med Lab Techniques | 3 |  |
| MDL | 127 | Hematology | 3 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy and Physiology \|| | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| MDL | 126 | Clinical Immunohematology/ \|mmunology | | 4 |  |
| MDL | 130 | Basic Clinical Microbiology | 3 |  |
| MDL | 261 | Clinical Chemistry \& Instrumentation \| | 4 |  |
| SECOND YEAR SUMMER |  |  |  |  |
|  |  | Humanities/Fine Arts Elective | 3 |  |
|  |  | Social/Behavioral Science Elective | 3 |  |
| MDL | 199 | Coordinated Practice in the Clinical Lab | 2 |  |
| B10 | 150 | Introduction to Microbiology | 4 |  |
| SECOND YEAR FALL |  |  |  |  |
| MDL | 190 | Coordinated Practice | 2 |  |
| MDL | 225 | Clinical Hematology II | 3 |  |
| MDL | 240 | Clinical Microscopy II | 2 |  |
| MDL | 252 | Clinical Microbiology II | 3 |  |
| MDL | 262 | Clinical Chemistry \& \|nstrumentation || | 4 |  |
| SECOND YEAR SPRING |  |  |  |  |
| MDL | 227 | Clinical Immunohematologyl Immun \|| | 3 |  |
| MDL | 263 | Clinical Chemistry \& Instrumentation III | 3 |  |
| MDL | 275 | Clinical Hematology III | 3 |  |
| MDL | 279 | Clinical Microbiology III | 2 |  |
| MDL | 290 | Coordinated Practice | 2 |  |
| Total Minimum Credits for Degree |  |  | 72 |  |

course. A student receiving a final grade lower than "C" in any course in the medical laboratory sequence will be ineligible to continue in the program. Contact the program head for readmission requirements.

- The student will be required to secure student professional liability insurance.
- Clinical experience will be provided in affiliated hospitals or laboratories. Each student will be responsible for transportation to and from the sites and must also secure the required uniforms and dress code requirements.


## Special Considerations

The medical laboratory technician 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 colleges. Additionally, to enter the program, the student must have a high school diploma or the equivalent. The student must have completed with a grade of "C" or better in
high school: one unit of Algebra, one unit of Chemistry, and one unit of Biology. The student must also be eligible to enroll in ENG 111 in their first Fall semester of admission to the program. Students may enroll in MECC's developmental coursework if they do not meet these requirements. Student presenting evidence of meeting these requirements will be admitted to the program by WCC biennially. MECC has been allocated ten admission slots. Because entry into this program is competitive, students must complete the application process with the Admissions Office at WCC by no later than February 15.

For Further Information Contact:
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276.523.2400 ext. 356

Jim Gibberson, Program Director Wytheville Community College

Tommy Clements, Dean
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276.523.2400 ext. 431

## Associate of Applied Science Degree Occupational Therapy Assistant (SWCC)

## Program Description

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.

## Employment Opportunities

Employment opportunities include positions in hospitals, rehabilitation centers, clinics, day care centers, long-term care facilities, schools, sheltered workshops, homebound programs and community agencies.

## Special Considerations

In addition to the general requirements for admission to the both SWCC and MECC, consideration for a position in this program requires a high school diploma or GED; the mathematics (Algebra I plus Algebra II and/ or Geometry), one unit of Biology with a laboratory, and one unit of Chemistry with a laboratory. Additional classes that are recommended include: Abnormal Psychology and

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course\# |  | Course Title | Credit | Progress |
| B10 | 141 | Human Anatomy \& Physiology I | 4 |  |
| ENG | 111 | College Composition | 3 |  |
| HLT | 143 | Medical Terminology ${ }^{3}$ | 3 |  |
| OCT | 100 | Introduction to OT | 3 |  |
| PSY | 230 | Development Psychology ${ }^{1}$ | 3 |  |
| SDV | $\begin{aligned} & 100,104 \\ & \text { or } 108 \end{aligned}$ | College Success Skills or Study Skills or College Survival Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| B10 | 142 | Human Anatomy \& Physiology II | 4 |  |
| OCT | 195 | Topics in OT for Physical Dysfunction | 2 |  |
| OCT | 201 | OT with Psychosocial Dysfunction | 3 |  |
| OCT | 205 | Therapeutic Media | 2 |  |
| NAS | 195 | Kinesiology | 1 |  |
| ITE | 119 | Information Literacy | 3 |  |
|  |  | Humanities/Fine Arts Elective ${ }^{2}$ | 3 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| OCT | 190 | Coordinated Practice in OT ILevel I Fieldwork | 1 |  |
| OCT | 207 | Therapeutic Skills | 3 |  |
| OCT | 220 | OT for the Adult | 2 |  |
| SECOND YEAR FALL |  |  |  |  |
| OCT | 190 | Coordinated Practice in OT II - Level I Fieldwork | 1 |  |
| OCT | 202 | OT with Physical Disabilities | 4 |  |
| OCT | 203 | OT with Developmental Disabilities | 4 |  |
| OCT | 208 | OT Service Management \& Delivery | 3 |  |
| OCT | 210 | Assistive Tech. in OT | 2 |  |
| SECOND YEAR SPRING |  |  |  |  |
| OCT | 290 | Coordinated Practice in OT IIILevel II Fieldwork | 6 |  |
| OCT | 290 | Coordinated Practice in OT IV - Level II Fieldwork | 6 |  |
| OCT | 298 | Seminar and Project in OTA | 1 |  |
| Total Minimum Credits for Degree |  |  | 68 |  |

${ }^{1}$ PSY 231-232, Lifespan Human Growth and Development I \& II (both necessary) may be substituted for PSY 230. ${ }^{2}$ Courses may be chosen from the Transfer Humanities Electives. ${ }^{3}$ HIM 111 may substitute for HLT 143.

Ethics for Health Care Personnel. Grades in these courses must reflect a minimum of "C." MTH 126 may substitute for the second math requirement. Eight (8) hours of observation in an occupational therapy setting should be documented by the OT personnel denoting and date (') and time(s).

All high school courses and/or college work must reflect an overall grade average of "C" (2.0 GPA) or higher. Satisfactory performance on the placement testing program is required. All pre-requisite courses, including any prescribed developmental studies courses, must be successfully completed before the January 15 application deadline. Students planning to transfer to senior institutions should inform their advisors and should consider coursework that can be used for transfer.

Because entry into this program is competitive, students must complete the application process with the Admissions Office at SWCC by January 15 . 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.

## 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.

## 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.

## Criminal Background Checks/Drug 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. Cost for criminal background checks and drug testing will be the responsibility of the student.

For Further Information Contact:
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Southwest Virginia Community College
Tommy Clements, Dean
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## Associate of Applied Science Degree <br> Physical Therapy Assistant (SWCC)

## Program Description

The two-year program is designed to prepare the student as a skilled, technical health care worker with the knowledge and skill to assist the physical therapist in meeting the physical therapy needs of the public. Upon successful completion of the program, students are eligible to sit for the Virginia State Licensing Examination leading to licensure as a Physical Therapist Assistant. The physical therapy assistant program is accredited by the Commission on the Accreditation in Physical Therapy Education of the American Physical Therapy Association. This program is being provided through an innovative, cooperative arrangement with Wytheville Community College. Students will register at MECC for their general education course requirements and register through WCC for their program courses. 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

Employment opportunities for the licensed Physical Therapist Assistant include positions in hospitals, nursing homes, home health care agencies, rehabilitation centers, school systems, and for private practices.

## Special Considerations

To enter the Associate Degree Physical Therapist Assistant program the student must be a high school graduate or the equivalent. High school courses must include one unit of biology and chemistry (lab courses) and one unit of algebra. Satisfactory placement test scores in English and math required. Students who lack any or all of these high school pre-requisites, or who do not score high enough on writing and reading placement tests to be eligible for ENG 111 or ENG 137, may satisfy the requirements by successfully completing the equivalent developmental courses. The student's high school record must reflect an

PROGRAM OF STUDY

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| BIO | 141 | Human Anatomy \& Physiology I | 4 |  |
| ENG | 111 | College Composition I | 3 |  |
| PSY | 230 | Development Psychology ${ }^{1}$ | 3 |  |
| PTH | 105 | Introduction to Physical Therapy | 3 |  |
| PTH | 110 | Medical Reporting | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| BIO | 142 | Human Anatomy \& Physiology II | 4 |  |
| PTH | 115 | Kinesiology for the Physical Therapy Assistant | 4 |  |
| PTH | 121 | Therapeutic Procedures I | 5 |  |
| PTH | 151 | Musculoskeletal Structure and Function | 5 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| PTH | 131 | Clinical Education I | 2 |  |
| PTH | 210 | Psychological Aspects of Therapy | 2 |  |
| PTH | 227 | Pathological Conditions | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| PTH | 122 | Therapeutic Procedures II | 5 |  |
| PTH | 225 | Rehabilitation Procedures | 5 |  |
| PTH | 226 | Therapeutic Exercise | 4 |  |
| SECOND YEAR SPRING |  |  |  |  |
| PTH | 245 | Professional Issues | 3 |  |
| PTH | 251 | Clinical Practicum I | 3 |  |
| PTH | 252 | Clinical Practicum II | 4 |  |
|  |  | Humanities/Fine Arts Elective ${ }^{2}$ | 3 |  |
| Total Minimum Credits for Degree |  |  | 68 |  |

IPSY 231-232, Lifespan Human Growth and Development I \& II (both necessary) may be substituted for PSY 230. ${ }^{2}$ Courses may be chosen from the Transfer Humanities Electives.
overall "C" average (2.0). A 2.0 cumulative grade point average (GPA) is also required on all college work completed. Because of limited clinical sites and laboratory space, there are a limited number of slots in the program; therefore, early application is desirable. Shadowing hours, HOBET test, and a program director interview are also required. Because entry into this program is competitive, students must complete the application process with the Admissions Office at WCC by no later than February 15th. Questions regarding the program application process should be directed to the Admissions and Records Office at WCC or to Kim Dorton at MECC. Detailed information related to the selective admissions process may be found at this link: http://www. wcc.vccs.edu/docs/selectivealliedhealthpack-et10-2012.pdf.

Upon admission, a complete health examination form will be required of all students admitted to the program. A student receiving a final grade lower than " C " in any course in the physical therapist assistant sequence or anatomy and physiology will be ineligible to continue in the physical therapist assistant courses. Selected learning experiences will be provided in a number of physical therapy settings located within the geographical area served by the college. Students are assigned to clinical agencies on a space available basis. Additional program costs such as physical examination, vaccinations, uniforms, insurance, background checks, supplies, and travel to clinical settings are the responsibility of the student.

## Clinical and Behavioral Requirements

Selected and supervised learning experiences are required by this program and will be ac-
complished 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.

NOTE: All PTA students must complete Level II Fieldwork within 18 months following completion of academic preparation.

NOTE: A felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

NOTE: Criminal Background Checks/Drug are required before attending clinicals.

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## Associate of Applied Science Degree <br> Radiography Technology (SWCC)

## Program Description

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. Wytheville Community College and Virginia Highlands Community College are also partners. 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 use of distance education technology will enable students to complete their coursework at MECC and at local clinical facilities, with limited travel to SWCC. The A.A.S. degree will be awarded by Southwest Virginia Community College.

## Accreditation

The program is fully accredited by the Joint Review Committee for Radiologic Technology Education (JRCERT) (20 North Wacker Drive, Suite 900, Chicago, IL, 60606-2901).

## Employment Opportunities

Employment opportunities exist for welltrained, registered radiological technologists in hospitals, clinics, education, industry, government agencies, and private offices.

## Program Goals

The radiography program goals include: develop and deliver appropriate patient care, develop the radiological skills to perform all routine imaging procedures in medical imaging departments, adopt

PROGRAM OF STUDY

| FIRST YEAR SUMMER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Course \# |  | Course Title | Credit | Progress |
| RAD | 105 | Introduction to Rad. Protection \& Patient Care | 3 |  |
| MTH | 126 | Math for Allied Health | 2 |  |
| SDV | 100 | College Success Skills | 1 |  |
| RAD | 195 | Ethics, Teamwork \& Professional Development | 3 |  |
| HLT | 143 | Medical Terminology ${ }^{1}$ | 3 |  |
| FIRST YEAR FALL |  |  |  |  |
| ENG | 111 | College Composition ${ }^{2}$ | 3 |  |
| B10 | 141 | Human Anatomy \& Physiology 1 | 4 |  |
| RAD | 110 | Imaging Equipment \& Protection | 3 |  |
| RAD | 121 | Radiographic Procedures I | 4 |  |
| PSY | 230 | Developmental Psychology ${ }^{3}$ | 3 |  |
| FIRST YEAR SPRING |  |  |  |  |
|  |  | Humanities/Fine Arts Elective ${ }^{4}$ | 3 |  |
| B10 | 141 | Human Anatomy \& Physiology II | 4 |  |
| RAD | 112 | Radiologic Science II | 4 |  |
| RAD | 221 | Radiologic Procedures II | 4 |  |
| SECOND YEAR SUMMER |  |  |  |  |
| RAD | 190 | $\begin{aligned} & \begin{array}{l} \text { Coordinated Internship } \\ \text { (Term II) } \end{array} \\ & \hline \end{aligned}$ | 3 |  |
| RAD | 205 | Rad. Protection \& Radiobiology (Term I) | 3 |  |
| SECOND YEAR FALL |  |  |  |  |
| RAD | 290 | Coordinated Intersship | 6 |  |
| RAD | 255 | Radiographic Equipment | 3 |  |
| SECOND YEAR SPRING |  |  |  |  |
| RAD | 290 | Coordinated Internship | 6 |  |
| RAD | 240 | Radiographic Pathology | 3 |  |
| THIRD YEAR SUMMER |  |  |  |  |
| RAD | 215 | Correlated Radiographic Theory | 2 |  |
| RAD | 290 | Coordinated Internship (Term I) | 2 |  |
| Total Minimum Credits for Degree |  |  | 72 |  |

${ }^{1}$ HIM 111 or HIM 112 may be substituted for HLT $143 .{ }^{2}$ Students who wish to pursue a Baccalaureate degree are advised to take both ENG 111 and $112 .{ }^{3}$ Taking both PSY 231 and 232 will substitute for PSY 230. ${ }^{4}$ Humanities/Fine Arts: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.
and demonstrate good ethical behavior and professionalism, appropriately evaluate and critique radiographic examinations for diagnostic quality, communicate effectively, and employ problem-solving and critical thinking skills.

## Special Considerations

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:

- One unit of Biology with lab, one unit of Chemistry with lab, and two units of mathematics (Algebra I, and Algebra II and/or Geometry) with a "C" or better;
- Biology 101 and Chemistry 05 will be considered equivalent to high school Biology and Chemistry. Math 03,04 and 06 will be considered equivalent to high school Algebra I, Algebra II, and Geometry;
- 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;
- Submitted radiography application (including all high school and college transcripts or copy of GED);
- 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);
- Complete entrance test and attend a general information session. An interview with Radiography program faculty may be required.
- Because entry into this program is competitive, students must complete the application process with the Admissions Office at SWCC by no later than January 15 th.


## 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.

Selected learning experiences will be provided at the cooperating hospitals within the geographic areas served by the colleges. The student is expected to provide transportation to such facilities. Travel, time and expense, must be anticipated because of program design and location. The purchase of items such as student's uniforms, accessories, physical, vaccinations, background checks, and liability insurance is the financial responsibility of the individual student.

## Criminal Background/Drug 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. Cost for criminal background checks and drug testing will be the responsibility of the student.

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## COMPUTED TOMOGRAPHY

Career Studies (SWCC)

| FIRST YEAR FALL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Cours |  | Course Title | Credit | Progress |
| RAD | 247 | Cross Sectional Anatomy for CTMR | 3 |  |
| RAD | 242 | CT Procedures and Instrumentation | 2 |  |
| RAD | 195 | Topics in Pharmacology for Technologists | 1 |  |
| RAD | 196 | Clinical Internship in CT | 1 |  |
| FIRST YEAR SPRING |  |  |  |  |
| RAD | 295 | Topics in CT Registry Preparation | 3 |  |
| RAD | 196 | Clinical Intersship in CT | 2 |  |
| HLT | 145 | Ethics for Healthcare Personnel | 2 |  |
| Total Minimum Credits for Certificate |  |  | 14 |  |

Note: Students wishing to take a specific course or specific courses within this curriculum, or complete this curriculum one course per semester, may do so with permission of faculty. This certificate is awarded by Southwest Virginia Community College.

For Further Information Contact: Christy Lee - clee@mecc.edu - 276.523.2400 ext. 208
Kim Dorton, Health Science Coordinator - kdorton@mecc.edu - 276.523.2400 ext. 356

## 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
If a course requires an English Composition or English Fundamentals requisite level, see below to determine how this requirement may be satisfied:

- ENF 1: VPT placement of ENF 1(XEN1) or ENF 2 (XEN2) or ENF 3 (XEN3) or ENG 111 (XE11)
- ENF 2: ENF 1 completion or VPT placement of ENF 2 (XEN2) or ENF 3 (XEN3) or ENG 111 (XE11)
- ENF 3: ENF 1 completion or ENF 2 completion or VPT placement of ENF 3 (XEN3) or ENG 111 (XE11)
- ENG 111: ENF 1 completion or ENF 2 completion or ENF 3 (XEN3) completion or VPT Placement of ENG 111 (XE11)
- ENG DVS test credit based on SAT or ACT test scores satisfies all reading and writing level requisites.
Test credit may be viewed on the Degree Progress Report at MECC Online, www.mecc.edu.


## 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 \& 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.

## ACCOUNTING (ACC) <br> ACC 105 Office Accounting (3 CR.)

Presents practical accounting for secretaries. Covers the accounting cycle-journals, ledgers, working papers, closing of books-payrolls, financial statements, accounting forms and practical procedures. ENF 2 requisite level. Lecture 3 hours per week.

ACC 111-112 Accounting I-II (3-4 CR.)(3-4 CR.) Presents fundamental accounting concepts and principles governing the accounting cycle, journals, ledgers, working papers, and preparation of financial statements for sole proprietorships, partnerships, and corporations. Must be taken in sequence. ENF 3 requisite level. Lecture 3-4 hours. Total 3-4 hours per week.

## ACC 115 Applied Accounting (3 CR.)

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 3-4 hours per week.

## ACC 124 Payroll Accounting (3 CR.)

Presents accounting systems and methods used in computing and recording payroll to include payroll taxes and compliance with federal and state legislation. Prerequisite: ACC 105, 111, or 211. Lecture 3 hours per week.

## ACC 134 Small Business Taxes (3 CR.)

Introduces taxes most frequently encountered in business. Includes payroll, sales, property, and income tax. Studies the fundamentals of income tax preparation of business taxes for small businesses organized as proprietorships, partnerships, limited liability companies, and S-corporations. Includes income tax preparation related to business assets; business of the home; employment taxes; withholding and estimated taxes; Schedule C, SE and 1040; self-employed retirement plans, tip reporting and allocation rules, etc. Also includes discussion and practice in recording of payroll for a small business. Lecture 3 hours per week.

## ACC 211-212 Principles Of Accounting I-II (3 CR.)(3 CR.)

Presents accounting principles and their application to various businesses. Covers the accounting cycle, income determination, asset valuation, and financial reporting. Studies services, merchandising, and includes internal controls. Must be taken in sequence. ENF 3 requisite level. Lecture 3-4 hours per week.

ACC 215 Computerized Accounting (3-4 CR.) 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 105 , 111, or 211. Lecture 3-4 hours per week.

## ACC 219 Governmental And Not-For-Profit Accounting (3 CR.)

Introduces fund accounting as used by governmental and nonprofit entities. Stresses differences between accounting principles for for-profit and not-for-profit organizations. Co-requisite ACC 112 or 212 . Lecture 3 hours per week.

ACC 221 Intermediate Accounting I (3-4 CR.)
Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities, and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Co-requisite ACC 112 or 212. Lecture 3-4 hours per week.

ACC 222 Intermediate Accounting II (3-4 CR.) Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Prerequisite ACC 221. Lecture 3-4 hours per week.

ACC 231-232 Cost Accounting I-II (3 CR.)(3 CR.)
Studies cost accounting methods and reporting as applied to job order, process, and standard cost accounting systems. Includes cost control, profit analysis, and other topics. Co-requisite ACC 112 or 212 . Must be taken in sequence. Lecture 3 hours per week.

## ACC 261-262 Principles Of Federal Taxation I-II

 (3 CR.)(3 CR.)Presents the study of federal taxation as it relates to individuals and other related entities. Includes tax planning, compliance and reporting. Must be taken in sequence. ENF 3 requisite level. Lecture 3 hours per week.

ACC 290 Internship In Accounting (3 CR.)
Supervised on-the-job training in selected business, industrial, or service firms and coordinated by the college. Credit/practice ratio maximum 1 to 5 . Variable hours.

ACC 298 Seminar And Project (3 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. Co-requisite ACC 222. Variable hours.

## ADMINISTRATION OF JUSTICE (ADJ) ADJ 100 Survey Of Criminal Justice (3 CR.)

Presents an overview of the United States criminal justice system; introduces the major system compo-nents-law enforcement, judiciary, and corrections. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 105 The Juvenile Justice System (3 CR.)

Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the rights of juveniles, dispositional alternatives, rehabilitation methods and current trends. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 107 Survey Of Criminology (3 CR.)

Surveys the volume and scope of crime; considers a variety of theories developed to explain the causation of crime and criminality. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 111 Law Enforcement Organization \& Administration I (3 CR.)

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. Prerequisite for ADJ 112, divisional approval or ADJ 111. ENF 2 requisite level. May be taken out of sequence. Lecture 3 hours per week.

## ADJ 112 Law Enforcement Organization \& Administration II (3 CR.)

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. Prerequisite for ADJ 112, divisional approval or ADJ 111. ENF 2 requisite level. May be taken out of sequence. Lecture 3 hours per week.

ADJ 127 Firearms And Marksmanship (3 CR.)
Surveys lethal weapons in current usage and current views on weapon types and ammunition design. Examines the legal guidelines as to use of deadly force, safety in handling of weaponry, and weapon care and cleaning; marksmanship instruction under standard range conditions. Prerequisite permission of instructor. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ADJ 130 Introduction To Criminal Law (3 CR.)
Surveys the general principles of American criminal law, the elements of major crimes, and the basic steps of prosecution procedure. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 131 Legal Evidence I (3 CR.)

Surveys the identification, degrees, and admissibility of evidence for criminal prosecution; examines pretrial and trial procedures as they pertain to the rules of evidence. ENF 2 requisite level. Must be completed in sequence. Lecture 3 hours per week.

## ADJ 133 Ethics And The Criminal Justice Professional (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 138 Defensive Tactics (2 CR.)

Surveys and demonstrates the various types of nonlethal force tools and tactics for use by criminal justice personnel in self- defense, arrest, search, restraint and transport of those in custody. Lecture 2 hours per week.

## ADJ 139 Private Detectives/Investigators (3-5

 CR.)Instructs the student in investigative techniques, criminal law and procedure, rules of evidence, the techniques and mechanics of arrest. Meets state certification requirements for private investigators licensing. ENF 2 requisite level. Lecture 3-5 hours per week.

## ADJ 140 Introduction To Corrections (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

ADJ 146 Adult Correctional Institutions (3 CR.) Describes the structures, functions, and goals of state and federal correctional institutions (prisons, farms, community-based units, etc.) for adult inmates. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 152 Unarmed Security Offers - Duties And Responsibilities (1 CR.)

Surveys the theory and practice of un-armed private security personnel duties and responsibilities. Prepares student for licensing and professionalism. Lecture 1 hour per week.

## ADJ 153 Armed Security Officers - Duties And Responsibilities (1 CR.)

Surveys the theory and practice of armed private security personnel duties and responsibilities; prepares student for licensing and professionalism. Lecture 1 hour per week.

## ADJ 168 Computer Applications In Administration Of Justice (3 CR.)

Provides instruction in the techniques and practices used to identify the automation needs of criminal justice agencies: covers the use of computer applications in the processing of operational and administrative records and standardized reports; discusses the use of rational data base applications to develop specialized reports. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ADJ 171-172 Forensic Science I-II (4 CR.)(4 CR.) Introduces students 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, thinlayer chromatographic methods, and arson materials examination. ENF 2 requisite level. May be completed out of sequence. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ADJ 195 Concealed Weapons Permit (1 CR.)

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

## ADJ 198 Seminar And Project (3 CR.)

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. ENF 2 requisite level. Variable hours per week.

## ADJ 198 Seminar And Project In Criminal Justice Agency Management (3 CR.)

The course will consist of an independent study in the comparison of Criminal Justice Agency Missions and Management. ENF 2 requisite level.

## ADJ 227 Constitutional Law For Justice Personnel (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 234 Terrorism And Counter-Terrorism (3 CR.)

Surveys the historical and current practices of terrorism that are national, transnational, or domestic in origin. Includes biological, chemical, nuclear, and cyber-terrorism. Teaches the identification and classification of terrorist organizations, violent political groups and issue-oriented militant movements. Examines investigative methods and procedures utilized in counter terrorist efforts domestically and internationally. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 236 Principles Of Criminal Investigation (3 CR.)

Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling, and preserving of evidence. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 241 Correctional Law I (3 CR.)

Studies the legal rights \& obligations of the convictprobationer, inmate, and parolee. Surveys methods of enforcing both rights \& obligations \& the responsibilities of corrections agencies \& personnel under correctional law (constitutional, statutory, and regulatory provisions). ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 245 Management Of Correctional Facilities (3 CR.)

Describes management options and operational implications for staffing, security, safety, and treatment. Considers impact of changes in public policy on corrections. ENF 3 requisite level. Lecture 3 hours per week.

ADJ 246 Correctional Counseling (3 CR.)
Presents concepts and principles of interviewing and counseling as applied in the correctional setting. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 248 Probation, Parole, And Treatment (3 CR.)

Surveys the philosophy, history, organization, personnel and functioning of traditional and innovative probation and parole programs; considers major treatment models for clients. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 275 Forensic Pathology (3 CR.)

Introduces the pathology and physiology of the human body with emphasis on scientific name and technique used in medicolegal investigations of death. Studies types of death, the mechanisms of death and death reflex, and the determining of the cause of death by postmortem examination. Writing level requisite ENF 3. Lecture 3 hours per week.

## ADJ 295 Comparative Studies In Criminal Justice (3 CR.)

In order to apply criminal justice theory to practice, and to explore the mission and goals of agencies within the Criminal Justice System, this course will allow the student to participate in an on-site criminal justice learning experience in a variety of criminal justice agencies. Appropriate tours will be with police departments, sheriff's departments, juvenile and adult probation departments, correctional institutions, and departments of social services. Variable hours per week.

## ADJ 295 Legal Terminology (3 CR.)

Provides an understanding of legal terminology with emphasis on developing an understanding of legal terminology through the study of law itself and on using the terminology in different ways rather than relying solely on learning through rote memorization. ENF 2 requisite level. Lecture 3 hours per week.

## ADJ 296 On-Site Training In Criminal Justice ( 3 CR .)

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, sheriff's 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. ENF 2 requisite level.

## ADMINISTRATIVE SUPPORT <br> TECHNOLOGY (AST) <br> AST 100 Office Skills Review (3 CR.)

Reviews office skills such as keyboarding typewriting, shorthand, machine transcription and other selected office topics based on individual needs. ENF 1 requisite level. Lecture 3-4 hours per week.

## AST 101 Keyboarding I (3 CR.)

Teaches the alpha/ numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports and tabulation. A laboratory co-requisite (AST 103) may be required. ENF 1 requisite level. Lecture 2-4 hours per week.

## AST 107 Editing/Proofreading Skills (3 CR.)

Develops skills essential to creating and editing business documents. Covers spelling, grammar, dictation and punctuation, capitalization, and other usage problems. ENF 1 requisite level. Lecture 3 hours per week.

## AST 108 Telephone Techniques (1 CR.)

Provides guidelines and techniques for communicating effectively on the telephone and for handling telephone problems efficiently, pleasantly, and constructively. ENF 1 requisite level. Lecture 1 hour per week.

## AST 112 Keyboarding Skill (3 CR.)

Emphasizes speed and accuracy to attain skills for job employment and job promotion. Prerequisite: AST 101 or AST 114 or equivalent. Lecture 3 hours per week.

## AST 114 Keyboarding For Information

Processing (1-2 CR.)
Teaches the alphabetic and numeric keys; develops correct techniques and competency in the use of computer keyboards. May include basic correspondence and report formats. A laboratory co-requisite (AST 115) may be required. Lecture 1-2 hours per week.

## AST 117 Keyboarding For Computer Usage (1 CR.)

Teaches the alphabetic keyboard and $10-\mathrm{key}$ pad. Develops correct keying techniques. ENF 1 requisite level. Lecture 1 hour per week.

## AST 132 Word Processing I (Microsoft Word) (1 CR.)

Introduces students to a word processing program to create, edit, save and print documents. ENF 1requisite level. Lecture 1 hour per week.

AST 133 Word Processing II (Microsoft Word) (1 CR.)
Presents formatting and editing features of a word processing program. ENF 1 requisite level. Lecture 1 hour per week.

## AST 137 Records Management (3 CR.)

Teaches filing procedures for hard copy, electronic, and micrographic systems. Identifies equipment, supplies, and solutions to records management problems. ENF 3 requisite level. Lecture 3 hours per week.

## AST 141 Word Processing I (Wp For Windows) (3 CR.)

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. Pre-requisite AST 101 or equivalent. A laboratory co-requisite (AST 144) may be required. Lecture 3 hours per week.

## AST 147 Introduction To Presentation Software (1-2 CR.)

Introduces presentation options including slides, transparencies, and other forms of presentations. Lecture 1-2 hours per week.

## AST 150 Desktop Publishing I (1 CR.)

Presents desktop publishing features including page layout and design, font selection, and use of graphic images. Lecture 1 hour per week.

## AST 151 Desktop Publishing II (1 CR.)

Presents software features for refining page layout and design, includes scaling and cropping graphics, and creating styles. Lecture 1 hour per week.

AST 154 Voice Recognition Application (1-2 CR.)
Teaches the computer user to use the voice as an input device to compose documents and to give commands directly to the computer. Lecture 1-2 hours per week.

## AST 155 Introduction To Desktop Information Management (1 CR.) <br> Teaches desktop information management to organize schedules through the calendar. Students learn how to manage electronic messages, appointments, contacts, tasks, and files. Students prepare or Core Microsoft Outlook MOUS Exam. ENF 2 requisite level. Lecture 1 hour per week.

## AST 160 Learning The Internet For Business (1 CR.) <br> Introduces students to basic internet terminol-

ogy and services including email, www browsing, search engines, and other services. Provides an introduction to electronic commerce in an office environment. ENF 2 requisite level. Lecture 1 hour per week.

## AST 171 Introduction To Callcenter Services (3 CR.)

Introduces concepts and skills needed to be an effective customer service representative for a telephone service operation. Covers call center theory and technology, interpersonal communication skills, customer relations attitudes, telecommunications techniques, and professional procedures to handle a variety of customer service sales requests. Lecture 3 hours per week.

## AST 205 Business Communications (3 CR.)

Teaches techniques of oral and written communications. Emphasizes writing and presenting businessrelated materials. ENF 2 requisite level. Lecture 3 hours per week. Prerequisites: AST 109 and AST 141.

## AST 206 Professional Development (3 CR.)

Develops professional awareness in handling business and social situations. Emphasis on goal setting and decision making. ENF 3 requisite level. Lecture 3 hours per week.

## AST 215 Medical Keyboarding (3 CR.)

Develops decision making skills, speed, and accuracy in preparation of medical documents with emphasis on meeting office requirements. Prerequisite AST 141. A laboratory co-requisite (AST 216) may be required. Lecture 2-4 hours per week.

## AST 236 Specialized Software Applications (3 CR.)

Teaches specialized integrated software applications on the microcomputer. Emphasizes document production to meet business and industry standards. Prerequisite: AST 101 or equivalent. A laboratory co-requisite (AST 237) may be required. ENF 2 requisite level. Lecture 3 hours per week.

## AST 238 Word Processing Advanced Operations

 (3 CR.)Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. A laboratory co-requisite (AST 239) may be required. Prerequisite: AST 141. Lecture 3 hours per week.

## AST 240 Machine Transcription (3 CR.)

Develops proficiency in the use of transcribing
equipment to produce business documents. Emphasizes listening techniques, business English, and proper formatting. Includes production rate and mailable copy requirements. A laboratory co-requisite (AST 241) may be required. Co-requisite AST 112 or equivalent. ENF 3 requisite level. Lecture 3 hours per week.

## AST 243 Office Administration I (3 CR.)

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 141. Lecture 3 hours per week.

## AST 244 Office Administration II (3 CR.)

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. Lecture 3 hours per week.

AST 245 Medical Machine Transcription (3 CR.) Develops machine transcription skills, integrating operation of transcribing equipment with understanding of medical terminology. Emphasizes dictation techniques and accurate transcription of medical documents in prescribed formats. A laboratory co-requisite (AST 246) may be required. ENF 3 requisite level. Lecture 3 hours per week.

## AST 247 Legal Machine Transcription (3 CR.)

Develops machine transcription skills, integrating operation of transcribing equipment with understanding of legal terminology. Emphasizes dictation techniques and accurate transcription of legal documents in prescribed formats. A laboratory co-requisite (AST 248) may be required. ENF 3 requisite level. Lecture 2-4 hours per week.

AST 253 Advanced Desktop Publishing I (2-4 CR.) Introduces specific desktop publishing software. Teaches document layout and design, fonts, type styles, style sheets, and graphics. A laboratory corequisite (AST 255 ) may be required. ENF 2 requisite level. Lecture 2-4 hours per week.

## AST 257 WP Desktop Publishing (3 CR.)

Uses word processing software to teach advanced document preparation. Prerequisite AST 101 or equivalent and experience in using the specified
word processing software. A laboratory co-requisite (AST 258) may be required. Lecture 3 hours per week.

## AST 260 Presentation Software (3 CR.)

Teaches creation of slides including use of text, clip art, and graphs. Includes techniques for enhancing presentations with onscreen slide show as well as printing to transparencies and handouts. Incorporates use of sound and video clips. A laboratory corequisite (AST 261) may be required. ENF 2 requisite level. Lecture 3 hours per week.

AST 265 Legal Office Procedures (3 CR.)
Introduces general office procedures used in law office and courts. Prerequisites: ENG 111 and AST 141. Lecture 3 hours per week.

## AST 271 Medical Office Procedures I (3 CR.)

Covers medical office procedures, records management, preparation of medical reports, and other medical documents. ENF 2 requisite level. Co-requisite AST 102 or equivalent. Lecture 3 hours per week.

## AST 272 Medical Office Procedures II (3 CR.)

Develops skills in the performance of administrative and support services in a medical setting. Covers professional ethics, medical legal issues, and interaction with patients. Prerequisite AST 271 or equivalent. Lecture 3 hours per week.

## AST 290 Internship In Administrative Support Technology (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. ENF 3 requisite level. Variable hours.

## AST 298 Seminar And Project In Administrative Support Technology (1-5 CR.)

Completion of an office simulation package, a research report related to the manner the students' objectives were accomplished and an employment portfolio. ENF 2 requisite level. Variable hours. Agriculture (AGR)

## AGR 205 Soil Fertility And Management (3 CR.)

 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. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.AGR 208 Insect Control (3 CR.)
Examines principles and current trends in insect control. Studies biology and identification of economically important insects and related pests. ENF 2 requisite level. Lecture 2-3 hours. Laboratory 2 hours. Total $4-5$ hours per week.

## AIR CONDITIONING AND REFRIGERATION (AIR)

## AIR 111-112 Air Conditioning And Refrigeration Controls I-II (3 CR.)(3 CR.)

Presents electron theory, magnetism, Ohm's Law, resistance, current flow, instruments for electrical measurement, A.C. motors, power distribution controls and their application. May be completed out of sequence. Lecture 2 hours.

## AIR 116 Duct Construction And Maintenance (2 CR.)

Presents duct materials including sheet metal, aluminum, and fiber glass. Explains development of duct systems, layout methods, 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 1 hour. Laboratory 2 hours. Total 3 hours per week.

## AIR 121 Air Conditioning \& Refrigeration I-II (4 CR.)

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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AIR 154 Heating Systems I (3 CR.)
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. Lecture 2 hour. Laboratory 2 hours. Total 4 hours per week.

## AIR 205 Hydronics And Zoning (4 CR.)

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. ENF 2 requisite level. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AIR 235 Heat Pumps (3 CR.)
Studies theory and operation of reverse cycle refrigeration systems as applied to air conditioning, including service, installation and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## AIR 281 Energy Management I (3 CR.)

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. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## AIR 282 Energy Management II (2 CR)

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 or II. Lecture 1 hour. Laboratory 3 hours per week. Total four hours per week.

## AIR 298 Seminar And Project (3 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. Variable hours per week.

## ARCHITECTURE (ARC) ARC 121 Architectural Drafting I (3 CR.)

Introduces techniques of architectural drafting, including lettering, dimensioning, and symbols. Requires production of plans, sections, and elevations of a simple building. Studies use of common reference material and the organization of architectural working drawings. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ARC 122 Architectural Drafting II (3 CR.)

A continuation of Architectural Drafting I. Requires development of a limited set of working drawings, including a site plan and related details, and pictorial drawings. Prerequisite ARC 121 or equivalent. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ARTS (ART)
ART 100 Art Appreciation (3 CR.)
Introduces art from prehistoric times to the present day. Describes architectural styles, sculpture, photography, printmaking, and painting techniques. ENF 3 requisite level. Lecture 3 hours per week.

## ART 101-102 History And Appreciation Of Art I-II (3 CR.) (3 CR.)

Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. ENF 3 requisite level. May be taken out of sequence. Lecture 3 hours per week.

## ART 121-122 Drawing I-II (3 CR.) (3 CR.)

Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. ENF 2 requisite level. Variable hours per week. Prerequisite for ART 122 is ART 121.

## ART 125 Introduction To Painting (3 CR.)

Introduces study of color, composition and painting techniques. Places emphasis on experimentation and enjoyment of oil and/or acrylic paints and the fundamentals of tools and materials. ENF 2 requisite level. Lecture 2 hours. Studio instruction 3 hours. Total 5 hours per week.

## ART 131-132 Fundamentals Of Design I-II (3 CR.) (3 CR.)

Explores the concepts of two and three-dimensional design and color. May include field trips. ENF 2 requisite level. Variable hours per week. May be taken out of sequence.

## ART 180 Introduction To Computer Graphics (3 CR.)

Provides a working introduction to computer-based electronic technology used by visual artists and designers. Presents the basics of operating platforms and standard industry software. Introduces problems in which students can explore creative potential of the new electronic media environment. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ART 198 Introduction To Animation (4 CR.)

This course offers the student an introduction to animation. The Student will become familiar with the 12 basic principles of 2D and 3D animation through
the use of both traditional and computer assisted techniques. Also, basic cinematic composition, basic color theory, and basic studio practices will be introduced and used to create a 3 minute final animation project. ENF 3 requisite level.

## ART 207 3-D Model Rendering (4 CR.)

Introduces the student to the basic principles of three-dimensional objects and environments with both traditional methods and materials and those inherent in the microcomputer-based system. ENF 3 requisite level. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

ART 221-222 Drawing III-IV (3CR.) (3CR.)
Introduces advanced concepts and techniques of drawing as applied to the figure, still life and landscape. Gives additional instruction in composition, modeling, space and perspective. Encourages individual approaches to drawing. ENF 3 requisite level. Variable hours per week. Prerequisite for ART 222 is ART 221.

## ART 241-242 Painting I-II (3 CR.) (3 CR.)

Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisites ART 122 or divisional approval. ENF 3 requisite level. Variable hours per week. Prerequisite for ART 242 is ART 241.

## ART 275 Relief Printmaking (4 CR.)

Introduces relief printmaking techniques including woodcut, linocut, and collograph. Includes field trips when applicable. ENF 3 requisite level. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week.

## ART 283-284 Computer Graphics I-II (4 CR.) (4 CR.)

Introduces microcomputers and software used to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. ENF 3 requisite level. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week. May not be taken out of sequence. Prerequisite for ART 284 is ART 283.

## AMERICAN SIGN LANGUAGE (ASL) ASL 101 American Sign Language I (3-4 CR.)

Introduces the fundamentals of American Sign Language (ASL) used by the deaf community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces
cultural knowledge and increases understanding of the deaf community. Lecture 3-4 hours. Laboratory $0-2$ hours. Total 3-5 hours per week. ENF 3 requisite level.

ASL 102 American Sign Language II (3-4 CR.) Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. Prerequisite: ASL 101. Lecture $3-4$ hours. Laboratory $0-2$ hours. Total $3-5$ hours per week. ENF 2 requisite level.

## ASL 115 Fingerspelling And Number Use In Asl (2 CR.)

Provides intensive practice in comprehension and production of finger-spelled words and numbers with emphasis on clarity and accuracy. Focuses on lexicalized fingerspelling and numeral incorporation as used by native users of American Sign Language. Prerequisite: ASL 101 or permission of instructor. Lecture 2 hours per week. ENF 3 requisite level.

## ASL 125 History And Culture Of The Deaf Community (3 CR.)

Presents an overview of various aspects of Deaf Culture, including educational and legal issues. ENF 3 requisite level. Lecture 3 hours per week.

## ASL 150 Working With Deaf And Hard-OfHearing People (2 CR.)

Explores career options for serving deaf/hard-ofhearing people and/or for using American Sign Language skills in a career. Examines interests, skills, and educational assessments. Investigates job market viability via the Internet and professional periodicals. Develops opportunities for students to network with professionals in the field of deafness. ENF 3 requisite level. Lecture 2 hours per week.

## ASL 201 American Sign Language III (3-4 CR.)

Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge. Lecture 3-4 hours. Laboratory hours 0-2 hours. Total 3-5 hours per week. ENF 3 requisite level.

## AVIATION (ARO)

## ARO 121 Private Pilot Ground School (3 CR.)

Presents the fundamental principles of flight including theory of flight, aircraft standards and specifications, basic aircraft construction, weight and balance, navigation, meteorology, principles of radio communication and application of aerophysics. Prepares students for the FAA examination for private pilot rating. Lecture 3 hours per week.

## AVIONIC \& AVIATION MECHANICS (AVI)

 AVI 195 Introduction To Unmanned Aerial Systems (3 CR.)Provides an introduction to the history, theory, design, construction, flight, and potential utilizations of unmanned aerial systems with a specific focus on quadcopters. Lecture 3 hours per week.

## AVI 295 Unmanned Aerial Systems (Fixed-Wing) (3 CR.)

Presents a detailed investigation into the history, principles, utilization, design, construction, configuration, programming, testing, maintenance, flight, and regulations pertaining to fixed-wing unmanned aerial vehicles.

## BIOLOGY (BIO)

BIO 101-102 General Biology I-II (4 CR.)(4 CR.)
Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Readiness to enroll in ENG 111 plus completion of developmental math unit 3 required, or placement in math unit 4 or above. Prerequisite for BIO 102 is BIO 101. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

## BIO 141-142 Human Anatomy And Physiology I-II (4 CR.)(4 CR.)

Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. ENF 3 requisite level. Must be taken in sequence. Lecture 3 hours. Laboratory 3 hours per week. Total 6 hours per week.

## BIO 145 Human Anatomy And Physiology For The Health Sciences (4 CR.)

Introduces human anatomy and physiology primarily to those planning to pursue an AAS degree in nursing. Covers basic chemical concepts, cellular physiology, as well as the anatomy and physiology of human organ systems. ENF 3 requisite level. Lecture 3-4 hours. Laboratory 3 hours. Total 6-7 hours per week.

BIO 205 General Microbiology (4 CR.)
Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites: BIO 102 and CHM 112, or Divisional Approval. ENF 3 requisite level. Must be taken in sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

## BIO 231-232 Human Anatomy And Physiology I-II (4 CR.)(4 CR.)

Integrates the study of gross and microscopic anatomy with physiology, emphasizing the analysis and interpretation of physiological data. Prerequisites one year of college biology and one year of college chemistry or divisional approval. BIO 102 and ENF 3 requisite level. Must be taken in sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

## BUILDING (BLD)

BLD 105 Shop Practices And Procedures (2-3 CR.) 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. ENF 2 requisite level. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

## BLD 110 Introduction To Construction (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## BLD 149 Carpentry I (3 CR.)

Presents an introduction to carpentry, with an emphasis on residential/light construction. Introduces basic carpentry terminology. Covers identification and proper use of hand and power tools common to the industry, construction materials, construction techniques, safety precautions, working drawings and the team approach to construction. ENF 2 requisite level. Lecture 3 hours per week.

BLD 184 Interior And Exterior Finishes (3 CR.) Introduces the student to interior wall framing with wood and/or metal studs, layout of walls, and the steps required to successfully complete interior framing. Also covers the steps used for exterior fin-
ishes, such as siding, cornice work, and gutters. ENF 2 requisite level. Lecture 3 hours per week.

## BLD 187 Structure Completion (3 CR.)

Introduces the finishing techniques required in new construction, such as wall finishes, floor finishes, ceiling systems, interior trim, cabinet installation, and stairs. Also includes types of tools used for these techniques. ENF 2 requisite level. Lecture 3 hours per week.

## BLD 249 Carpentry II (3 CR.)

Presents advanced concepts of carpentry as they relate to residential/light construction, including theoretical and practical applications. Covers advanced framing techniques, finish and trim systems, and calculations commonly required in all phases of light construction. Prerequisite: BLD 149. ENF 2 requisite level. Lecture 3 hours per week.

## BUSINESS ADMINISTRATION AND MANAGEMENT (BUS) <br> BUS 100 Introduction To Business (3 CR.)

Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, finance, marketing, production, and risk and human resource management. ENF 2 requisite level. Lecture 3 hours per week.

BUS 106 Security Awareness For Managers (3 CR.) Covers concepts and terminology related to information security and risk assessment. Topics cover perspective from a manager and end-user's point of view and will include the identification of security threats, types of hardware/software solutions available and identifying policies and procedures to reduce the severity of security attacks. Includes the completion of a risk assessment and security plan for an organization and/or department. ENF 3 requisite level. Lecture 3 hours per week.

## BUS 111 Principles Of Supervision I (3-4 CR.)

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. ENF 2 requisite level. Lecture 3-4 hours per week.

## BUS 116 Entrepreneurship (3 CR.)

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 3 hours per week.

BUS 121 Business Mathematics I (3 CR.)
Applies mathematics to business processes and problems such as checkbook records and bank reconciliation, simple interest notes, present value, bank discount notes, wage and payroll computation, depreciation, sales and property taxes, commercial discounts, markup and markdown, and inventory turnovers and valuation. ENF 3 requisite level. Lecture 3 hours per week.

## BUS 165 Small Business Management (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours per week.

## BUS 200 Principles Of Management (3 CR.)

Teaches management and the management functions of planning, organizing, directing and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. ENF 3 requisite level. Lecture 3 hours per week.

BUS 202 Applied Management Principles (3 CR.) Focuses on management practices and issues. May use case studies and/or management decision models to analyze and develop solutions to management problems. ENF 3 requisite level. Lecture 3 hours per week. Prerequisite is BUS 200.

BUS 205 Human Resource Management (3 CR.) Introduces employment, selection, and placement of personnel, usage levels and methods, job descriptions, training methods and programs, and employee evaluation systems, compensation and labor relations. Includes procedures for management of human resources and uses case studies and problems to demonstrate implementation of these techniques. ENF 3 requisite level. Lecture 3 hours per week.

BUS 211 Managing Technology Resources (3 CR.) Covers basic technology concepts, selection of ven-
dors, evaluation of hardware/software solutions, identification and establishment of technology standards, and basic project management. Emphasizes development of policies and procedures to effectively and efficiently manage information technology. Provides techniques to enable the student to leverage technology to benefit the organization. Includes the completion of a detailed technology plan for an organization and/or department. ENF 3 requisite level. Lecture 3 hours per week.

## BUS 235 Business Letter Writing (3 CR.)

Applies composition principles to business correspondence, employment documents, and reports (including presentation of data in various chart formats). Focuses on preparing effective communications with customers, suppliers, employees, the public, and other business contacts. Lecture 3 hours per week.

BUS 236 Communication In Management (3 CR.)
Introduces the functions of communication in management with emphasis on gathering, organizing, and transmitting facts and ideas. Teaches the basic techniques of effective oral and written communication. Lecture 3 hours per week. ENF 3 requisite level.

## BUS 241 Business Law I (3 CR.)

Presents a broad introduction to legal environment of U.S. business. Develops a basic understanding of contract law and agency and government regulation. ENF 2 requisite level. Lecture 3 hours per week.

## BUS 242 Business Law II (3 CR.)

Develops a basic understanding of the uniform commercial code relating to business organization, bankruptcy, and personal and real property. Prerequisite BUS 241. Lecture 3 hours per week.

## BUS 280 Introduction To International Business

 (3 CR.)Studies the problems, challenges, and opportunities which arise when business operations or organizations transcend national boundaries. Examines the functions of international business in the economy, international and transnational marketing, production, and financial operations. ENF 3 requisite level. Lecture 3 hours per week.

## BUS 285 Current Issues In Management (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours per week.

CHEMISTRY (CHM)
CHM 5 Developmental Chemistry For Allied Health Sciences (4 CR.)
Introduces basic principles of inorganic, organic, and biological chemistry. Emphasizes applications to the health sciences. ENF 3 requisite level. Lecture 3 hours per week. Laboratory 3 hours per week.

CHM 101-102 General Chemistry I-II (4 CR.) (4 CR.)
Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for the non-science major and must be completed in sequence. ENF 3 requisite level. Test credit or completion of MTE 1, 2, and 3. Lecture 3 hours per week. Laboratory 3 hours per week. Total 6 hours per week.

## CHM 111-112 College Chemistry I-II (4 CR.)(4 CR.)

Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. ENF 3 requisite level. MTE requisite: Test credit or completion of MTE 1, 2, and 3. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite for CHM 112 is CHM 111.

CHM 241-242 Organic Chemistry I-II (3 CR.) (3 CR.)
Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Co-requisite is CHM 245-246. ENF 3 requisite level. Lecture 3 hours per week. Prerequisite is CHM 112.

## CHM 245-246 Organic Chemistry Laboratory I-II (2 CR.)(2 CR.)

Is taken concurrently with CHM 241 and CHM 242 by chemistry and chemical engineering majors. Includes qualitative organic analysis. ENF 3 requisite level. Laboratory 6 hours per week.

## CHILD DEVELOPMENT (CHD) CHD 118 Methods And Materials In The Language Arts For Children (3 CR.)

Presents techniques and methods for encouraging the development of language and perceptional skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality story-telling and story reading, and stresses
the use of audiovisual materials. Reading Level Requisite ENF 2. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## CHD 120 Introduction To Early Childhood Education (3 CR.)

Introduces early childhood development through activities and experiences in nursery, 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. ENF 2 requisite. Lecture 2 hours per week.

## CHD 125 Creative Activities For Children (3 CR.)

 Prepares individuals to work with young children in the arts and other creative age-appropriate activities. Investigates affective classroom experiences and open-ended activities. ENF 2 requisite. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.
## CHD 126 Science \& Math Concepts For Children (3 CR.)

Covers the selection of appropriate developmental learning materials for developing activities to stimulate the logical thinking skills in children. ENF 2 requisite. Lecture 2-3 hours. Laboratory 0-3 hours. Total 3-4 hours per week.

## CHD 165 Observation And Participation In Early Childhood/Primary Settings (3 CR.)

Observes and participates in early childhood settings such as child care centers, pre-schools, Montessori schools or public schools in Kindergarten through 3rd grade levels. Students spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. ENF 2 requisite. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

## CHD 166 Infant And Toddler Programs (3 CR.)

Examines the fundamentals of infant and toddler development, including planning and implementing programs in group care. Emphasizes meeting physical, social, emotional, and cognitive needs: scheduling, preparing age-appropriate activities, health and safety policies, record keeping, and reporting to parents. ENF 2 requisite. Lecture 3 hours per week.

## CHD 205 Guiding The Behavior Of Children (3 CR.)

Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and tech-
niques in classroom management. ENF 2 requisite. Lecture 3 hours per week.

## CHD 215 Models Of Early Childhood Education

 Programs (3 CR.)Studies and discusses the various models and theories of early childhood education programs including current trends and issues. Presents state licensing and staff requirements. ENF 2 requisite. Lecture 3 hours per week.

## CHINESE (CHI) <br> CHI 101 Beginning Chinese I (5 CR.)

Introduces understanding, speaking, reading, and writing skills; emphasizes basic Chinese sentence structure. Prerequisite: CHI 101 for CHI 102. Part I of II. Lecture 5 hours per week.

## CHI 102 Beginning Chinese II (5 CR.)

Introduces understanding, speaking, reading, and writing skills; emphasizes basic Chinese sentence structure. Prerequisite: CHI 101 for CHI 102. Part II of II. Lecture 5 hours per week.

## CIVIL ENGINEERING TECHNOLOGY (CIV) <br> CIV 116 Topographic Drafting (3 CR.)

Focuses on the development of techniques for topographic data computation, topographic map preparation and interpretation. Includes preparation of maps from survey field data, terrestrial and aerial photography, and techniques for the use of color in topographic presentations. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## CIV 171 Surveying I (3 CR.)

Introduces surveying equipment, procedures, and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computation and introduction to topography. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## CIV 172 Surveying II (3 CR.)

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. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CIV 240 Fluid Mechanics And Hydraulics (3 CR.) 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. ENF 2 requisite level. Lecture 3 hours per week.

CIV 246 Water Resources Technology (3 CR.)
This course introduces the elements of hydrology and hydraulic systems. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## COMMUNICATION STUDIES AND THEATER (CST)

CST 100 Principles Of Public Speaking (3 CR.)
Applies theory and principles of public address with emphasis on preparation and delivery. ENF 3 requisite level. Lecture 3 hours per week.

## CST 105 Oral Communication (3 CR.)

Studies effective communication with emphasis on speaking and listening. ENF 3 requisite level. Lecture 3 hours per week.

## CST 110 Introduction To Speech Communication (3 CR.)

Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level. Lecture 3 hours per week.

## CST 116 Speech Workshop (1-6 CR.)

Enables work in competitive speech activities such as debate, oratory, impromptu speaking, prose and poetry reading, and rhetorical criticism. May be repeated for credit. Variable hours per week.

CST 130 Introduction To The Theatre (3 CR.)
Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. ENF 3 requisite level. Lecture 3 hours per week.

## CST 131-132 Acting I-II (3 CR.)(3 CR.)

Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Must be taken in sequence.

CST 151-152 Film Appreciation I-II (3 CR.)(3 CR.) Aims to increase the student's knowledge and enjoyment of film and film criticism through discussion and viewing of movies. ENF 3 requisite level. Lecture 3 hours per week. Must be taken in sequence.

CST 250 The Art Of The Film (3 CR.)
Introduces the art of the film through a survey of film history; viewing, discussion, and analysis of selected films. Studies film techniques such as composition, shot sequence, lighting, visual symbolism, sound effects, and editing. ENF 3 requisite level. Lecture 3 hours per week.

CST 266 Outdoor Drama (3 CR.)
Enables students to study production techniques through participation as actors or technicians in outdoor drama. Prerequisite: divisional approval. Variable hours per week.

## DRAFTING (DRF) <br> DRF 127 Introduction To Geometric Dimensioning \& Tolerancing (1 CR.)

Presents an overview of a positional tolerance system, its relationship to coordinate tolerance systems, and other aspects of industry standard drafting practices. ENF 2 requisite level. Lecture 1 hour per week.

## DRF 135 Electrical/Electronics Blueprint Reading (2 CR.)

Presents an interpretation of basic shop drawings, conventional symbols, terminology, and principles used by the mechanical draftsman. Explains common electrical and electronic symbols, wiring diagrams, schematic drawings, and application of wiring diagrams. Lecture 2 hours per week.

## DRF 151-152 Engineering Drawing Fundamentals I-II (3 CR.)(3 CR.)

Introduces technical drafting from the fundamentals through advanced drafting practices. Includes lettering, geometric construction, technical sketching, orthographic projection, sections, intersections, development, and fasteners. Teaches theory and application of dimensioning and tolerances, pictorial drawing, and preparation of drawings. ENF 2 requisite level. Must be taken in sequence. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

DRF 160 Machine Blueprint Reading (3 CR.)
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. ENF 2 requisite level. Lecture 3 hours per week.

DRF 165 Architectural Blue Print Reading (3 CR.) Emphasizes reading, understanding and interpreting standard types of architectural drawings including plans, elevation, sections and details. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## DRF 166 Welding Blueprint Reading (2 CR.)

Teaches welding procedures and applications. Stresses structural steel, design, and layout. Explains industrial symbols. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

DRF 175 Schematics And Mechanical Diagrams (2 CR.)
Covers interpretation of basic shop drawings, conventional symbols, and common electrical and electronics symbols, wiring diagrams, hydraulic and pneumatic symbols, schematic drawings, and piping diagrams. Lecture 2 hours per week.

## DRF 200 Survey Of Computer-Aided Drafting (3-4 CR.)

Surveys computer-aided drafting equipment and concepts. Develops general understanding of components, operations and use of a typical CADD system. Variable hours per week. ENF 2 requisite level.

## DRF 201 Computer-Aided Drafting \& Design I (3 CR.)

Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## DRF 231 Computer-Aided Drafting I (2-3 CR.)

Teaches computer aided drafting concepts and equipment designed to develop a general understanding of components and operate a typical CAD system. Prerequisite DRF 111 or DRF 160 or divisional approval. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

DRF 232 Computer-Aided Drafting II (2-3 CR.)
Teaches advanced operation in computer-aided drafting. Prerequisite DRF 231. Lecture 1-2 hours. Laboratory 2-3 hours. Total 3-5 hours per week.

## DRF 233 COMPUTER-AIDED DRAFTING III (2 CR.)

Exposes a student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system. ENF 2 requisite level. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

## DRF 290 COORDINATED INTERNSHIP (4 CR.)

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. ENF 2 requisite level.

DRF 298 Seminar And Project In Drafting (4 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. ENF 2 requisite level. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

## ECONOMICS (ECO) <br> ECO 110 Consumer Economics (3 CR.)

Fosters understanding of American economic system and the individual's role as a consumer. Emphasizes application of economic principles to practical problems encountered. Alerts students to opportunities, dangers, and alternatives of consumers. ENF 3 requisite level. Lecture 3 hours per week.

## ECO 120 Survey Of Economics (3 CR.)

Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economies. Provides some comparison with other economic systems. Includes some degree of exposure to microeconomic and macroeconomic concepts. ENF 3 requisite level. Lecture 3 hours per week.

## ECO 201 Principles Of Economics I Macroeconomics (3 CR.)

Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. ENF 3 requisite level. Lecture 3 hours per week.

## ECO 202 Principles Of Economics II Microeconomics (3 CR.)

Introduces the basic concepts of microeconomics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticity, marginal benefits and costs, profits, and production and distribution. ENF 3 requisite level. Lecture 3 hours per week.

## EDUCATION (EDU) <br> EDU 200 Introduction To Teaching As A

## Profession (3 CR.)

Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs,
and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: successful completion of 24 credits of transfer courses. ENG 111 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## EDU 280 Technology Standards For Teachers (3 CR.)

Provides K-12 classroom teachers with the knowledge and skills needed to fulfill the Commonwealth of Virginia's Technology Standards for Instructional Personnel. Certification is dependent on the supervisor's or employer's approval. Pre-requisite of ITE 119 or instructor approval. Lecture 3 hours per week.

## ELECTRICAL TECHNOLOGY (ELE) ELE 110 Home Electric Power (3 CR.)

Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, and transformers. Includes study of the National Electrical Code, purpose, and interpretation. ENF 1 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ELE 131-132 National Electrical Code I-II (3-4 CR.)(3-4 CR.)

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. Must be taken in sequence. ENF 2 requisite level. Lecture 2-3 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

## ELE 133-134 Practical Electricity I-II (3 CR.) (3 CR.)

Teaches the fundamentals of electricity, terminology, symbols, and diagrams. Includes the principles essential to the understanding of general practices, safety and the practical aspects of residential and nonresidential wiring and electrical installation. May require preparation of a report as an out-ofclass activity. ENF 1 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ELE 135 National Electrical Code - Residential (4 CR.)

Studies purposes and interpretations of the National Electrical Code that deals with single and multifamily dwellings, including state and local regulations. ENF 1 requisite level. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

ELE 136 National Electrical Code - Commercial (3 CR.)
Provides comprehensive study of the purposes and interpretation of national electrical wiring methods, including state and local regulations. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ELE 137 National Electric Code - Industrial (3 CR.)

Provides comprehensive study of the purposes and interpretations of the National Electrical Code that deal primarily with industrial wiring methods, including state and local regulations. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 140 Basic Electricity And Machinery (4 CR.) 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. ENF 2 requisite level. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

## ELE 150 A.C.and D.C. Circuit Fundamentals (3-4 CR.)

Provides an intensive study of the fundamentals of direct and alternating current, resistance, magnetism, inductance and capacitance, with emphasis on practical applications. ENF 1 requisite level. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

## ELE 151 Electrical Troubleshooting (3 CR.)

Teaches troubleshooting as applied to residential wiring and/or electrical appliances. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ELE 156 Electrical Control Systems (3 CR.)

Includes troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits. May include preparation of a report as an out-of-class activity. Prerequisite ELE 140. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ELE 160 Power Controls (3 CR.)

Introduces basic electrical and other controls used in home and industry. Includes application of panels, fuse boxes, breakers, and transformers, experiments to develop testing and trouble- shooting techniques. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ELE 173 Commercial Wiring Methods (3 CR.)

Covers electrical wiring methods and standards used for commercial buildings and provides a comprehensive study of the national electrical code that deals with commercial wiring installations including state and local regulations. Includes building wiring as well as the wiring of electrical equipment and appliances in a commercial environment. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ELE 178 Wind Turbine Technology (3 CR.)

Introduces many facets of the wind industry. Introduces the history and development of the wind systems as well as the future of the wind industry as the desire for alternative energy grows. Presents the terminology used in the application of wind systems. Identifies the various types of wind energy turbines and other topics as appropriate. Includes safety training. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ELE 217 Electric Power Utilities (2 CR.)

Provides an introduction to the electric power utilities field. Examines the generation, transmission and distribution of electrical energy. Lecture 2 hours per week.

## ELE 238 Control Circuits (3 CR.)

Deals with the principles and applications of electrical devices for differentiation, integration and proportioning. Includes hardware and circuitry for AC and $D C$ control devices as well as contractors, starters, speed controllers, time delays, limit switches, and pilot devices. Applies in the control of industrial equipment motors, servo units, and motor-driven actuators. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ELE 239 Programmable Controllers (2-3 CR.)

Deals with installation, programming, interfacing, and concepts of troubleshooting programmable controllers. ENF 2 requisite level. Prerequisite ELE 140 or equivalent. Lecture 2-3 hours. Laboratory $0-3$ hours per week. Total 2-6 hours per week.

## ELE 290 Coordinated Internship (3 CR.)

Supervises on-the-job training in selected business, industrial, or service firms, coordinated by the college. Credit/practice ration not to exceed 1:5 hours. May be repeated for credit.

## ELE 298 Seminar \& Project (3 CR.)

Requires completion of a project related to the student's occupational objectives and a study of approaches to the selection and pursuit of career op-
portunities in the field. Lecture 2 hours. Laboratory 4 hours. Total 4 hours per week.

## ELECTRONICS SERVICING (ESR) <br> ESR 150 Software Configuration And Diagnostics (3-4 CR.)

Teaches use and configuration of personal computer operating systems and applications programs, with emphasis on solving software-induced problems. Includes use of system utilities and selected diagnostic software. Includes use of a programming language. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

## ESR 228 Computer Troubleshooting And Repair

 (3-4 CR.)Teaches procedures for isolating and correcting problems in computers and computer-related hardware. Emphasizes operational concepts, use of diagnostic software and troubleshooting equipment. ENF 3 requisite level. Lecture 1-3 hours. Laboratory 3-6 hours. Total 6-7 hours per week.

## ELECTRONICS TECHNOLOGY (ETR) ETR 100 Electronic Problem Solving Laboratory (1 CR.)

Focuses on enabling the student to improve skills in various areas of study. May include electronic measurements, circuit assembly, troubleshooting circuits, and computer applications to problem solving. Laboratory 3 hours per week.

## ETR 113-114 D.C. And A.C. Fundamentals (4 CR.)(4 CR.)

Studies D.C. and A. C. circuits, basic electrical components, instruments, network theorems, and techniques used to predict, analyze and measure electrical quantities. Must be taken in sequence. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 143 Devices And Applications I (3 CR.)

Teaches theory of active devices and circuits such as diodes, power supplies, transistors (BJT'S), amplifiers and their parameters, fets, and op amps. May include UJT'S, oscillators, RF amplifiers, thermionic devices, and others. ENF 3 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## ETR 166 Fundamentals Of Computer Technology (4 CR.)

Introduces computer use and literacy. May include operating systems, high level language programming, word processors, spreadsheets, and other generic software. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 167 Logic Circuits And Systems I (4 CR.)
Studies digital switching and logic circuits, number systems, Boolean algebra, logic gates and families. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 168 Digital Circuit Fundamentals (3 CR.)

Covers the fundamentals of digital logic and the study of digital circuits and their applications. ENF 3 requisite level. Lecture 3 hours per week.

## ETR 218 Industrial Electronics Circuits (4 CR.)

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. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 228 Computer Troubleshooting And Repair (4 CR.)

Teaches procedures for isolating and correcting problems in computers and computer-related hardware. Emphasizes operational concepts, use of diagnostic software and troubleshooting equipment. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 231 Principles Of Lasers And Fiber Optics (4 CR.)

Teaches the theory and application of lasers and fiber optics. Includes optics, fiber optic cables and connectors, photo detectors, optical pulse generation, sensors, multiplexers, lasers, gas lasers, semiconductor lasers, laser safety and laser test instruments. May include preparation of a report as an out-of-class activity. ENF 3 requisite level. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

## ETR 232 Principles Of Lasers And Fiber Optics

 II (3-4 CR)Continues to study the theory and application of lasers and fiber optics. Includes optics, fiber optic cables and connectors, photo detectors, optical pulse generation, sensors, multiplexers, and laser safety. ENF 3 requisite level. Lecture 2-3 hours. Laboratory 2-4 hours. Total 4-6 hours per week.

ETR 241 Electronic Communications I (3-4 CR.) Studies noise, information and bandwidth, modulation and demodulation, transmitters and receivers, wave propagation, antennas and transmission lines. May include broad band communication systems, microwave, both terrestrial and satellite, fiber optics, multiplexing and associated hardware. ENF 3 requisite. Lecture 2-3 hours. Laboratory 3 hours. Total 5-6 hours per week.

ETR 248 Instruments And Measurements (2 CR.) Studies circuits used in electronics measurement and application of these circuits to test instruments such as oscilloscopes, electronic meters, and bridges. Stresses the accuracy of measurements, how instruments work, proper use of instruments, and calibration techniques. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

## ETR 250 Intermediate Electronics (4 CR.)

Teaches theory and application of amplifiers and oscillators. Includes amplifier circuit configurations, amplifier classes, operational amplifiers, power amplifiers, bandwidth distortion, and principles of feedback. ENF 2 requisite. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 256-257-258 Devices And Circuit Design I-II-III (4 CR.)(4 CR.)(4 CR.)

Studies devices, applications and design of circuits incorporating these devices. Utilizes accepted design and analysis techniques using appropriate device and circuit modes. May include diodes, transistors, thermistors, thermionic devices, op amps, power supplies, amplifiers, oscillators, filters and switching circuits. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ETR 259 Linear Integrated Circuits (4 CR.)
Studies linear integrated devices, circuits and applications. May include analysis of linear IC's, op amps, op amp circuits, regulator circuits, oscillatory circuits, wave shaping circuits, active filter, signal processing; $\mathrm{A} / \mathrm{D}$ and $\mathrm{D} / \mathrm{A}$ conversion, modulation and demodulation, timers, special analog circuits, new topics and troubleshooting methods. ENF 3 requisite. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 273-274-275 Computer Electronics I-II-III (4 CR.)(4 CR.)(4 CR.)

Applies principles of digital electronics and microprocessors to familiarize the student with typical circuits used to interface computer and/or controllers with various I/O devices. May include exposure to high level programming as well as assembly language routines. Must be taken in sequence. ENF 3 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ETR 294 Technical Certification (2 CR.)

Reviews materials on various options of certification exams to prepare students for certification. May address any one option of certification. Course may be repeated for credit. Reading Level Requisite ENG 4. Writing level requisite ENG 3. Variable hours per week.

## EMERGENCY MEDICAL SERVICES TECHNOLOGY (EMS)

EMS 100 CPR For Healthcare Providers (1 CR.) Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. Lecture: 1 hour per week. Total 1 hour per week.

## EMS 101 EMS First Responder (3 CR.)

Provides education in the provision of emergency medical care for persons such as Police, non-EMS Fire personnel, industrial personnel and the general public who are likely to be the first medically trained personnel on the scene of an injury or illness. Meets current Virginia Office of Emergency Medical Services curriculum for First Responder. Lecture: 3 hours. Total 3 hours per week.

## EMS 111 Emergency Medical Technician-Basic (7 CR.)

Prepares student for certification as a Virginia and National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Co-requisite: EMS 120. Prerequisite: CPR certification at the Health Care Provider level. ENF 1 requisite level. Lecture: 5 hours. Lab: 4 hours. Total 9 hours per week.

## EMS 112 Emergency Medical Technician-Basic I (3 CR.)

The first of a two semester paired course that prepares student for certification as a Virginia and/ or National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Lecture: 2 hours. Lab: 2 hours. Total 4 hours per week.

## EMS 113 Emergency Medical Technician-Basic II (3 CR.)

The second of a two semester paired course that prepares student for certification as a Virginia and/or National Registry EMT-Basic. Includes all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medicine Technician Basic. Lecture: 2 hours. Lecture: 2 hours. Lab: 2 hours. Total 4 hours per week.

EMS 115 Emergency Medical Technician-Basic Refresher (2CR.)
Meets Virginia Office of Emergency Medical Ser-
vices requirements for recertification at the EMTBasic level. This course will meet for 4 additional clock hours of lab over and above the didactic portion. ENF 1 requisite level. Lecture: 2 hour per week. Total 2 hours per week.

## EMS 120 Emergency Medical Technician-Basic Clinical (1 CR.)

This course is a co-requisite of either EMS 111 or EMS 113, dependent upon the pro- gram in which the student is participating. The time spent observing in a program approved clinical/ field settings. ENF 1 requisite level. Lab: 2 hours.

## EMS 151 Introduction To Advanced Life Support (4 CR.)

Prepares the student for Virginia Enhanced certification eligibility and begins the sequence for National Registry Intermediate and/or Paramedic certification. Includes the theory and application of the following: foundations, human systems, pharmacology, overview of shock, venous access, airway management, patient assessment, respiratory emergencies, allergic reaction, and assessment based management. Conforms to the Virginia Office of Emergency Medical Services curriculum. Corequisite:

## EMS 153 Basic ECG Recognition (2 CR.)

Focuses on the interpretation of basic electrocardiograms (ECG) and their significance. Includes an overview of anatomy and physiology of the cardiovascular system including structure, function and electrical conduction in the heart. Also includes advanced concepts that build on the knowledge and skills of basic dysrhythmia determination and introduction to 12 lead ECG. Lecture 2 Hours Per Week. Total 2 hours per week.

## EMS 154 ALS - Cardiac Care (2 CR.)

Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of cardiac conditions. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

## EMS 155 ALS - Medical Care (4 CR.)

Continues the Virginia Office of Emergency Medical Services Intermediate and /or Paramedic curricula. Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of multiple medical complaints. These include, but are not limited to conditions relating to cardiac, diabetic,
neurological, non-traumatic abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions. Prerequisites include current EMT-B certification, EMS 151 and EMS 153. Lecture 3 hours per week, Lab: 2 hours per week. Total 5 hours per week.

## EMS 157 ALS - Trauma Care (3 CR.)

Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. At the completion of this course, the student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the trauma patient. Prerequisites include current EMT-B certification and EMS 151. Lecture 2 hours per week, Lab: 2 hours per week. Total 4 hours per week.

## EMS 159 ALS - Special Populations (3 CR.)

Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Focuses on the assessment and management of specialty patients including obstetrical, neonates, pediatric, and geriatrics. Prerequisites include EMS 151 and EMS 153. Pre or co-requisites include EMS 155. Lecture: 2 hours per week. Lab: 2 hours per week. Total 4 hours per week.

## EMS 161 Basic Trauma Life Support (BTLS) (1 CR.)

Offers instruction for students in current topics of care for trauma patients and offers certification as a Basic Trauma Life Support Provider (BTLS) as defined by the American College of Emergency Physicians. Prerequisites: Current certification/ licensure as an EMS provider or other allied healthcare provider. Lecture: 16 hours. Total 16 hours.

## EMS 163 Pre-Hospital Trauma Life Support (PHTLS) (1 CR.)

Prepares for certification as a Pre- hospital Trauma Life Support provider as defined by the American College of Surgeons. Prerequisites: EMS 111 or equivalent. Lecture: 1 hours. Total 1 hours.

## EMS 165 Advanced Cardiac Life Support (ACLS) (1 CR.)

Prepares for certification as an Advanced Cardiac Life provider. Follows course as defined by the American Heart Association. Prerequisites: EMS 100, 153 or equivalent. Lecture: 1 hours. Total 1 hours.

## EMS 167 Neonatal Resuscitation Program (NRP) (1 CR.)

Provides the student information in current topics in the care of newborn patients to current AAP/

American Heart Association- Neonatal Resuscitation Program guidelines. Prerequisite-Current certification/ licensure as an advanced EMS provider or other allied healthcare provider. Lecture: 1 hours. Total 1 hours.

## EMS 168 Emergency Pediatric Care (PEPP) (1 CR.)

Prepares the student for certification as a pre-hospital pediatric care provider as defined by the American Academy of Pediatrics. Covers primary assessment and emergency care of infants and children. ENF 1 requisite level. Lecture: 1 hour per week. Total 1 hour per week.

## EMS 169 Pediatric Advanced Life Support (PALS) (1 CR.)

Prepares the student for certification as a pediatric advanced life support provider as defined by the American Heart Association. Covers primary assessment and emergency care of infants and children. Lecture: 1 hour per week. Total 1 hour per week.

## EMS 170 ALS Internship (1 CR.)

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. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

## EMS 172 ALS Clinical Internship II (1-2 CR.)

The second 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 and Trauma Centers. Co-requisite: EMS 151. ENF 1 requisite level. Lab: 3-6 hours per week. Total 4896 hours.

## EMS 173 ALS Field Internship II (1 CR.)

The second in a series of field experiences providing super- vised direct patient care in out-of-hospital advanced life support units. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

EMS 201 EMS Professional Development (3 CR.)
Prepares students for Paramedic certification at the National Registry Level by fulfilling community activism, personal wellness, resource management, ethical considerations in leadership and research ob-
jectives in the Virginia Office of Emergency Medical Services Paramedic curriculum. ENF 1 requisite level. Lecture: 3 hours per week. Total 3 hours per week.

## EMS 205 Advanced Pathophysiology (4 CR.)

Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body by systems. Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment. ENF 1 requisite level. Lecture: 4 hours per week. Total 4 hours per week.

## EMS 207 Advanced Patient Assessment (3 CR.)

Focuses on the principles of normal and abnormal physical exam. Emphasizes the analysis and interpretation of physiological data to assist in patient assessment and management. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. ENF 1 requisite level. Lecture: 2 hours per week. Lab: 2 hours per week. Total 4 hours per week.

## EMS 209 Advanced Pharmacology (4 CR.)

Focuses on the principles of pharmacokinetics, pharmacodynamics and drug administration. Includes drug legislation, techniques of medication administration, and principles of math calculations. Emphasizes drugs used to manage respiratory, cardiac, neurological, gastrointestinal, fluid and electrolyte and endocrine disorders and includes classification, mechanism of action, indications, contra-indications, precautions, and patient education. Incorporates principles related to substance abuse and hazardous materials. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. ENF 1 requisite level. Lecture: 3 hours per week. Lab: 2 hours per week. Total 5 hours per week.

## EMS 211 Operations (2 CR.)

Prepares the student in the theory and application of the following: medical incident command, rescue awareness and operations, hazardous materials incidents, and crime scene awareness. (Conforms to the current Virginia Office of Emergency Medical Services curriculum for EMT-Paramedics.) Lecture: 1 hour per week. Lab: 2 hours per week. Total 3 hours per week.

## EMS 213 ALS Skills Development (1-2 CR.)

This course may be utilized to reinforce and remediate additional advanced life support skills, as needed. Lab: 2-4 hours per week. Total 2-4 hours per week.

## EMS 215 Paramedic Review (1-2 CR.)

Reviews material covered in the intermediate/paramedic program. Prepares the student for National Registry testing. Lecture: 1 hour per week. Lab: 0-2 hours per week. Total 1-3 hours per week.

## EMS 242 ALS Clinical Internship III (1 CR.)

This is the third 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. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

## EMS 243 ALS Field Internship III (1 CR.)

The third in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life sup- port units. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

## EMS 244 ALS Clinical Internship IV (1 CR.)

The fourth 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 and Trauma Centers. One credit course, may be repeated as necessary. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

## EMS 245 ALS Field Internship IV (1 CR.)

The fourth in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. One credit course, may be repeated as necessary. ENF 1 requisite level. Lab: 3 hours per week. Total 48 hours.

## EMS 251 ALS Required Topics (3 CR.)

Reviews material covered in the ALS programs. Covers all category 1 content required for Advanced Life Support recertification. Lab: 3 hours per week. Total 3 hours per week.

EMS 256 12-Lead ECG Interpretation (2-3 CR.) Prepares students to interpret 12-lead electrocardiograms and recognize acute myocardial injury as well as infarct imitators. Includes lead placement, collection of the 12-lead ECG, review of cardiac anatomy and physiology, electrical conduction through the heart, common dysrhythmias, and pathophysiology of AMI and infarct imitators. Includes field treatment of the acute coronary syndrome.

## EMS 298 Project And Seminar In Paramedic Upgrade/Refresher (5CR.)

Covers didactic and practical skill material found in the 1998 Federal DOT Paramedic Curriculum that was not part of the 1985 curriculum. Emphasis is placed on injury prevention, wellness, in-depth anatomy, pathophysiology, and pharmacology. The course also includes techniques of advanced patient exam and assessment, trauma and airway skills. Neonatology, Pediatrics, and Gerontology are also covered. National Registry Recertification requirements will be met with this course. Lecture: 5 hours per week. Total 5 hours per week.

## ENGINEERING (EGR) EGR 125 Introduction To Engineering Methods (3 CR.)

Applies problem-solving techniques to engineering problems utilizing computer programming and algorithms in a higher level computer language such as FORTRAN, PASCAL, or $\mathrm{C}++$. Lecture 3 hours.

## EGR 127 Introduction To Computer Programming (3 CR.)

Introduces programming in a higher level language such as FORTRAN, BASIC or PASCAL, or C++ on the microcomputer. Uses the operating system, packaged software and peripheral devices. Emphasizes engineering program problem solving. Lecture 2 hours. Laboratory 2 hours.

## ENERGY (ENE)

ENE 100 Conventional And Alternate Energy Applications (4 CR.)
Provides an overview of hydroelectric, coal, and nuclear energy production methods and renewable solar, geothermal, wind, and fuel cell technology. A complete system breakdown of conventional power production methods, efficiency, and sustainability when compared with solar, geothermal, wind, and fuel cell applications. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 ours. Total 6 hours per week.

## ENE 105 Solar Thermal Active And Passive Technology (4 CR.)

Provides a comprehensive study of thermal technology as it applies to collector types and ratings, open-loop versus closed-loop and system sizing. Introduces hydronics, hot water, and pool heating applications. Provides an introduction to fluid dynamics and chemistry as it applies to system installation and maintenance. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 110 Solar Power Installations (4 CR.)
Covers wiring, control, conversion, and ties to es-
tablished power systems. Studies use of invertors, batteries, and charging systems. Prerequisite: ELE 140. Lecture 3 hours. ENF 2 requisite level. Laboratory 3 hours. Total 6 hours per week.

ENE 120 Solar Power (4 CR.)
Studies the production and conversion of electrical energy from modular to grid power systems. Covers the storage of energy, thermal solar capture, and storage for residential and commercial applications. Covers energy conversion and storage equipment based on size and efficiency. Prerequisite: ELE 157, ELE 140 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 220 Wind Power Generation (4 CR.)
Studies wind turbines, their location, efficiency, and cost. Covers power generation with wind turbines, storage, conversion to established values, use of batteries, invertors, grid tie systems, and all necessary wiring installations. Prerequisite: ELE 157, ELE 140, or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ENE 230 Geothermal Applications (4 CR.)

Studies the use of geothermal energy for large and small scale production. Covers the feasibility of heat pump applications for local use on an individual basis. Prerequisite: ELE 140 or equivalent. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## ENGLISH FUNDAMENTALS (ENF) ENF 1 English Fundamentals I (8 CR.)

Provides integrated reading and writing instruction for students who require extensive preparation to succeed in college-level English courses. Students will place into this course based on VPT-English (Virginia Placement Test-English). Upon successful completion and faculty recommendation, students will move into ENF 3 (if they require additional preparation) or into college-level English (if they require no additional preparation). Requisite: VPT placement of ENF 1.

## ENF 2 English Fundamentals II (4 CR.)

Provides integrated reading and writing instruction for students who require intermediate preparation to succeed in college-level English courses. Upon successful completion and faculty recommendation, students will move into ENF 3 (if they require additional preparation) or into college- level English (if they require no additional preparation). Requisite: VPT placement of ENF 2.

## ENF 3 English Fundamentals III (2 CR.)

Provides integrated reading and writing instruction for students who require minimal preparation for college- level English but still need some preparation to succeed. Students in this course will be coenrolled in college-level English. Requisite: VPT placement of ENF 3.

## ENGLISH (ENG)

## ENG 111 College Composition I (3 CR.)

Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Requisite: VPT placement of ENG 111; or VPT Placement of ENF 3 (coenrolled with ENG 111); or ENF 1 completed; or ENF 2 completed. Lecture 3 hours per week.

## ENG 112 College Composition II (3 CR.)

Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Prerequisite: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software. Lecture 3 hours per week.

## ENG 115 Technical Writing (3 CR.)

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. ENG 111 requisite level. Lecture 3 hours per week.

## ENG 121-122 Introduction To Journalism I-II (3

 CR.)(3 CR.)Introduces students to all news media, especially news gathering and preparation for print. Prerequisite is ENG 111 or 112 or divisional approval. Lecture 3 hours per week.

## ENG 210 Advanced Composition (3 CR.)

Helps students refine skills in writing nonfiction prose. Guides development of individual voice and style. Introduces procedures for publication. Prerequisite is ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 211-212 Creative Writing I-II (3 CR.)(3 CR.)
Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. ENG 112 or division approval is a prerequisite. Lecture 3 hours per week.

## ENG 241-242 Survey Of American Literature I-II (3 CR.)(3 CR.)

Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite ENG 112 or division approval. Lecture 3 hours per week. May be taken out of sequence.

## ENG 243-244 Survey Of English Literature I-II (3 CR.)(3 CR.)

Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite ENG 112 or division approval. Lecture 3 hours per week. May be taken out of sequence.

## ENG 251-252 Survey Of World Literature I-II (3 CR.)(3 CR.)

Examines major works of world literature. Involves critical reading and writing. Prerequisite ENG 112 or division approval. Lecture 3 hours per week. May be taken out of sequence.

## ENG 253-254 Survey Of African-American Literature I-II (3 CR.)(3 CR.)

Examines selected works by Black American writers from the colonial period to the present. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval.

ENG 256 Literature Of Science Fiction (3 CR.)
Examines the literary and social aspects of science fiction, emphasizing development of ideas and techniques through the history of the genre. Involves critical reading and writing. Prerequisite ENG 112. Lecture 3 hours per week.

ENG 278 Appalachian Literature (3 CR.)
Examines selected works of outstanding authors of the Appalachian region. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

ENVIRONMENTAL SCIENCE (ENV)
ENV 108 Environmental Microbiology (3 CR.)
Studies characteristics and activities of microorganisms, 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. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ENV 110 Introduction To Water \& Wastewater Technology (3 CR.)

Provides an understanding of the basic principles of transportation, processing and disposal of water and wastewater. The course will trace the flow of water from the source through treatment, storage, distribution, use, waste collection, treatment, and discharge back into the environment. In addition to the lectures, a laboratory will be provided consisting of a combination of field experiences as well as more traditional laboratory exercises. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ENV 115 Water Purification (3 CR.)

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 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ENV 149 Wastewater Treatment Plant Operation

 (3 CR.)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. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ENV 190 Coordinated Internship In Water/ Wastewater (4 CR.)

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. ENF 2 requisite. Variable hours.

## ENV 193 Your Role In The Green Environment (1 CR.)

Introduces the student to techniques that reduce the environmental impact of building construction and operation. Starting with an overview of the effects of one's daily personal and work habits on the green environment, the course covers best practices for the construction industry and concludes with an analysis of the LEED green building rating system. ENF 1 requisite level. Lecture 15 hours.

ENV 211-212 Sanitary Biology And Chemistry I-II (3 CR.) (3 CR.)
Teaches theory and laboratory techniques for control tests of water purification including bacteriology, color, turbidity, pH , alkalinity, hardness, coagulations, chlorides, fluorides, iron, manganese, deter- gents, 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. ENF 2 requisite level. Must be taken in sequence. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ENV 220 Environmental Problems (3 CR.)
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. ENF 2 requisite level. Lecture 3 hours per week.

ENV 227 Environmental Law (3 CR.)
Introductory course in environmental law designed to acquaint the student with the different facets of law that affects the citizens of the world. ENF 2 requisite level. Lecture 3 hours per week.

## ENV 230 GIS: Applications In Environmental

Science (3 CR.)
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. Prerequisites: MTH 02, GIS 200. [This course covers the same content as GIS 230. Credit will not be granted for both courses]. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## ENV 235 Soil Conservation And Spoils Management (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## ENV 290 Coordinated Internship (4 CR.)

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. ENF 2 requisite level. Variable hours.

ENV 296 On-Site Training In Landscaping (4 CR.) Specializes in career orientation and training program without pay in selected business and industry, supervised and coordinated by the college. ENF 2 requisite. Variable hours.

## ENV 298 Seminar And Project In Forest Science And Environmental Science (4 CR.)

Requires completion of a project or research report related to student's occupational objective. Variable hours per week. ENF 2 requisite level.

## ENV 298 Seminar And Project In Meteorology (4 CR.)

Requires completion of project or research report related to student's occupational objective. Topics include: Earth's atmosphere, energy transfer, air movement, weather patterns, climate types, and climatic exchange in the environment. Variable hours per week. ENF 2 requisite level.

## ENV 298 Seminar And Project In Astronomy (4 CR.)

Requires completion of a project or research report related to student's occupational objective. Topics include: Radiation from space, early space missions, current and future space missions, earth, moon and exploring earth's moon. Variable hours per week. ENF 2 requisite level.

ENV 298 Seminar And Project In Oceanography (4 CR.)
Requires completion of a project or research report related to student's occupational objective. Topics include: Ocean water, ocean currents, waves and tides, seafloor, ocean life and pollution. Variable hours per week. ENF 2 requisite level.

## ENV 298 Seminar And Project In Forest Science And Environmental Science (4 CR.)

Requires completion of a project or research report related to student's occupational objective. Variable hours per week. ENF 2 requisite level.

## FINANCE (FIN) <br> FIN 107 Personal Finance (3 CR.)

Presents a framework of personal money management concepts, including establishing values and goals, determining sources of income, managing income, preparing a budget, developing consumer buying ability, using credit, under- standing savings and insurance, providing for adequate retirement, and estate planning. ENF 2 requisite level. Lecture 3 hours per week.

FIRE SCIENCE TECHNOLOGY (FST)
FST 100 Principles Of Emergency Services (3 CR.) Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function to public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. Lecture 3 hours per week.

FST 110 Fire Behavior And Combustion (3 CR.) Explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. Lecture 3 hours per week.

## FORESTRY (FOR)

FOR 100 Introduction To Forestry (3 CR.)
The purpose of this course is to learn the general concepts of forestry and forest resource use in the United States. Field trips and laboratory assignments will be made in place of a formal lab. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## FOR 115 Dendrology (4 CR.)

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. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## FOR 125 Forest Fire Control (1 CR.)

Examines forest fire behavior. Includes factors causing ignition and spread, methods of fire prevention and pre-suppression, and forest fire control organizations. Lecture 1 hour per week.

FOR 135 Wildlife And Fish Management (4 CR.) Introduces the principles of wildlife and fisheries management, emphasizes practices in United States. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## FOR 198 Seminar And Project In Introduction To Aquaculture (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. ENF 2 requisite. Variable hours.

## FOR 201 Forest Mensuration I (4 CR.)

Teaches principles of forest measurements including basic elements of property boundary, location, forest mapping, tree measurement, saw log and pulp wood scaling. Prerequisites FOR 100 and FOR 115. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## FOR 202 Forest Mensuration II (4 CR.)

Teaches principles of timber cruising including both fixed and variable size plot techniques. Utilizes aerial photographs to locate land features, cruise tracts, timber types, and plot sample locations. Prerequisite: FOR 201. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## FOR 215 Applied Silviculture (4 CR.)

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. Prerequisites FOR 100 and FOR 115. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## FOR 227 Timber Harvesting (5 CR.)

Teaches harvesting methods including physical layout, economics, contracts, silvicultural water management, protection consideration, and woods safety. Co-requisite: FOR 202 and ENF 2. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

## FOR 229 Sawmilling (5 CR.)

Studies arrangement, installation, and operation of small sawmill consisting of head saw, edger, and trimmer for the production of quality hardwood and softwood lumber. ENF 2 requisite. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

## FOR 237 Wildlife Ecology (3 CR.)

Studies wildlife communities and their environmental relation- ships. ENF 2 requisite level. Lecture 3 hours per week.

## FOR 245 Forest Products I (2 CR.)

Introduces forest products. ENF 2 requisite level. Lecture 2 hours per week.

## FOR 290 Coordinated Internship In Forestry (4 CR.)

Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. ENF 2 requisite level. Variable hours.

FRENCH (FRE)
FRE 101-102 Beginning French I-II (4 CR.)(4 CR.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. ENG 111 requisite level. Lecture 4 hours per week. May include one additional hour of oral practice per week.

## GEOGRAPHICAL INFORMATION

 SYSTEMS (GIS)GIS 101 Introduction To Geospatial Technology I (3 CR.)
Provides an introduction to the concepts of Geographic Information Systems (GIS), Global Positioning Systems (GPS) and remote sensing components of Geospatial Technology. Teaches the introductory concepts of geographic location and problem solving by using a GIS and GPS units in demonstrating solutions to cross-curricular applications of technology. Part I or II. Lecture 3 hours per week.

GIS 102 Introduction To Geospatial Technology II (3 CR.)
Continues with the concepts of Geographic Information Systems (GIS), Global Positioning Systems (GPS) and remote sensing components of Geospatial Technology. Covers additional concepts of geographic location and problem solving by using GIS and GPS units in demonstrating solutions to crosscurricular applications of the technology. Part II or II. Lecture 3 hours per week.

GIS 200 Geographical Information Systems I (4 CR.)
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 decisionmaking. Prerequisite: ITE 115, 119, or instructor approval.

## GIS 201 Geographical Information Systems II (4 CR.)

Provides a continuation of GIS 200, with emphasis on advanced topics in problem solving, decisionmaking, modeling, programming, and data management. Covers map projections and data formats, and methods for solving the problems they create. Prerequisite: GIS 200

## GIS 203 Cartography For GIS (3-4 CR.)

Focuses on the fundamental cartographic concepts used in planning, designing, and creating effective maps. Lecture 2-3 hours. Laboratory 2 hours per week.

## GIS 205 GIS 3-Dimensional Analysis (4 CR.)

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 Tin's, DEM's, grids and controlling the perspective and scale of 3D data through rotating, panning, and zooming. Prerequisite GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

GIS 210 Understanding Geographic Data (4CR.) 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. Prerequisite GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

## GIS 215 New GIS Software Platforms And Applications (4 CR.)

Assists users with the transition to newer GIS software platforms and applications. Covers concepts and terminology needed to become proficient in the latest GIS software. Prerequisite GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

## GIS 220 Introduction To Urban And Regional Planning (4CR.)

Provides an overview of how GIS is used in urban and regional planning. Emphasis will be on the use of GIS software to address real world social, economic, and environmental planning problems. Prerequisite GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

GIS 225 GIS Applications For Tax Assessors (4 CR.) Provides an introduction to GIS in the local government tax assessment process. Teaches students how to apply common GIS technical skills to property valuation and the defense of assessed values. Covers how to create spatial queries, produce maps, generate statistics, manipulate tabular data, use charts, and employ other technical skills in major topic areas including special regulations, ratio studies, comparable sales, and parcel data development and maintenance. Prerequisite GIS 201. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

## GIS 230 Applications In Environmental Science (3 CR.)

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. [This course covers the same content as ENV 230. Credit will not be granted for both courses]. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## GEOGRAPHY (GEO) <br> GEO 210 People And The Land: Intro To Cultural Geography (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours per week.

## GEOLOGY (GOL)

GOL 105 Physical Geology (4 CR.)
Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. ENF 3 requisite. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## G0L 111-112 Oceanography I-II (4 CR.)(4 CR.)

Examines the dynamics of the oceans and ocean basins. Applies the fundamental principles and concepts of the four disciplines of oceanography: physical, chemical, biological and geological. ENF 3 requisite. May be taken out of sequence. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

## GOL 225 Environmental Geology (4 CR.)

Explores the interaction between man and his physical environment. Stresses geologic hazards and environmental pollution utilizing case histories. Prerequisite GOL 105. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## GERMAN (GER)

GER 101-102 Beginning German I-II (4-5 CR.) (4-5 CR)
Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Lecture 4-5 hours per week. May include on additional hour of oral practice per week.

## GOVERNMENT (See POLITICAL SCIENCE)

## HEALTH (HLT)

HLT 100 First Aid And Cardiopulmonary
Resuscitation (3 CR.)
Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation.

## HLT 105 Cardiopulmonary Resuscitation (1 CR.)

 Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life- threatening emergencies, and sudden illness. Lecture 1 hour per week.
## HLT 106 First Aid And Safety (2 CR.)

Focuses on the principles and techniques of safety and first aid. ENF 2 requisite level. Lecture 2 hours per week.

## HLT 110 Concepts Of Personal And Community Health (3 CR.)

Studies the concepts related to the maintenance of health, safety, and the prevention of illness at the personal and community level. ENF 3 requisite. Writing level requisite ENF 3. Lecture 3 hours per week.

## HLT 116 Personal Wellness (3 CR.)

Explores the relationship between personal health and physical fitness as they apply to individuals in today's society. Includes nutrition, weight control, stress, conditioning, and drugs. ENF 1 requisite. Lecture 3 hours per week.

## HLT 119 First Responder (3 CR.)

Provides knowledge and proficiency in basic life support and in actions necessary to minimize patient discomfort and prevention of further complications. Meets requirements for Virginia Certification as a first responder. This course is dually listed under EMT, as 105. It is also listed under the Health prefix to allow EMT's business and industry personnel to enroll in a health class to apply toward degree or certificate HLT requirements. ENF 1 requisite level. Total 3 hours per week.

## HLT 121 Introduction To Drug Use And Abuse (3 CR.)

Explores the use and abuse of drugs in contemporary society with emphasis upon sociological, physiological, and psychological effects of drugs. ENF 1 requisite level. Lecture 3 hours per week.

## HLT 130 Nutrition And Diet Therapy (1-2 CR)

Studies nutrients, sources, functions, and requirements with an introduction to diet therapy. ENF 2 requisite. Lecture 1 hour per week.

HLT 135 Child Health And Nutrition (3 CR.)
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. ENF 2 requisite. Lecture 3 hours per week.

## HLT 140 Orientation To Health Related Professions (2 CR.)

Explores the interrelated roles and functions of various members of the health team. Lecture 2 hours per week.

HLT 145 Ethics For Health Care Personnel (2 CR.) 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. ENF 1 requisite level. Lecture 2 hours per week.

## HLT 195 Topics In EKG Technician (2 CR.)

The Diagnostic Cardiography program is designed to prepare the student to enter the exciting field of Cardiographic Technology as an EKG technician, cardiac monitor technician or cardiac stress technician The course includes 30 hours of instructional theory and lab time, and a 4 hour unpaid externship in an area hospital or independent testing facility, which runs concurrently with the program. Students gain knowledge of anatomy and physiology of the heart and cardiac conductive system, basic and advanced arrhythmia interpretation, and 12-lead EKG performance and basic EKG interpretation. In addition, students learn how to perform vital signs, and Basic Cardiac Life Support (BCLS) certification. The use of cardiac ambulatory monitoring applications and scanning is also covered.

## HLT 230 Principles Of Nutrition And Human Development (3 CR.)

Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. ENF 2 requisite. Lecture 3 hours per week.

## HLT 235 Diagnostic Cardiography (4 CR.)

Prepares students for a certification test as a Certified Cardiographic Technician. Focuses on electrocardiograms (ECGs), stress tests, ambulatory monitoring, and rhythm analysis. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

HLT 261-262 Basic Pharmacy I-II (3 CR.)(3 CR.)
Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calcu-
lations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. ENF 2 requisite level. MTE 2 requisite level. Lecture 3 hours per week.

## HEALTHCARE TECHNOLOGY (HCT) <br> HCT 101 Health Care Technician I (3-4 CR.)

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 multi-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. Lecture 3-4 hours per week.

## HCT 102 Health Care Technician II (3-4 CR.)

Applies theory through laboratory experience for health care technicians to word in home health, long and short term facilities. Prerequisite: HCT 101. Lecture 1-2 hours. Laboratory 2-6 hours. Total 4 hours per week.

## HCT 115 Medication Administration Training (2-3 CR.)

Prepares students to safely administer, or to assist in client self-administration of medications in specific settings. Includes practice. Meets curriculum requirements of the State Board of Nursing. ENF 1 requisite. Lecture 1-2 hours. Laboratory 2-6 hours. Total 4-8 hours per week.

## HEALTH INFORMATION MANAGEMENT (HIM)

HIM 101 Health Information Technology I (4 CR.) Introduces values, uses and content of the medical record. Defines numbering, filing and retention policies and practices. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## HIM 111-112 Medical Terminology I-II (3 CR.) (3 CR.)

Introduces the student to the language used in the health record. Includes a system-by-system review of anatomic disease, and operative terms, abbreviations, radiology procedures, laboratory tests, and pharmacology terms. ENF 2 requisite. Lecture 3 hours per week.

## HIM 113 Medical Terminology And Disease <br> Processes I (3 CR.)

This course is designed to introduce students to the language used in the health record by providing an
overview of basic human organ system nomenclature and related pathophysiology's. Includes the study of prefixes, suffixes, stem words, and technical terms: puts emphasis on the causes and treatment of selected disease processes. ENF 2 requisite level. Lecture 3 hours per week.

## HIM 114 Medical Terminology And Disease Processes II (3 CR.)

The course is designed to introduce students to the language used in the health record by providing an overview of basic human organ system nomenclature and related pathophysiology's. Includes the study of prefixes, suffixes, stem words, and technical terms: puts emphasis on the causes and treatment of selected disease processes. ENF 2 requisite level. Lecture 3 hours per week.

## HIM 121-122 Medical Transcription I-II (4 CR.) (4 CR.)

Develops skills in the transcription of various medical record reports, use of transcription references and proof reading reports. Evaluates the productivity and organization of transcription departments/ services and the quality of transcribed reports and equipment utilized. Prerequisite: typing 40 words per minute. ENF 2 requisite level. Lecture 1 hour per week. Laboratory 6 hours per week. Total 7 hours per week.

HIM 130 Healthcare Information Systems (3 CR.) Focuses on microcomputer applications, information systems and applications in the healthcare environment. ENF 2 requisite level. Lecture 3 hours.

## HIM 149 Introduction To Medical Practice Management (2 CR.)

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 2 hours per week.

## HIM 150 Health Records Management (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## HIM 151 Reimbursement Issues In Medical Practice Management (2 CR.)

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 2 hours per week.

## HIM 163 Anatomy And Physiology For Administrative Health Professionals (3 CR.)

Introduces the structure and function of the systems of the human body as applied by administrative health professionals. Prerequisite: HLT 143 or HIM 111. Lecture 3 hours per week.

## HIM 215 Health Data Classification Systems (5 CR.)

Focuses on disease and procedure classification systems currently utilized for collecting health data for the purpose of statistical research and financial reporting. ENF 2 requisite level. Lecture 4 hours. Laboratory 2 hours. Total 6 hours per week.

## HIM 220 Health Statistics (2 CR.)

Introduces the student to basic statistical principles and calculations as applied in the health care environment, procedures for collection and reporting vital statistics, and basic quality control basics. ENF 2 requisite level. Prerequisite: MTE 1,2, \& 3. Lecture 2 hours per week.

## HIM 226 Legal Aspects Of Health Record Documentation (2 CR.)

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. ENF 2 requisite level. Lecture 2 hours per week.

## HIM 229 Performance Improvement In Health Care Settings (2 CR.)

Focuses on concepts of facility wide performance improvement, resource management and risk management. Applies tools for data collection and analysis. ENF 2 requisite level. Lecture I hour. Laboratory 2 hours. Total 3 hours per week.

HIM 230 Information Systems And Technology In Health Care (3 CR.)
Explores computer technology and system application in health care. Introduces the information systems life cycle. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

HIM 231 Health Record Applications I (3 CR.)
Uses an integrated approach to practicing health record skills in a simulated clinical environment. Emphasizes the use of the microcomputer in accomplishing problem-solving tasks. Prerequisite HIM 130. Laboratory 6 hours per week.

## HIM 233 Electronic Health Records Management (3 CR.)

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. Prerequisites: HIM 130 and 230 . Lecture 3 hours per week.

## HIM 249 Supervision And Management Practices (3 CR.)

Introduces supervision and management principles with emphasis on the application of these principles in the health information setting. Lecture 3 hours per week.

HIM 251-252 Clinical Practice I \& II (3 CR.)(3 CR.)
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. Laboratory 6 hours per week.

## HIM 253 Health Records Coding (4 CR.)

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. ENF 2 requisite level. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-7 hours per week.

## HIM 254 Advanced Coding And Reimbursement (4CR.)

Stresses advanced coding skills through practical exercises using actual medical records. Introduces CPT-4 coding system and guidelines for out-patient/ ambulatory surgery coding. Introduces prospective payment system and its integration with ICD-9-CM coding. Prerequisite: HIM 111 \& HIM 253 or instructor permission.

HIM 260 Pharmacology For Health Information Technology (2 CR.)
Emphasizes general pharmacology and pharmacologic therapies for Health Information professionals; covers general principles of drug actions/ reactions, side effects, mechanism of action and contraindications of medications and the major drug classes, specific agents within each class. Lecture 2 hours per week.

HIM 265 Facility Based Medical Coding (3 CR.)
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 payments systems (in and out of the facility setting) APC and DRG assignment. ENF 2 requisite level. Lecture 3 hours per week.

## HIM 280 HIM Capstone (1 CR.)

Integrates and applies knowledge and skills learned in prior HIM courses, focusing on those required to prepare for national certification in American Health Information Management Association's Domains, Subdomains and Tasks. Includes a capstone project in which students apply principles of good practice in health information management. Lecture 1 hour per week.

## HISTORY (HIS)

HIS 101-102 History Of Western Civilization I-II (3 CR.) (3 CR.)
Examines the development of western civilization from ancient times to the present. The first semester ends with the seventeenth century; the second semester continues through modern times. ENF 3 requisite level. Lecture 3 hours per week.

HIS 111 History Of World Civilization I (3 CR.)
Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Part I of II. ENF 3 requisite level. Lecture 3 hours per week.

HIS 112 History Of World Civilization II (3 CR.) Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Part II of II. ENF 3 requisite level. Lecture 3 hours per week.

HIS 121-122 United States History I-II (3 CR.) (3 CR.)
Surveys United States history from its beginning to the present. ENF 3 requisite level. Lecture 3 hours per week. May be taken out of sequence.

HIS 127 Women In American History (3 CR.)
Studies the role of women and attitudes toward women in American society from colonial times to the present. Lecture 3 hours per week.

## HIS 205 Local History (3 CR.)

Studies the history of the local community and/or region. ENF 3 requisite level; or division approval. Lecture 3 hours per week.

## HIS 225-226 Topics In European History I-II (3

 CR.)(3 CR.)Examines selected topics in the history of Europe from ancient times to the present. ENF 3 requisite level. Lecture 3 hours per week.

## HIS 231 History Of Latin American Civilizations

 I (3 CR.)Examines Latin American civilizations from preColumbian origins to the present. Part I of II. Lecture 3 hours per week.

HIS 262 United States History In Film (3 CR.)
Examines selected topics in the United States history which shaped the American experience, presented in film. Lecture 3 hours per week. ENF 3 requisite level. HIS 121 or 122 preferred or instructor's permission. Lecture 3 hours per week.

## HIS 267 The Second World War (3 CR.)

Examines causes and consequences of the Second World War and will include the rise of totalitarianism, American neutrality, military developments, the home fronts, diplomacy, and the decision to use the atomic bomb. ENF 3 requisite level. Lecture 3 hours per week.

## HIS 269 Civil War And Reconstruction (3 CR.)

Studies factors that led to the division between the States. Examines the war, the home fronts, and the era of Reconstruction. ENF 3 requisite level. Lecture 3 hours per week.

## HIS 270 American In The Gilded Age (3 CR.)

Studies in detail American history during the years from 1870-1900 - The Gilded Age, emphasizing the relationships between various aspects of American life and identifying themes that helped define the era. ENF 3 requisite level. Lecture 3 hours per week.

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## HIS 281 History Of Virginia I (3 CR.)

Examines the cultural, political, and economic history of the Commonwealth from its beginning to the present. Part I of II. Lecture 2 hours per week.
Horticulture (HRT)

## HRT 115 Plant Propagation (3 CR.)

Teaches principles and practices of sexual and asexual methods. Examines commercial and home practices. Provides experience in techniques using seed-spores, cuttings, grafting, budding, layering and division. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## HRT 126 Home Landscaping (3 CR.)

Studies current approaches to improving home landscapes. Emphasizes planning, proper implementation, and methods of caring for the landscape. ENF 2 requisite level. Lecture 3 hours per week.

## HRT 137 Environmental Factors In Plant Growth (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## HRT 225 Nursery And Garden Center Management (3 CR.)

Discusses aspects of nursery management, including culture, plant handling, facilities layout, and business management. Discusses aspects of garden center management, including planning and layout, purchasing, product selection, marketing, merchandising, and display. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## HRT 226 Greenhouse Management (3 CR.)

Discusses the theoretical and applied practices of managing a greenhouse facility. Emphasizes greenhouse construction and design, environmental control, energy conservation, and related topics. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## HRT 269 Professional Turf Care (3 CR.)

Discusses careers in the turf industry. Stresses turf grass identification, selection, culture, propagation, and pest control from a commercial standpoint. Surveys turf care operations and use of common equipment. ENF 2 requisite. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## HUMANITIES (HUM)

HUM 100 Survey Of The Humanities (3 CR.)
Introduces the humanities through the art, literature, music and philosophy of various cultures and historical periods. ENF 3 requisite level. Lecture 3 hours per week.

HUM 111-112 Great Books I-II (3 CR.)(3 CR.)
Introduces selected great works of philosophy and literature, with emphasis on close analysis of the text. Lecture 3 hours per week. Prerequisite: placement recommendation for ENF 3 requisite level. May be taken out of sequence.

## HUM 153 Introduction To Appalachian Studies (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours. Total 3 hours per week.

HUM 202 Survey Of Western Culture II (3 CR.) Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Renaissance, Baroque, Enlightenment, Romantic, and Modern. Reading and writing level requisite ENF 3. Lecture 3 hours per week.

## HUM 212 Survey Of American Culture II (3 CR.)

Examines elements of our national culture as they evolved from the first European explorations through colonization and independence to the present day. Part II of II. Reading and writing level requisite ENF 3. Lecture 3 hours per week.

## HUM 218 Survey Of Horror (3 CR.)

Surveys and analyzes the horror genre, focusing on the psychological, anthropological, and historical background of monsters. Acquaints students with recurring horror themes in literature, art, and popular culture from around the world. Reading and writing level requisite ENF 3. Lecture 3 hours per week.

## HUM 260 Survey Of Twentieth-Century Culture ( 3 CR.)

Explores literature, visual arts, philosophy, music, and history of our time from an interdisciplinary perspective. ENF 3 requisite level. Lecture 3 hours per week.

## INDUSTRIAL ENGINEERING TECHNOLOGY (IND)

IND 101-102 Quality Assurance Technology I-II (3 CR.)(3 CR.)
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. ENF 2 requisite level. Lecture 3 hours per week.

## IND 106 Industrial Engineering Technology (3 CR.)

Introduces basic skills required for a career in industrial engineering technology. May include basic statistics for engineering technicians, the SI system, graphic analysis, and careers as an engineering technician. Lecture 3 hours per week.

IND 108 Technical Computer Applications (3 CR.) Develops keyboarding proficiency for technology application and word processing as applied to technology. Presents an introduction to disk operating systems as related to technical applications. Includes demonstrations of selected technical topics such as CAD, CNC, Graphic illustration I/Os involving PLCs, telecommunications (modems), and process control. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## IND 125 Installation And Preventive Maintenance (3 CR.)

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. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## IND 126 Maintenance Scheduling And Planning

 (2 CR.)Studies organization of a maintenance department including planning, schedule, budgets, training, work measurement systems, labor standards, and preventive maintenance. Lecture 2 hours per week.

## IND 137 Team Concepts And Problem Solving (3 CR.)

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 3 hours per week.

## IND 160 Introduction To Robotics (3 CR.)

Studies evolution and history of robotics with an emphasis on automated and flexible manufacturing. Presents advantages and limitations of present robot systems. ENF 2 requisite level. Lecture 3 hours per week.

## IND 165 Principles Of Industrial Technology I (4 CR.)

Introduces principle concepts of technology involving mechanical, fluid, electrical, and thermal power as they relate to force, work, and rate. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

IND 190 Coordinated Internship In Industrial Technology (3 CR.)
Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college. Credit/practice ration not to exceed 1:5 hours. May be repeated for credit.

## IND 235 Statistical Quality Control (3 CR.)

Gives overview of the quality control function within industry. May include the organization, cost, and techniques of quality control Emphasizes essentials and applications of statistics in the quality control function. ENF 2 requisite. Lecture 3 hours per week.

## IND 250 Introduction To Basic Computer Integrated Manufacturing (3 CR.)

Presents the basic principles used in the design and implementation in a computer integrated manufacturing system. Emphasizes team concept and all aspects of a computer integrated manufacturing system to include the following: Robotics, Conveyor Control, Machine Center, Statistical Quality Control, and Computer Integrated Manufacturing. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## INSURANCE (INS) <br> INS 130 Principles Of Insurance (3 CR.)

Presents the basic concepts and history of the insurance industry. Includes the types of insurance, how they are regulated, financial performance measures, marketing, underwriting, claims, contracts, property loss exposures, liability loss exposures and risk transfer and management. Examines state's insurance laws and regulations. Lecture 3 hours. Total 3 hours per week.

## INS 262 Personal Insurance (3 CR.)

Presents an overview of personal insurance. Emphasis is on automobile, recreational vehicles, homeowners, personal property and personal liability. Provides a comprehensive review of personal insurance issues and planning. Lecture 3 hours per week.

## INTERPRETER EDUCATION (INT)

INT 107 Translation Skills (3 CR.)
Further develops fundamental skills needed for the task of interpreting Targets comprehending source language (either ASL or English), transferring content into memory store (breaking from original form), restructuring into target language, maintaining message equivalence, conveying implicit and inferred information, and applying appropriate discourse structure. Review Process Model of interpreting, and uses it to analyze translations. Further develops feedback skills essential to the team interpreting process. Prerequisite: INT 105. Lecture 3 hours per week.

## INT 130 Interpeting: An Introduction To The Profession (3 CR.)

Introduces basic principles and practices of interpreting, focusing on the history of the profession, logistics of interpreting situations, regulatory and legislative issues, resources, and the Code of Ethics. Describes the state quality assurance screening and national certification exam systems, including test procedures. ENF 2 requisite level. Lecture 3 hours per week.

INT 133 ASL-T0-English Interpretation I (3-4 CR.) Begins consecutively interpreting monologues from the source language (ASL) to the target language (English). Watch entire ASL monologues process them, analyze them, then choose appropriate English to match the message. Eventually interpret the monologues into English. Puts interpreting theory into practice in a lab environment. Conducts research in the field of interpretation. Develops team interpreting techniques. Interacts with consumers of ASL-English interpretation. Prerequisite: INT 107. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

## INT 141 Transliterating I (3 CR.)

Studies the skills required to transmit spoken English into a manual code for English or an interpreting product with more obvious English influences, and vice versa. Introduces a variety of manual codes and their relationship to American Sign Language and Contact Signing. Prerequisite: INT 107. Lecture 3 hours per week.

## INT 235 Interpreting In The Educational

 Setting (3 CR.)Examines the role, responsibilities, and communication techniques of the educational setting. Provides information on the nature and needs of the deaf student and methods used in working with students who are Deaf and hard of hearing. Describes various communication systems used for a variety of educational environments. Prerequisites: ASL 102 and INT 130. Lecture 3 hours per week.

## INT 250 Dialogic Interpretation I (3 CR.)

Apply interpreting fundamentals. Interpret dialogs be- tween spoken English and ASL users. Analyze interpretations by using a Process Model of Interpreting. Conduct research. Practice team interpreting skills in an interactive interpreting environment. Prepare for the interactive nature of standard interpreting evaluations. Prerequisites: INT 233 and INT 234. Lecture 3 hours week.

## INFORMATION TECHNOLOGY DATABASE (ITD) <br> ITD 110 Web Page Design I (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

ITD 134 PL/SQL Programming (3 CR.)
Presents a working introduction to PL/SQL programming within the Oracle RDBMS environment. Includes PL/SQL fundamentals of block program structure, variables, cursors and exceptions, and creation of program units of procedures, functions, triggers and packages. ENF 3 requisite level. Lecture 3 hours per week.

## ITD 210 Web Page Design II (3 CR.)

Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Prerequisite: ITD 110 and ENF 2. Lecture 3 hours per week.

## INFORMATION TECHNOLOGY ESSENTIALS (ITE) <br> ITE 100 Introduction To Information Systems (3 CR.)

Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. Provides discussion about available hardware and software as well as their application. ENF 2 requisite level. Lecture 3 hours per week.

## ITE 115 Introduction To Computer Applications And Concepts (3 CR.)

Covers computer concepts and internet skills, and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills. ENF 2 requisite level. Recommended prerequisite keyboarding skills. Lecture 3 hours per week.

## ITE 119 Information Literacy (3 CR.)

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. Lecture 3 hours per week.

## ITE 127 Microcomputer Software: Beginning Windows (2 CR.)

Imparts first-time users with sufficient information to make practical use of the Windows software package. Presents the basics of the features and applications included in the Windows operating system package. ENF 2 requisite. Lecture 2 hours per week.

## ITE 130 Introduction To Internet Services (3 CR.)

Provides students with a working knowledge of Internet terminology and services including e-mail, WWW browsing, search engines, ftp, file compression, and other services using a variety of software packages. Provides instruction for basic web page construction. ENF 2 requisite level. Lecture 3 hours per week.

## ITE 131 Survey Of Internet Services (1 CR.)

Introduces students to basic Internet terminology and services including e-mail, WWW browsing, search engines, ftp telnet, and other services. ENF 2 requisite level. Lecture 1 hour per week.

## ITE 140 Spreadsheet Software (3 CR.)

Covers the use of spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages, multiple sheets, charts, and macros. Topics include type and edit text in a cell, enter data on multiple worksheets, work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. Covers MOS Excel objectives. ENF 2 requisite level. Lecture 3 hours per week.

## ITE 141 Microcomputer Software: Spreadsheets (2 CR.)

Gives first-time users sufficient information to make practical use of spreadsheet software using the basics of building spreadsheets. ENF 2 requisite level.

ITE 150 Desktop Database Software (3 CR.)
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. Covers MOS Access certification objectives. ENF 2 requisite level. Lecture 3 hours per week.

## ITE 170 Multimedia Software (3 CR.)

Explores technical fundamentals of creating multimedia projects with related hardware and software. Students will learn to manage resources required for multimedia production and evaluation and techniques for selection of graphics and multimedia software. ENF 2 requisite level. Lecture 3 hours per week.

ITE 182 User Support/Help Desk Principles (3 CR.) Introduces a variety of tools and techniques that are used to provide user support in help desk operations. Includes help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations, and software needs analysis, facilities management, and other topics related to end user support. ENF 2 requisite level. Lecture 3 hours per week.

ITE 190 Academy Internship Programming (1 CR.) Supervises on-the-job training in selected business, industrial, or service firms coordinated by the College. ENF 2 requisite level.

## ITE 215 Advanced Computer Applications And Integration (3 CR.)

Incorporates advanced computer concepts including the integration of a software suite. Prerequisite ITE 115. Lecture 3 hours per week.

ITE 270 Advanced Multimedia Development (3 CR.) Refines multimedia skills, focusing on project development using digital media; video clips, still images, and audio (sounds, music, and narration). Prerequisite: ITE 170. Lecture 3 hours per week.

## ITE 290 Internship In ITE (3 CR.)

Supervises on-the-job training in selected business, industrial, or service firms coordinated by the college. ENG 111 requisite level. 3 hours per week.

## ITE 298 Seminar \& Project (3 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. ENF 2 requisite. 3 hours per week.

## INFORMATION TECHNOLOGY <br> NETWORKING (ITN)

ITN 101 Introduction To Network Concepts (3 CR.) 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. ENF 2 requisite level. Lecture 3 hours per week.

## ITN 107 Personal Computer Hardware And Troubleshooting (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

ITN 110 Client Operating System (XPPRO) (3 CR.) Introduces an overview of instruction in installation, configuration, administration, and troubleshooting of Windows 2000 Professional as a desktop operating system in a networked data communications environment. ENF 2 requisite level. Lecture 3 hours per week.

ITN 111 Server Administration (Server 2008) (3 CR.) Covers basic instruction in various network protocols, name resolution services, remote access, security and print installation, configuration, administration, monitoring, and troubleshooting of Windows 2000 Server in an Active Directory domain environment. ENF 2 requisite level. Lecture 3 hours per week.

## ITN 112 Network Infrastructure (Server 2008)

 (3 CR.)Provides extensive instruction for the technical knowledge required for installation, configuration, administration, monitoring, and troubleshooting of Windows 2000 Server services such as NDS, DHCP, WINS, RRAS, NAT, and Certificate Authority to support the network infrastructure. ENF 2 requisite level. Prerequisites: ITN 154, ITN 155, ITN 156, ITN 111. Lecture 3 hours per week.

ITN 113 Active Directory (Server 2008) (3 CR.)
Emphasizes instruction in installation, configuration, and administration, monitoring, and troubleshooting of Windows 2000 Active Directory components, DNS, Group Policy objects, RIS, and security. ENF 2 requisite level. Lecture 3 hours per week.

ITN 154 Networking Fundamentals - Cisco (4 CR.)
Provides introduction to networking using the OSI reference model. Includes data encapsulation, TCP/ IP suite, routing, IP addressing, and structured cabling design and implementation. ENF 2 requisite level. Lecture 4 hours per week.

## ITN 155 Switching, Wireless, And Wan <br> Technologies (ICND2-Cisco) (4 CR.)

Features an introduction to basic router configuration using Cisco IOS software. Includes system components, interface configuration, IP network design, troubleshooting techniques, configuration and verification of IP addresses, and router protocols. Prerequisite: ITN 154. ENF 2 requisite level. Lecture 4 hours per week.

ITN 156 Basic Switching And Routing - Cisco (4 CR.) Centers instruction in LAN segmentation using bridges, routers, and switches. Includes fast Ethernet, access lists, routing protocols, spanning tree protocol, virtual LANS and network management. Prerequisites: ITN 154, ITN 155. ENF 2 requisite level. Lecture 4 hours per week.

ITN 157 WAN Technologies - Cisco (4 CR.)
Concentrates on an introduction to Wide Area Networking (WANs). Includes WAN design, LAPB, Frame Relay, ISDN, HDLC, and PPP. Prerequisites: ITN 154, ITN 155, ITN 156. ENF 2 requisite level. Lecture 4 hours per week.

## ITN 171 Unix 1 (3 CR.)

Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell. ENF 2 requisite level. Lecture 3 hours per week.

ITN 190 Academy Internship - Networking (1 CR.) Supervises on-the-job training in selected business, industrial, or service firms coordinated by the College. ENF 2 requisite level.

## ITN 198 A+ Certification (4 CR.)

Teaches procedures for isolating and correcting problems in computers and computer-related hardware. Emphasizes operational concepts, use of diagnostic software and troubleshooting equipment.

ITN 210 Windows 2000-DSID-directory services infrastructure design (3 CR.)
Presents the knowledge and skills necessary to analyze business requirements and design a directory service architecture that includes: unified directory services, such as Active Directory and Windows NT domains; connectivity between and within systems, systems
components, and applications; and data replication, such as directory replication and database replication. ENF 2 requisite level. Lecture 3 hours per week.

## ITN 211 Windows 2000 Network Security Design (NSD) (3 CR.)

Designing security framework for small, medium, and enterprise networks using Microsoft Windows 2000 technologies. Provides secure access to local network, secure access to remote users and remote offices, secure access between private and public networks and secure access to partners. ENF 2 requisite level. Lecture 3 hours per week.

## ITN 214 Messaging Server Administration (Exchange 2007) (3 CR.)

Provides instruction in planning, creating, configuring, administering, maintaining, optimizing, and troubleshooting Windows 2000 Exchange Server. ENF 2 requisite level. Lecture 3 hours per week.

ITN 215 Enterprise Administration (NID) (3 CR.)
Provides instruction in analysis and design of business requirements for a network infrastructure, including network topology, routing, IP addressing, WINS, DNS, VPN remote access and telephony in an enterprise environment. ENF 2 requisite level. Lecture 3 hours per week.

ITN 242 Windows Microsoft Exchange 2003 Server (ES03) (3-4 CR.)
Incorporates instruction on how to implement, manage, and troubleshoot an Exchange Server 2003 organization. Lecture 3-4 hours per week.

## ITN 298 Seminar And Project (3 CR.)

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. Requisite: ENG 111. Lecture 3 hours per week.

## INFORMATION TECHNOLOGY <br> PROGRAMMING (ITP) <br> ITP 100 Software Design (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## ITP 112 Visual Basic.Net I (3 CR.)

Concentrates instruction in fundamentals of objectoriented programming using Visual Basic. NET and the .NET framework. Course content emphasizes
program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. ENF 2 requisite level.

## ITP 120 Java Programming I (3 CR.)

Entails instruction in fundamentals of object-oriented programming using JAVA. Emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Prerequisite: ITP 100. ENF 2 requisite level. Lecture 3 hours per week.

ITP $132 \mathrm{C}++$ Programming I (3 CR.)
Centers instruction in fundamentals of object-oriented programming and design using $\mathrm{C}++$. Emphasizes program construction, algorithm development, coding, debugging, and documentation of $\mathrm{C}++$ applications. Prerequisite: ITP 100. ENF 2 requisite level. Lecture 3 hours per week.

## ITP 140 Client Side Scripting (3 CR.)

Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). ENF 2 requisite level. Lecture 3 hours per week.

## ITP 193 Studies In PHP/MYSQL (3 CR.)

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 serverside scripting languages along with auxiliary tools needed for complete applications. Prerequisites: ITD 110: Web Page Design I. Lecture 3 hours per week.

ITP 214 Windows Mobile Development (3 CR.)
Provides skills for creating mobile enterprise solutions by using the Smart Device Extensions for Microsoft Visual Studio.NET and the Microsoft.NET Compact Framework for wireless devices. Develops systems including mobile phones and a range of rich hand-held devices such as PDAs using applications utilizing the .NET Compact Framework. Covers Enterprise business applications and game applications. ENG 111 or 115 requisite level. Lecture 3-4 hours per week.

## ITP 215 XML Web Services (3 CR.)

Presents the techniques for developing and implementing Web-based applications with Web forms, ASP.NET, and the Microsoft. NET Framework. Includes Window services.NET remote objects, XML Web services, security, and consuming and manipulating Web data. ENG 111 requisite level. Prerequisites: ITD 110 and ITP 140. Lecture 3 hours per week.

## ITP 220 Java Programming II (3 CR.)

Imparts instruction in application of advanced ob-ject-oriented techniques to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking, and threads. Prerequisite: ITP 120. Lecture 3 hours per week.

## ITP 232 C++ Programming II (3 CR.)

Presents in-depth instruction of advanced objectoriented techniques for data structures using $\mathrm{C}++$. Prerequisite: ITP 132. Lecture 3 hours per week.

## ITP 240 Server Side Programming (3 CR.)

Centers around instruction in fundamentals of Internet application design, development, and deployment. Includes implementation of server component models, security, and database connectivity using server-side programming. Prerequisite: Recommended ITP 140 and ITD 110. ENF 2 requisite level. Lecture 3 hours per week.

## ITP 251 Systems Analysis And Design (3 CR.)

Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Covers methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content. Software applications may be used to enhance student skills. ENF 3 requisite level. Lecture 3 hours per week.

## ITP 298 Capstone/Project Integration (3-5 CR.)

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. ENG 111 requisite level. Lecture 3-5 hours per week.

## LEGAL ADMINISTRATION (LGL)

LGL 110 Introduction To Law And The Legal Assistant (3 CR.)
Introduces various areas of law in which a legal assistant will be working. Includes intense study of court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, and the role of the legal assistant and other areas of interest. ENF 2 requisite level. Lecture 3 hours per week.

## LGL 115 Real Estate Law For Legal Assistants (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

LGL 117 Family Law (3 CR.)
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 ante nuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws. ENF 2 requisite level. Lecture 3 hours per week.

## LGL 120 Legal Terminology (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

## LGL 125 Legal Research (3 CR.)

Provides an understanding of various components of a law library, and emphasizes research skills through the use of digests, encyclopedias, reporter systems, codes, Shepard's Citations, ALR, and other research tools. May include overview of computer applications and writing projects. Lecture 3 hours per week. ENF 3 requisite level.

## LGL 126 Legal Writing (3 CR.)

Studies proper preparation of various legal documents, including legal memoranda, letters, and pleadings. Involves practical applications. May include case and appellate briefs. Lecture 3 hours per week. Prerequisite: ENG 111 and LGL 125.

## LGL 216 Trial Preparation And Discovery Practice (3 CR.)

Studies the preparation of a trial notebook, pretrial orders, use of interrogatories, depositions and other discovery tools used in assembling evidence in preparation for trial or an administrative hearing. Prerequisite: ENG 111. Lecture 3 hours per week.

## LGL 218 Criminal Law (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours per week.

LGL 225 Estate Planning And Probate (3 CR.)
Introduces various devices used to plan an estate, including wills, trusts, joint ownership and insurance. Considers various plans in light of family situations and estate objectives. Focuses on practices involving administration of an estate including taxes and preparation of forms. ENF 3 requisite level. Lecture 3 hours per week.

## LGL 230 Legal Transactions (3 CR.)

Introduces commercial principles and practices and Uniform Commercial Code. Emphasizes contracts, warrants, title, consideration, performance, parties, subject matter and remedies for breach, torts, sales, negotiable instruments, consumer protection, insurance, wills and inheritance, bankruptcy and statute of limitations. ENG 111 requisite level. Lecture 3 hours per week.

## LGL 290 Cooperative Internship In Legal Assisting (3 CR.)

In order to apply legal assisting theory to practice, this cooperative venture will allow students to participate in onsite training in actual paralegal settings. ENG 111 requisite level. Variable hours per week.

## MARKETING (MKT)

MKT 100 Principles Of Marketing (3 CR.)
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. ENF 2 requisite level. Lecture 3 hours per week.

## MKT 110 Principles Of Selling (3 CR.)

Presents fundamental aspects of personal selling, sales, ethics, and selling methods. Emphasizes professional sales techniques. Examines organization necessary for a well-coordinated sales effort, including the training of sales personnel for maximum efficiency in selling and organization of the sales division within the business enterprise. Introduces sales management in planning, organizing, directing and controlling the total sales effort. ENF 3 requisite level. Lecture 3 hours per week.

## MKT 170 Customer Service (1 CR.)

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 1 hour per week.

## MKT 197 Marketing Cooperative (3 CR)

Supervises on-the-job-training in approved business, industrial and service firms coordinated by the college. 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. ENF 1 requisite level.

## MKT 216 Retail Organization And Management (3 CR.)

Examines the organization of the retail establishment to accomplish its goals in an effective and efficient manner. Includes study of site location, internal layout, store operations, and security. Examines the retailing mix, the buying or procurement process, pricing, and selling. Studies retail advertising, promotion, and publicity as a coordinated effort to increase store traffic. Lecture 3 hours per week.

MKT 260 Customer Service Management (3 CR.)
Examines the role of customer service in achieving a firm's long-term goals; discusses the basic principles of effective customer service; explores the tasks and responsibilities of a customer service manager. Includes such topics as purpose of customer service; establishment of customer service goals and policies; recruitment, selection and training of customer service employees; motivation techniques, empowering employees for better decision making; and evaluation of customer service employees and program. ENF 2 requisite level. Lecture 3 hours per week.

## MKT 270 Marketing Management (3 CR.)

Expands knowledge of marketing through case studies. Focuses on how marketing strategies are planned and utilized in the market place to accomplish the goals of the organization. Lecture 3 hours per week.

## MKT 282 Principles Of E-Commerce (3 CR.)

Studies on-line business strategies, and the hardware and software tools necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels and execution of marketing strategies. ENF 3 requisite level. Lecture 3 hours per week.

MKT 284 Social Media Marketing (3 CR.)
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 3 hours per week.

Mathematics Placement Based on Assessment Test Results

| View Test Credits online on your Degree Progress <br> Report If student has Test Credit or completion of |  |  |  |  |  |  | Student may enroll in: |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Prerequisite <br> MTE units | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Course \# | Course Name |
| $1-4$ | X | X | X | X |  |  |  |  |  | MTH 103 | Applied Technical Mathematics |
| $1-3$ | X | X | X |  |  |  |  |  |  | MTH 126 | Mathematics for Allied Health |
| $1-3$ | X | X | X |  |  |  |  |  |  | MTH 141 | Business Mathematics |
| $1-5$ | X | X | X | X | X |  |  |  |  | MTH 151 | Mathematics for the Liberal Arts I |
| $1-5$ | X | X | X | X | X |  |  |  |  | MTH 152 | Mathematics for the Liberal Arts II |
| $1-5$ | X | X | X | X | X |  |  |  |  | MTH 157 | Elementary Statistics |
| $1-9$ | X | X | X | X | X | X | X | X | X | MTH 163 | Precalculus I* |
| $1-9$ | X | X | X | X | X | X | X | X | X | MTH 273 | Calculus I* (and placement on the cal- <br> culus test or completion of MTH 164) |

*Student must have "C" in Algebra II and "C" in Geometry in high school or completion of MTH 6 for MTH 163, plus "C" in Trigonometry for MTH 273.

All required MTE units must be enrolled in and completed before the program math may be attempted.

## MATH ESSENTIALS (MTE)

MTE 1 Operations With Positive Fractions (1 CR.)
Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without the use of a calculator. Emphasizes applications and includes U. S. customary units of measure. Credit is not applicable toward graduation. Prerequisite: Qualifying placement score.

MTE 2 Operations With Positive Decimals And Percents (1 CR.)
Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U. S. customary and metric units of measure. Credit is not applicable toward graduation. Prerequisite(s): MTE 1 or qualifying placement score. Prerequisite: MTE 1 or qualifying placement score.

## MTE 3 Algebra Basics (1 CR.)

Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation. Prerequisite: MTE 1 and 2 or qualifying placement score.

MTE 4 First Degree Equations And Inequalities In One Variable (1 CR.)
Includes solving first degree equations and inequalities containing one variable, and using them to solve application problems. Emphasizes applications and
problem solving. Credit is not applicable toward graduation. Prerequisite: MTE 1, 2, and 3 or qualifying placement score.

## MTE 5 Linear Equations, Inequalities And Systems Of Linear Equations In Two Variables (1 CR.)

Includes finding the equation of a line, graphing linear equations and inequalities in two variables and solving systems of two linear equations. Emphasizes writing and graphing equations using the slope of the line and points on the line, and applications. Credit is not applicable toward graduation. Prerequisite: MTE $1,2,3$, and 4 or qualifying placement score.

## MTE 6 Exponents, Factoring And Polynomial Equations (1 CR.)

The student will learn to perform operations on exponential expressions and polynomials. Students will also learn techniques to factor polynomials and use these techniques to solve polynomial equations. Emphasis should be on learning all the different factoring methods, and solving application problems using polynomial equations. Credit is not applicable toward graduation. Prerequisite: MTE 1, 2, 3, 4, and 5 or qualifying placement score.

MTE 7 Rational Expressions And Equations (1 CR.) Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations.

Credit is not applicable toward graduation. Prerequisite: MTE $1,2,3,4,5$, and 6 or qualifying placement score.

MTE 8 Rational Exponents And Radicals (1 CR.) Includes simplifying radical expressions, using rational exponents, solving radical equations and solving applications using radical equations. Credit is not applicable toward graduation. Prerequisite: MTE 1, 2, $3,4,5,6$, and 7 or qualifying placement score.

## MTE 9 Functions, Quadratic Equations And

 Parabolas (1 CR.)Includes an introduction to functions in ordered pair, graph, and equation form. Also introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation. Prerequisite: MTE $1,2,3,4,5,6,7$, and 8 or qualifying placement score.

## MATHEMATICS (MTH) <br> MTH 6 Developmental Geometry (1-5 CR.)

Covers topics in Euclidean geometry including similarity and congruency, plane and solid figures, right triangles, parallel and perpendicular lines, constructions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. ENF 2 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, and 5. Credits not applicable toward graduation. Variable hours per week.

## MTH 103 Applied Technical Mathematics I (3 CR.)

Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Lecture 3 hours per week. Prerequisite: MTE 1,2,3 and or qualifying placement score.

## MTH 105-106 Survey Of Technical Mathematics I-II (2 CR.)(2 CR.)

Reviews arithmetic and introduces measurement, basic algebra, plane and solid geometry, and trigonometry. ENF 2 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, and 4. Lecture 2 hours per week. Prerequisite for MTH 106 is MTH 105.

## MTH 126 Mathematics For Allied Health (2 CR.)

Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. ENF 2 requisite level. Requisite: Test Credit or completion of MTE 1,2 , and 3 , and one unit of high school algebra with "C" or equivalent. Lecture 2 hours per week.

## MTH 141-142 Business Mathematics I-II (3 CR.)

 (3 CR.)Provides instruction, review, and drill in percentage, cash and trade discounts, markup, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. ENF 2 requisite level. Requisite: Test Credit or completion of MTE 1, 2, and 3. Lecture 3 hours per week. Prerequisite for MTH 142 is MTH 141.

## MTH 146 Introduction To Elementary Statistics (3 CR.)

Introduces the methods of statistics including sampling from normally distributed populations, estimation, regression, testing of hypotheses, point and interval estimation methods. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4 , and 5 . Lecture 3 hours per week.

## MTH 151 Mathematics For The Liberal Arts I (3 CR.)

Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, and 5. Lecture 3 hours per week.

## MTH 152 Mathematics For The Liberal Arts II (3 CR.)

Presents topics in functions, combinatorics, probability, statistics and algebraic systems. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, and 5. Lecture 3 hours per week. May be taken before MTH 151 .

## MTH 157 Elementary Statistics (3 CR.)

Presents elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data analysis. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, and 5. Lecture 3 hours per week.

## MTH 158 College Algebra (3 CR.)

Covers the structure of complex number systems, polynomials, rational expressions, graphing, systems of equations and inequalities and functions, quadratic and rational equations and inequalities. Departmental permission required. Lecture 3 hours per week. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, 5, 6, 7, 8, and 9 and a grade of "C" or better in high school Algebra II and Geometry.

MTH 163 Precalculus I (3 CR.)
Presents college algebra, matrices, and algebraic,
exponential, and logarithmic functions. Credit will not be awarded for both MTH 163 and 166. ENF 3 requisite level. Requisite: Test Credit or completion of MTE 1, 2, 3, 4, 5, 6, 7, 8, and 9 and a "C" in high school Algebra II and Geometry or equivalent. Lecture 3 hours per week.

## MTH 164 Precalculus II (3 CR.)

Presents trigonometry, analytic geometry, and sequences and series. Prerequisite: MTH 163. Lecture 3 hours per week.

## MTH 241 Statistics I (3 CR.)

Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. Prerequisites: MTH 163. Lecture 3 hours per week.

## MTH 242 Statistics II (3 CR.)

Continues the study of estimation and hypothesis testing with emphasis on correlation and regression, analysis of variance, chi-square tests, and non-parametric methods. Prerequisite: MTH 241. Lecture 3 hours per week.

## MTH 271 Applied Calculus I (3 CR.)

Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163. Lecture 3 hours per week.

## MTH 273 Calculus I (4 CR.)

Presents topics in differential calculus of one variable including the theory of limits, derivatives, differentials, definite and indefinite integrals and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. ENG 111 requisite level. Requisite: MTH 164 or MTE 1, 2, 3, 4, 5, 6, 7, 8 , and 9 and a grade of "C" or better in high school Trigonometry. Lecture 4 hours per week.

## MTH 274 Calculus II (4 CR.)

Covers vectors in three dimensions, definite integrals, methods of integration, indeterminate forms, partial differentiation, and multiple integrals. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 273. Lecture 4 hours per week.

## MTH 275 Multi-Variable Calculus And Linear Algebra (4 CR.)

Presents vector valued functions, partial derivatives, multiple integrals, matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, Eigen values, and Eigen vectors.

Designed for mathematical, physical and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

## MTH 277 Vector Calculus (4 CR.)

Presents vector valued functions, partial derivatives, multiple integrals, and topics from the calculus of vectors. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 279 Ordinary Differential Equations (4 CR.) Introduces ordinary differential equations. Includes first order differential equations, second and higher order ordinary differential equations with application. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

MTH 285 Linear Algebra (3 CR.)
Covers matrices, vector spaces, determinants, solutions of systems of linear equations, basis and dimension, Eigen values, and Eigen vectors. Designed for mathematical, physical and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

## MTH 286 Discrete Mathematics (4 CR.)

Presents topics in discrete mathematical structures which are basic tools used in computer science. Covers sets, Boolean algebra, counting methods, generating functions and recurrence relations, graph theory, trees, and an introduction to finite state automata. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 4 hours per week.

## MTH 287 Mathematical Structures (3 CR.)

Presents topics in mathematical structures of value to students majoring in Computer Science or other disciplines requiring programming skills. Covers logic, set theory, number theory, combinatorics, functions, relations, and graph theory. Prerequisite: MTH 166 or equivalent. Lecture 3 hours per week.

MTH 291 Differential Equations (3 CR.)
Introduces first order differential equations, linear differential equations, numerical methods, and applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 174 or equivalent. Lecture 3 hours per week.

MTH 292 Topics In Differential Equations (3 CR.) Presents power series solutions, Fourier series, Laplace transform, partial differential equations, and boundary value problems. Designed for mathemati-
cal, physical, and engineering science programs.
Prerequisite: MTH 291 or equivalent. Lecture 3 hours per week.

MECHANICAL ENGINEERING TECHNOLOGY (MEC)
MEC 101 Introduction To Engineering Technology I (2 CR.)
Introduces engineering technology. Provides historical background. Covers such topics as professional ethics; problem solving techniques involving forces, structures, materials, fluids, energy, and electricity and U.S. Customary and S.I. units, and unit conversions. Part I of II. ENF 2 requisite level. Lecture 2 hours per week.

## MEC 113 Materials And Processes Of Industry (3-4 CR.)

Studies engineering materials and accompanying industrial manufacturing processes. Investigates nature of materials structure and properties from a design standpoint. Analyzes the effects of various processes on materials, and the processes themselves. Includes machining, casting, forming, molding, hot/ cold working, chipless machining, and welding. Addresses quality assurance and inspection procedures. Lecture 3-4 hours per week.

## MEC 118 Automated Manufacturing Technology (3 CR.)

Studies numerical control systems. Includes application of numerical control to standard machine tools, numerical control systems, NC coordinate systems, APT systems, two-dimensional machine process, three-dimensional machine process, flexible manufacturing role of robotics in automated manufacturing. ENF 2 requisite level. Lecture 2 hours. Laboratory 3 hours. Total 4 hours per week.

## MEC 120 Principles Of Machine Technology (2-3 CR.)

Studies fundamental machine operations and practices, including layout, measuring devices, hand tools, drilling, reaming, turning between centers, cutting tapers and threads, and milling; fabrication of mechanical parts on drill press, lathe and mill. ENF 2 requisite level. Lecture 2 hours. Laboratory $0-3$ hours. Total 5 hours per week.

## MEC 122 Desktop Manufacturing Technologies (3 CR.)

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 2 hours. Lab 3 hours. Total 5 hours per week.

MEC 148 Industrial Pipefitting (3 CR.)
Covers the fundamentals of industrial piping installation, components, and layout. Considers the types of pipe and fabrication of piping systems, as well as the methods used to connect them. ENF 2 requisite level. Lecture 3 hours per week.

MEC 155 Mechanisms (2 CR.)
Studies the purpose and actions of cams, gear trains, levers, and other mechanical devices used to transmit control. Focuses on motions, linkages, velocities, and acceleration of points within a link mechanism; layout method for designing cams and gear grain. Requires preparation of weekly laboratory reports. ENF 2 requisite level. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

MEC 205 Piping And Auxiliary Systems (3 CR.) 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. ENF 2 requisite level. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## MEC 266 Fluid Mechanics (3-4 CR.)

Teaches theory of hydraulic and pneumatic circuits including motors, controls, actuators, valves, plumbing, accumulators, reservoirs, pumps, compressors, and filters. ENF 2 requisite level. Lecture 3-4 hours per week.

## MEDICAL LABORATORY (MDL) <br> MDL 100 Introduction To Medical Laboratory Technology (2 CR.)

Introduces the basic principles, techniques, and vocabulary applicable to all phases of medical laboratory technology. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

## MDL 105 Phlebotomy (3-4 CR.)

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. ENF 2 requisite level. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

MDL 106 Clinical Phlebotomy (4 CR.)
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. ENF 2 requisite level. Lecture 2 hours. Laboratory 6 hours. Total 8 hours
per week. Students must complete the following prior to enrolling: Proof \& record of three Hepatitis B vaccinations. 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 varicella vaccinations OR proof of immunity by titer. Proof \& record of DTP (diphtheria, tetanus, pertussis) vaccinations. Copy of BLS for Healthcare Provider (CPR) certification card, back and front. Passing of criminal and sexual background checks. Passing of drug testing.

## MDL 126 Clinical Immunohematology/

 Immunology I (4 CR.)Incorporates basic principles of antigen and antibody reactions included in blood grouping and typing, compatibility testing, and serological procedure. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

## MDL 127 Hematology (3 CR.)

Teaches various blood components, how they are obtained and methods of examination. Includes erythrocyte, leukocyte and platelet counts, hemoglobin and hematocrit determinations, normal and abnormal smears. Introduces coagulation screening studies. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

## MDL 130 Basic Clinical Microbiology (3 CR.)

Studies classification, theories, techniques, and methods used in basic bacteriology, parasitology, and mycology. Emphasizes routine identification. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## MDL 225 Clinical Hematology II (3-4 CR.)

Teaches advanced study of blood to include coagulation, abnormal bloody formation, and changes seen in various diseases. Lecture 2 hours. Laboratory 3-6 hours. Total 5-8 hours per week.

## MDL 227 Clinical Immunohematology/

Immunology II (3 CR.)
Emphasizes ability to apply theories and procedures utilized in immunohematology for routine transfusion and donor services. Correlates theories with practical application in order to assess cellular and immune mechanisms in specific disease states. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

MDL 240 Clinical Microscopy (2-3 CR.)
Studies theories, principles, and interpretation of test results for urine and body fluids associated with normal and abnormal states. Lecture 1-2 hours. Laboratory 3 hours. Total 4-5 hours per week.

## MDL 252 Clinical Microbiology II (3-4 CR.)

Teaches handling, isolation, and identification of pathogenic microorganisms. Emphasizes clinical techniques of bacteriology, mycology, parasitology and virology. Lecture 1-2 hours. Laboratory 3-6 hours. Total 4-8 hours per week.

## MDL 261-262 Clinical Chemistry And Instrumentation I-II (4-5 CR.)(4-5 CR.)

Introduces methods of performing biochemical analysis of clinical specimens. Teaches instrumentation involved in a clinical chemistry laboratory, quality control, and the ability to recognize technical problems. Lecture 3 hours. Laboratory 3-6 hours. Total 6-9 hours per week.

## MDL 263 Clinical Chemistry And Instrumentation III (3 CR.)

Prerequisite MDL 262. Emphasizes application of chemical theories and principles, performance of routine and special chemistries on various types of instrumentation, evaluation of quality control programs, and association of test results with clinical significance. Lecture 1 hour; Laboratory 6 hours; Total 7 hours/week.

## MDL 275 Clinical Hematology III (3 CR.)

Prerequisite MDL 225. Focuses on maintenance and troubleshooting of automated equipment, on evaluation of quality control programs, on blood dyscrasias, utilizing special stains and bone marrow studies, and on specialized studies for evaluating problems of hemostasis. Lecture 1 hour. Laboratory 6 hours. Total 7 hours/week.

## MDL 279 Clinical Microbiology III (2 CR.)

Prerequisite MDL 252 . Stresses ability of the student to culture and identify pathogenic and nonpathogenic bacterial and mycotic agents, to identify parasites, and to associate microorganisms with clinical symptoms. Lecture: 1 hour. Laboratory: 3 hours. Total 4 hours/week.

## MUSIC (MUS)

MUS 121-122 Music Appreciation I-II (3 CR.)(3 CR.) Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. ENF 3 requisite level. Lecture 3 hours per week.

MUS 133 Recording Systems Services I (3 CR.)
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. Prerequisite divisional approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 139 Shape Note Singing ( 3 CR.)
Introduces the student to the history and performance of shape note singing in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## MUS 150 Old Time String Band (3 CR.)

Introduces the student to the history and performance of traditional old time string band music of the central Appalachian region with topics on musicians, instrumentation, regional influences, and tunes. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 167 Beginning Appalachian Dulcimer (3 CR.) Introduces the student to the history of the Appalachian dulcimer, regional musicians, influences, and performance with emphasis on the old time style found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 168 Beginning Clawhammer Banjo (3 CR.) Introduces the student to the history of the banjo, regional musicians, influences, and performance with emphasis on the old time, claw hammer style found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## MUS 169 Beginning Fiddle (3 CR.)

Introduces the student to the history of fiddle, regional musicians, influences, and performance with emphasis on the old time styles found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 170 Beginning Rhythm Guitar (3 CR.)
Introduces the student to the history of rhythm guitar, regional musicians, influences, and performance with emphasis on the old time style found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 171 Beginning Mandolin (3 CR.) Introduces the student to the history of the mandolin, regional musicians, influences, and performance with emphasis on the old time styles found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MUS 172 Beginning Upright Bass (3 CR.)
Introduces the student to the history of the upright bass, regional musicians, influences, and performance with emphasis on the old time style found in the central Appalachian region. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## MUS 218 Traditional Music And Musicians Of Central Appalachia (3 CR.)

Introduces students to the traditional music and musicians, historical and contemporary, of the central Appalachian region. Explore influences of the music of various cultures, both within and outside the region, on the musical styles. Lecture 3 hours. Total 3 hours per week.

MUS 225 The History Of Jazz (3 CR.)
Studies the underlying elements of jazz, concentrating on its cultural and historical development from earliest stages to present. No previous knowledge of music is required. Lecture 3 hours per week.

MUS 290 Internship In Recording (3 CR.)
Supervised on-the-job training in a recording studio coordinated by the college. Total 4 hours per week.

## NATURAL SCIENCE (NAS) NAS 106 Conservation Of Natural Resources (3 CR.)

Describes the management of natural resources, balance of nature, and the human impact on the environment. ENF 2 requisite level. Lecture 3 hours per week.

## NAS 125 Meteorology (4 CR.)

Presents a non- technical survey of fundamentals meteorology. Focuses on the effects of weather and climate on humans and their activities. Serves for endorsement or recertification of earth science teachers. ENF 3 requisite. Lecture 3 hours per week. Recitation and laboratory 2 hours per week. Total 5 hours per week.

NAS 131-132 Astronomy I-II (4 CR.)(4 CR.)
Studies the major and minor bodies of the solar system, stars and nebulae of the Milky Way, and extragalactic objects. Examines life and death of stars, origin of the universe, history of astronomy, and instruments and techniques of observation. ENF 3 requisite. Lecture 3 hours per week. Recitation and the laboratory 3 hours per week. Total 6 hours per week.

## NAS 171-172 Human Anatomy And Physiology I-II (4 CR.)(4 CR.)

Presents the human organ systems and their functions as they relate to allied health science. Lecture

3 hours per week. Recitation and laboratory 3 hours per week. Total 6 hours per week.

## NAS 215 Man In His Environment (6 CR.)

Analyzes ecological and technological forces at work in today's world including air and water pollution, pesticides, and land use. ENF 111 requisite. Lecture 4 hours per week. Recitation and laboratory 6 hours per week. Total 10 hours per week.

## NURSING (NUR)

Prerequisite for all courses in this department is current enrollment in the Associate Degree Nursing Plan.

## NUR 105 Nursing Skills (2 CR.)

Prerequisites: MTH 126, ITE 119, ENG 111, SDV 100, and admission to the program. Develops nursing skills for the basic needs of individuals and introduces related theory. Includes assessment, personal care, activity/rest, sterile technique, wound care, ostomy care, catheterization, oxygen administration, infection control, suctioning, and medication administration. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

## NUR 108 Nursing Principles And Concepts I (5 CR.)

Prerequisites: MTH 126, ITE 119, ENG 111, SDV 100 , and admission to the program. Introduces principles of nursing, health and wellness concepts, and the nursing process. Identifies nursing strategies to meet the multidimensional needs of individuals. Includes math computational skills, basic computer instruction related to the delivery of nursing care, introduction to the profession of nursing, nursing process, documentation, basic needs related to integumentary system, teaching/learning, stress, psychosocial, safety, nourishment, elimination, oxygenation, circulation, rest, comfort, sensory, fluid and electrolyte, and mobility needs in adult clients. Also, care of the pre- and post-operative client. Provides supervised learning experience in college nursing labs and/or cooperating agencies. Lecture 4 hours. Laboratory 3 hours. Total 7 hours per week.

## NUR 109 Nursing Principles And Concepts II (5 CR.)

Prerequisites: NUR 105, 108; BIO 141 or 231 and admission to the program. Focuses on nursing care of individuals and/or families experiencing alterations in health. Includes math computational skills, basic computer instruction related to the delivery of nursing care; immunological, gastrointestinal, musculoskeletal, oncological and diabetic disorders and
pre- and post-operative care in adult and pediatric clients. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 3 hours. Laboratory 6 hours. Total 9 hours per week.

## NUR 114 Geriatric Nursing (3 CR.)

Prerequisites: Acceptance into the nursing program, ENG 111, ITE 119, MTH 126, and SDV 100. Presents theoretical and clinical nursing aspects of the aging population. Includes the aging process, psychological aspects, common age-related disorders, pharmacologic aspects, care facilities, and relationships between elders and caregivers. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## NUR 115 LPN Transition (6 CR.)

Prerequisites: Acceptance to the LPN-to-RN Bridge program. Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. The course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Lecture 5 hours. Laboratory 3 hours. Total 8 hours per week. (THIS COURSE HAS BEEN APPROVED BY THE VICE CHANCELLOR AS AN EXCEPTION TO THE VARIABLE CREDIT POLICY).

## NUR 136 Principles Of Pharmacology I (1 CR.)

Prerequisites: Acceptance into the nursing program, MTH 126, ITE 119, ENG 111, SDV 100. Focuses on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1 hour per week.

NUR 137 Principles Of Pharmacology II (1 CR.) Prerequisites: Acceptance into the nursing program. Prerequisites: MTH 126, ITE 199, ENG 111, SDV 100. Continues discussion on principles of medication administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, drug action on specific body systems, and basic computer applications. Lecture 1 hour per week.

## NUR 201 Psychiatric Nursing (3 CR.)

Prerequisites: NUR 109 or 115, 136, 137, 226, PSY 231, BIO 142. Focuses on the care of individuals/ families requiring clinical treatment. Uses all com-
ponents of the nursing process with increasing degrees of skill. Includes math computational skills and basic computer instruction related to the delivery of nursing care, alterations in behavior, eating disorders, mood disorders, anxiety, chemical dependency and dementias. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

NUR 205 Intro To Second Level Nursing (5 CR.) Prerequisites: NUR 109 or 115, 136, 137, 226, PSY 231, BIO 142. Focuses on principles and concepts of nursing care for individuals, families, and/ or groups in the community and hospital setting. Focuses on health team membership and various nursing care delivery systems. Includes math computational skills, basic computer instruction related to the delivery of nursing care; endocrine, renal, cardiovascular and immunological disorders in school and home health settings. Provides supervised learning experiences in cooperating agencies. Lecture 2 hours. Laboratory 9 hours. Total 11 hours per week.

NUR 208 Acute Medical/Surgical Nursing (6 CR.) Prerequisites: NUR 205, PSY 231. Focuses on the use of nursing process to provide care to individuals/ families with acute medical or surgical problems or to prevent such problems. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in cooperating agencies. Lecture 3 hours. Laboratory 9 hours. Total 12 hours per week.

## NUR 226 Health Assessment (2 CR.)

Prerequisites: MTH 126, ITE 119, ENG 111, SDV 100 and admission to the program. Introduces the systematic approach to obtaining a health history and performing a physical assessment. Lecture 1 hours. Laboratory 3 hours. Total 4 hours per week.

NUR 236 Principles Of Pharmacology III (1 CR.) Prerequisites: NUR 109 or $115,136,137,226$, BIO 142 or 232 . Teaches principles of medication and administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, and drug action on specific body systems. Part I of II. Lecture 1 hour per week.

NUR 237 Principles Of Pharmacology IV (1 CR.) Prerequisites: NUR 137, NUR 137, NUR 205. Teaches principles of medication and administration which include dosage calculations, major drug classifications, drug legislation, legal aspects of medication administration, and drug action on specific body systems. Part II of II. Lecture 1 hour per week.

NUR 245 Maternal/Newborn Nursing (3 CR.)
Prerequisites: NUR 205, PSY 231. Develops nursing skills in caring for families in the antepartum, intrapartum, and post-partum periods. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## NUR 254 Dimensions Of Professional Nursing (2 CR.)

Prerequisites: NUR 205, PSY 231. Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 2 hours per week.

## PHILOSOPHY (PHI)

PHI 211-212 The History Of Western Philosophy I-II (3 CR.)(3 CR.)
Provides historical survey of representative philosophers from the pre-Socratics to the present. Introduces the student to development of philosophical thought through selected readings of original works and appropriate critical materials. ENG 111 requisite level. Lecture 3 hours per week. May be taken out of sequence.

## PHOTOGRAPHY (PHT)

PHT 101-102 Photography I-II (3 CR.)(3 CR.)
Teaches principles of photography and fundamental camera techniques. Requires outside shooting and lab work. ENF 2 requisite level. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Must be taken in sequence.

## PHYSICAL EDUCATION AND RECREATION (PED) <br> PED 103-104 Aerobic Fitness I-II (1-2 CR.)(1-2 CR.)

Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. ENF 1 requisite level. Variable hours per week. Must be taken in sequence.

## PED 109 Yoga (1-2 CR.)

Focuses on the forms of yoga training emphasizing flexibility. ENF 1 requisite level. Variable hours per week.

## PED 111-112 Weight Training I-II (1-2 CR.)(1-2 CR.)

Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. ENF 1 requisite level. Variable hours per week. Must be taken in sequence.

## PED 123-124 Tennis I-II (1-2 CR.)(1-2 CR.)

Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. ENF 1 requisite level. Variable hours per week. Must be taken in sequence.

## PED 125 Badminton (1 CR.)

Introduces skills, techniques, strategies, rules, and scoring. Lecture 0-1 hour. Laboratory 2-4 hours.

## PED 126 Archery (1-2 CR.)

Teaches skills and techniques of target archery. Focuses on use and maintenance of equipment, terminology, and safety. ENF 1 requisite level. Variable hours per week.

## PED 133-134 Golf I-II (1-2 CR.)(1-2 CR.)

Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. ENF 1 requisite level. Variable hours per week.

## PED 137-138 Martial Arts I (2 CR.)(2 CR.)

Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. ENF 1 requisite level. Lecture 0-1 hours. Laboratory 2-4 hours. Total 2-4 hours per week. Must be taken in sequence.

## PED 149 Cardio Sculpt I (2 CR.)

Combines strength training and cardiovascular workouts that strengthen the major muscle groups as well as developing endurance. Utilizes the use of weights, balls and bands, fitness equipment or a combination thereof that promote cardiovascular endurance and develops muscle strength. Benefits all levels of participation. ENF 1 requisite level. Lecture 0-2 hour. Laboratory 2-4 hours. Total 2-4 hours per week.

## PED 154 Volleyball (1 CR.)

Introduces skills, techniques, strategies, rules, and scoring. Lecture 0-1 hour. Laboratory 2-4 hours.

## PED 155 Wallyball (1-2 CR.)

Focuses on skills, techniques, strategies, rules and scoring. Wallyball is volleyball played on a racquetball court. ENF 1 requisite level. Lecture 0-1 hour. Laboratory 2-4 hours.

PED 195 - Topics In Physical Education (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.

PHYSICS (PHY)
PHY 121-122 Principles Of Physics I-II (4 CR.) (4 CR.)
Covers fundamental principles of physics. Includes mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics from modern physics. ENF 3 requisite level. Prerequisites 2 units of high school algebra and one unit of high school geometry or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Must be taken in sequence.

## PHY 131 Applied Physics I (3 CR.)

Emphasizes application of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, electricity, and magnetism. Prerequisites: MTH 105 and MTH 106. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

## PHY 201-202 General College Physics I-II

 (4 CR.)(4 CR.)Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Prerequisite MTH 164 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Must be taken in sequence.

## PHY 241-242 University Physics I-II (4 CR.)(4 CR.)

Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. ENG 111 requisite level. Prerequisite for PHY 241--MTH 173, MTH 175, or MTH 273 or divisional approval. Prerequisite for PHY 242--MTH 174 or MTH 274 or divisional approval. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Must be taken in sequence.

## POLITICAL SCIENCE (PLS)

PLS 135 American National Politics (3 CR.)
Teaches political institutions and processes of the national government of the United States, focuses on the Congress, presidency, and the courts, and on their interrelationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. ENF 3 requisite level. Lecture 3 hours per week.

PLS 211-212 U.S. Government I-II (3 CR.)(3 CR.)
Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. ENF 3 requisite level. Lecture 3 hours per week.

## PRACTICAL NURSING (PNE)

Prerequisite for all courses in this department is current enrollment in the Practical Nursing Plan.

## PNE 136 Maternity, Newborn, And Pediatric Patients (4 CR.)

Uses a family centered approach; studies the normal and common complications in pregnancy, childbirth, post-partum, the neonate, and children through adolescence. Covers milestones in all aspects of growth and development and common childhood disorders at various ages. Lecture 4 hours. Total 4 hours per week. Prerequisites: Successful completion ("C" or higher) of all first and second semester PN coursework.

## PNE 143 Applied Nursing Skills (1 CR.)

Applied principles and procedures essential to the basic nursing care of patients. Laboratory 3 hours per week. Total 3 hours per week. Prerequisites: admission to the PN program.

## PNE 145 Trends In Practical Nursing (1 CR.)

Studies the role of the Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour. Total 1 hour per week. Prerequisites: Successful completion ("C" or higher) of all first and second semester PN coursework.

## PNE 155 Body Structure And Function (3 CR.)

Studies the structure and function of the body. Lecture 3 hours. Total 3 hours per week. Prerequisites: admission to the PN program.

## PNE 158 Mental Health And Psychiatric Nursing (1 CR.)

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. Lecture 1 hour. Total 1 hour per week. Prerequisites: Successful completion ("C" or higher) of all first semester PN coursework.

## PNE 161 Nursing In Health Changes (6 CR.)

Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week. Prerequisites: admission to the PN program.

## PNE162 Nursing In Health Changes II (10 CR.)

Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 5 hours. Laboratory 18 hours. Total 23 hours per
week. Prerequisites: Successful completion ("C" or higher) of all first semester PN coursework.

PNE 164 Nursing In Health Changes IV ( 10 CR.) Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 18 hours. Total 23 hours per week. Prerequisites: Successful completion ("C" or higher) of all first and second semester PN coursework.

## PNE 173 Pharmacology For PN's (2 CR.)

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. Lecture 2 hour. Total 2 hour per week. Prerequisites: admission to the PN program.

PNE 174 Applied Pharmacology For PN's (1 CR.) Applies problem solving skills in preparing and administering medications. Laboratory 3 hours. Total 3 hours per week. Prerequisites: admission to the PN program.

## PNE 199 Supervised Study (1 CR.)

Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Lecture 1 hour. Total 1 hour per week. Prerequisites: Successful completion ("C" or higher) of all first, second, and third semester PN coursework except PNE 145 - Trends in Practical Nursing.

## PNE 295 Care Of Children (2 CR.)

Uses a family centered approach; studies the normal and common complications of infants, children, and adolescents. Lecture 2 hours per week.

## PSYCHOLOGY (PSY)

PSY 116 Psychology Of Death And Dying (3 CR.) Focuses on psychological aspects of death and dying. Teaches the meaning of death and ways of handling its personal and social implications. Includes psychological, sociological, cultural, and religious views of death. ENF 3 requisite level. Lecture 3 hours per week.

## PSY 120 Human Relations (3 CR.)

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. ENF 2 requisite level. Lecture 3 hours per week.

PSY126 Psychology For Business And Industry (3 CR.)
Focuses on the application of psychology to inter-
personal relations and the working environment. Includes topics such as group dynamics, motivation, employee-employer relationship, and interpersonal communications. May include techniques for selection and supervision of personnel. ENF 3 requisite level. Lecture 3 hours per week.

## PNE 195 Care Of Maternal And Newborn <br> Clients (2 CR.)

Uses family centered approach; studies the normal and common complications in pre-pregnancy, pregnancy, childbirth, post-partum and the neonate. Lecture 2 hours per week.

## PSY 200 Principles Of Psychology (3 CR.)

Surveys the basic concepts of psychology. Covers the scientific study of behavior and mental processes, research methods and measurement, theoretical perspectives, and application. Includes biological bases of behavior, learning, social interactions, memory, and personality; and other topics such as sensation, perception, consciousness, thinking, intelligence, language, motivation, emotion, health, development, psychological disorders, and therapy. ENF 3 requisite level. Lecture 3 hours per week.

## PSY 215 Abnormal Psychology (3 CR.)

Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Prerequisite: PSY 200. ENF 3 requisite level. Lecture 3 hours per week.

## PSY 230 Developmental Psychology (3 CR.)

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. ENF 3 requisite level. Lecture 3 hours per week.

## PSY 231-232 Life Span Human Development I-II (3 CR.)(3 CR.)

Investigates human behavior through the life cycle. Describes physical, cognitive, and psycho- social aspects of human development from conception to death. ENF 3 requisite level. Lecture 3 hours per week. May be taken out of sequence.

## PSY 235 Child Psychology (3 CR.)

Studies development of the child from conception to adolescence. Investigates physical, intellectual, social and emotional factors involved in the child's growth. ENF 3 requisite level. Lecture 3 hours per week.

PSY 236 Adolescent Psychology (3 CR.)
Studies development of the adolescent. Investigates physical, intellectual, social, and emotional factors of the individual from late childhood to early adulthood. ENF 3 requisite level. Lecture 3 hours per week.

## RADIOLOGY (RAD) <br> RAD 105 Introduction To Radiology, Protection And Patient Care (2 CR.)

Presents brief history of Radiologic profession, code of ethics, conduct for Radiologic students, and basic fundamentals of radiation protection. Teaches the care and handling of the sick and injured patient in the Radiology Department. Introduces the use of contrast media necessary in the investigation of the internal organs. Lecture 2 hours per week.

## RAD 110 Imaging Equipment And Protection (3 CR.)

Discusses the basic components of a radio- graphic unit, principles of x-ray production, principles of image receptors, automatic processing, film evaluation and concepts in radiation protection and radiobiology. Lecture 3 hours per week.

## RAD 111-112 Radiologic Science I-II (4 CR.)

Teaches concepts of radiation, radiography physics, fundamentals of electromagnetic radiation, electricity and magnetism, and application of these principles to radiography. Focuses on X-ray production, emission, and X-ray interaction with matter. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

RAD 121 Radiographic Procedures I (4 CR.)
Introduces procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the chest, abdomen, extremities, and axial skeleton. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## RAD 205 Radiation Protection And Radio-Biology (3 CR.)

Studies methods and devices used for protection from ionizing radiation. Teaches theories of biological effects, cell and organism sensitivity, and the somatic and genetic effects of ionizing radiation. Presents current radiation protection philosophy for protecting the patient and technologist. Lecture 3 hours per week.

RAD 215 Correlated Radiographic Theory (2 CR.) Presents intensive correlation of all major Radiologic technology subject areas. Studies inter- relationships of biology, physics, principles of exposure,
radiologic procedures, patient care, and radiation protection. Lecture 2 hours per week.

## RAD 221 Radiographic Procedures II (4 CR.)

Continues procedures for positioning the patient's anatomical structures relative to X-ray beam and image receptor. Emphasizes procedures for routine examination of the skull, contrast studies of internal organs, and special procedures employed in the more complicated investigation of the human body. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## RAD 225 Specialized Patient Care Procedure (2 CR.)

Focuses on specific nursing procedures associated with routine and emergency conditions encountered in the performance of radiographic examinations. Teaches medication preparation and administration principles. Lecture 2 hours per week.

## RAD 240 Radiographic Pathology (3 CR.)

Presents a survey of common medical and surgical disorders that affect radiographic image. Discusses conditions related to different systems of the human body. Studies the correlation of these conditions with radiographs. Lecture 3 hours per week.

## RAD 245 Radiologic Specialties (2 CR.)

Introduces the study of treatment of disease as it relates to various imaging modalities, computerized tomography, and magnetic resonance imaging. Introduces computers and other innovations in radiology. Emphasizes theory, principle of operation, and clinical application of these topics. Lecture 2 hours per week.

## RAD 246 Special Procedures (2 CR.)

Studies special radiographic and surgical procedures and equipment employed in the more complicated investigation of internal conditions of the human body. Lecture 2 hours per week.

## RAD 247 Cross-Sectional Anatomy (3 CR.)

Presents a specialized study of cross-sectional anatomy relevant to sectional imaging modalities such as computed tomography and magnetic resonance imaging. Prerequisite: ARRT or eligible. Lecture 3 hours per week.

## RAD 255 Radiographic Equipment (3 CR.)

Studies principles and operation of general and specialized X -ray equipment. Lecture 3 hours per week.

RAD 256 Radiographic Film Evaluation (3 CR.)
Presents a concentrated study and practical evalu-
ation of radiographic quality and disease effects on radiographs. Focuses on technical factors, procedural factors, equipment malfunctions, and other difficulties associated with radiographs. Prerequisites: BIO 141-142, RAD 111-112, RAD 121-221. Lecture 3 hours per week.

## REAL ESTATE (REA) <br> REA 100 Principles Of Real Estate ( 4 CR.)

Examines practical applications of real estate principles. Includes a study of titles, estates, land descriptions, contracts, legal instruments, financing and management of real estate. Lecture 4 hours per week.

## REA 215 Real Estate Brokerage (3 CR.)

Considers administrative principles and practices of real estate brokerage, financial control and marketing of real property. Lecture 3 hours per week.

## REA 216 Real Estate Appraisal (3 CR.)

Explores fundamentals of real estate valuation. Introduces the Uniform Standards of Professional Appraisal Practice and the Uniform Residential Appraisal Report form. Lecture 3 hours per week.

## REA 217 Real Estate Finance (3 CR.)

Presents principles and practices of financing real estate. Analyzes various types of mortgage note contracts and mortgage and deed of trust instruments. Covers underwriting of conventional and government insured and guaranteed loans. Lecture 3 hours per week.

## REA 218 Appraising The Single Family Residence (2-3 CR.)

Promotes an understanding and working knowledge of procedures and techniques used to estimate market value of vacant residential land and improved single family residential properties. Emphasizes the proper application of valuation methods and techniques to residential properties and extraction of data from the market for use in sales comparison, cost and income capitalization approaches to value. Lecture 2-3 hours per week.

## REA 220 Income Property Valuation I (3 CR.)

Familiarizes the student with the techniques that are utilized to perform the appraisal of more complex income producing properties. Focuses on income and expense forecasting, appropriate techniques for determining capitalization rates, and discounted cash flow method. Includes valuation of complex commercial properties such as apartment complexes, office buildings, shopping centers, industrial properties, hotels, and mixed use complexes. Prerequisite REA 216, or equivalent. Lecture 3 hours per week.

REA225 Real Property Management (3 CR.)
Introduces the field of property management. Focuses on the principles of tenant selection and retention, financial management, and building maintenance. Lecture 3 hours per week.

REA 238 Professional Appraisal Standards (1 CR.) Examines the provisions and standard rules that govern professional appraisal practices. Covers the "Binding Requirements" and "The Specific Appraisal Guidelines" published by The Appraisal Foundation. Lecture 1 hour per week.

## REA 245 Real Estate Law (3 CR.)

Studies real estate law, including rights incidental to property owner- ship and management, agency contract and application to real estate transfer covenancing probate proceedings, trust transactions, and tax implications. Lecture 3 hours per week. May be taken out of sequence.

## REA 246 Real Estate Economics (3 CR.)

Examines the nature and classification of land economics, the development of property, construction and subdivision, economic values and real estate evaluation, real estate cycles and business fluctuations, residential market trends, rural property and special purpose property trends. Lecture 3 hours per week.

## RELIGION (REL)

REL 100 Introduction To The Study Of Religion (3 CR.)
Explores various religious perspectives and ways of thinking about religious themes and religious experience. Reading and writing level requisite ENF 3. Lecture 3 hours per week.

REL 200 Survey Of The Old Testament (3 CR.)
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. ENF 3 requisite level. Lecture 3 hours per week.

REL 210 Survey Of The New Testament (3 CR.)
Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting. ENF 3 requisite level. Lecture 3 hours per week.

## REL 216 Life And Teachings Of Jesus (3 CR.)

Studies the major themes in the teachings of Jesus of Nazareth as recorded in the Gospels, and examines the events of his life in light of modern biblical and historical scholarship. Lecture 3 hours per week.

REL 231-232 Religions Of The World I-II (3 CR.) ( 3 CR. )
Studies religions of the world with attention to origin, history, and doctrine. ENF 3 requisite level. Lecture 3 hours per week.

## REL 233 Introduction To Islam (3 CR.)

Studies Islam in its historical, religious, and political dimensions and assists in the understanding of its contemporary vitality and attraction as a faith, culture, and a way of life.

REL 240 Religions In America (3 CR.)
Surveys various manifestations of religion in the American experience. Emphasizes concepts, problems, and issues of religious pluralism and character of American religious life. ENF 3 requisite level. Lecture 3 hours per week.

## RESPIRATORY THERAPY (RTH)

Prerequisite for all courses in this department is current enrollment in the Respiratory Therapy Plan.

## RTH 102 Integrated Sciences For Respiratory Care (3 CR.)

Integrates the concepts of mathematics, chemistry, physics, microbiology, and computer technology as these sciences apply to the practices of respiratory care. Lecture 3 hours per week.

RTH 110 Fundamental Theory And Procedures For Respiratory Care (3 CR.)
Focuses on the development of basic respiratory care skills necessary to enter the hospital environment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

RTH 111 Anatomy \& Physiology Of The
Cardiopulmonary System (3 CR.)
Concentrates on anatomy and physiology of the cardiopulmonary system. Lecture 3 hours per week.

## RTH 112 Pathology Of The Cardiopulmonary System (3 CR.)

Presents pathophysiology of medical and surgical diseases with emphasis upon diseases of cardiopulmonary system. Lecture 3 hours per week.

## RTH 121 Cardiopulmonary Science I (3 CR.)

Focuses on assessment, treatment, and evaluation of patients with cardiopulmonary disease. Explores cardiopulmonary, renal and neuromuscular physiology and pathophysiology. Lecture 3 hours per week.

## RTH 131-132 Respiratory Care Theory And Procedures I-II (4 CR.)(4 CR.)

Presents theory of equipment and procedures used for patients requiring general and critical cardiopulmonary care. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

## RTH 135 Diagnostic And Therapeutic Procedures I (2 CR.)

Focuses on purpose, implementation and evaluation of equipment, and procedures used in the diagnosis and therapeutic management of patients with cardiopulmonary disease. Lecture 2 hours. Total 2 hours per week.

## RTH 145 Pharmacology For Respiratory Care I (2 CR.)

Introduces students to pharmacologic agents used in cardiopulmonary care. Lecture 2 hours per week.

RTH 151 Fundamental Clinical Procedures I (4 CR.) Offers clinical instruction in basic patient care practices. Lecture 2 hour. Laboratory 6 hours. Total 8 hours per week.

## RTH 152 Fundamental Clinical Procedures II (4 CR.)

Offers clinical instruction in basic patient care practices. Lecture 2 hour. Laboratory 6 hours. Total 8 hours per week.

## RTH 224 Integrated Respiratory Therapy Skills I (2 CR.)

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. Lecture 2 hours per week.

## RTH 226 Theory Of Neonatal And Pediatric Respiratory Care (2 CR.)

Focuses on cardiopulmonary physiology and pathology of the newborn and pediatric patient. Lecture 2 hours per week.

## RTH 227 Integrated Respiratory Therapy Skills II (2 CR.)

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. Lecture 2 hours per week.

RTH 253 Advanced Clinical Procedures III (3 CR.) Offers clinical instruction in advanced patient care practices. Clinical 15 hours per week.

RTH 254 Advanced Clinical Procedures IV (3 CR.)
Offers clinical instruction in advanced patient care practices. Clinical 15 hours per week.

## RTH 267 12-Lead Electro Cardiographic Diagnostics (3 CR.)

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. Lecture 3 hours per week.

## SAFETY (SAF)

SAF 126 Principles Of Industrial Safety (3 CR.) 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. Prerequisite: HVE Plan. Lecture 3 hours per week.

## SAF 130 Industrial Safety (1 CR.)

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 1 hour per week.

SAF 246 Hazardous Chemicals, Materials, And Waste In The Workplace (3 CR.)
Introduces the rules and regulations governing use, exposure to, and disposal of hazardous chemicals, materials and waste by-products. Discusses OSHA "Right to Know Laws," EPA and RCRA regulations. Provides the techniques to interpret and understand the code of Federal Regulations. Emphasis on management mandates, strategies, and options to comply with these regulations. Lecture 3 hours per week.

## SCIENCE TECHNOLOGY (SCT) <br> SCT 111-112 Introduction To Environmental And Science Technology I-II (4 CR.)(4 CR.)

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. ENF 2 requisite level. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Must be taken in sequence.

## SOCIOLOGY (SOC)

SOC 200 Principles Of Sociology (3 CR.)
Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. ENF 3 requisite level.

## SOC 211 Principles Of Anthropology (3 CR.)

Inquiries into the origins, development, and diversification of human biology and human cultures. Includes fossil records, physical origins of human development, human population genetics, linguistics, cultures' origins and variation, and historical and contemporary analysis of human societies. Part I of II. Lecture 3 hours per week.

## SOC 215 Sociology Of The Family (3 CR.)

Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child-rearing, husband and wife interaction, single parent families, alternative life-styles. ENF 3 requisite level. Lecture 3 hours per week.

## SOC 268 Social Problems (3 CR.)

Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. ENF 3 requisite level. Lecture 3 hours per week.

## SPANISH (SPA)

## SPA 101-102 Beginning Spanish I-II (4 CR.)(4 CR.)

Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. ENG 111 requisite level. Lecture 4 hours per week.

## STUDENT DEVELOPMENT (SDV) SDV 100 College Success Skills (1 CR.)

Assists students in transition to college. 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. ENF 1 requisite level. Lecture 1 hour per week.

## SDV 101 Orientation To Business Related Programs (1 CR.)

Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college and to the discipline in which they are enrolled. Covers topics such as services offered 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. ENF 1 requisite level. Lecture 1 hour per week.

## SDV 101 Orientation To Criminal Justice Related Programs (1 CR.)

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. ENF 1 requisite level. Lecture $1-3$ hours per week. 1-3 credits

## SDV 101 Introduction To Technology (1 CR.)

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. ENF 1 requisite level. Lecture 1 hour per week.

## SDV 106 Preparation For Employment (1 CR.)

Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. ENF 3 requisite level. Lecture 1 hour per week.

## SDV 107 Career Education (1-3 CR.)

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. May be substituted for SDV 100. ENF 1 requisite level.

SDV 108 College Survival Skills (1-3 CR.)
Provides an orientation to the college. Introduces study skills, career and life planning. Offers an opportunity
to engage in activities aimed at self-discovery. Emphasizes development of "Coping Skills" such as listening, interpersonal relations, competence, and improved self-concept. Recommended for students enrolled in developmental courses. Lecture 1-3 hours per week.

SDV 109 Student Leadership Development (1 CR.) Provides opportunities for students to learn leadership theory and skills for application in campus organizations, committees and groups. Lecture 1 hour per week.

## TRAVEL (TRV) <br> TRV 240 Principles Of Event Planning And

 Management (3 CR.)Focuses on the detailed aspects of how to produce, stage, script, and manage special events within the context of achieving organizational goals. Emphasizes the five critical stages in planning and managing successful special events: research needs and make goal assessments; design events to meet organizational purposes; planning the effective event; coordination and on-site management; and postevent evaluation. Lecture 3 hours per week. Total 3 hours per week.

## WELDING (WEL)

WEL 100 Fundamentals Of Welding (3 CR.)
Introduces electric and gas welding and cutting. Provides fundamental principles of joining ferrous and nonferrous metals, welding and cutting processes, equipment operation, and safety procedures with emphasis upon welding and cutting procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## WEL 110 Welding Processes (3 CR.)

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 2 hours. Laboratory 3 hours. Total 5 hours per week.

## WEL 115 Arc And Gas Welding (3 CR.)

Presents arc and gas welding practices. Discusses safety, general welding practices and effects of welding on metals. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 123-124 Arc Welding I-II (3-4 CR.)(3-4 CR.) Teaches operation of AC transformers and DC motor generator arc welding sets, 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. Variable hours per week. ENF 1 requisite level.

## WEL 126 Pipe Welding I (3 CR.)

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 2 hours. Laboratory 3 hours. Total 5 hours per week.

## WEL 129 Pipefitting And Fabrication (3 CR.)

Reviews basic mathematics necessary for the pipe trade. Teaches basic methods for fabricating piping offsets, miter-turn fittings, laterals, tees, odd angle elbows from 90 degree elbows, and the use of pipe fitting tools. Lecture 3 hours per week.

WEL 130 Inert Gas Welding (3 CR.)
Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various applications, manual and semiautomatic welding. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## WEL 141-142 Welder Qualification Tests I \& II (3 CR.)(3 CR.)

Studies techniques and practices of testing welded joints through destructive and nondestructive tests. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

## WEL 145 Welding Metallurgy (3 CR.)

Studies steel classifications, heat treatment procedures, properties of ferrous and nonferrous metals. Discusses techniques and practices of testing welded joints and destructive/ nondestructive, visual magnetic and fluorescent testing. Lecture 3 hours per week.

## WEL 150 Welding Drawing And Interpretation (2-3 CR.)

Teaches fundamentals required for successful drafting as applied to the welding industry. Includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Variable lecture/lab hours per week.

## WEL 160 Semiautomatic Welding Processes (3 CR.)

Introduces semi-automatic welding processes with emphasis on practical application. Includes the study of filler wires, fluxes, and gases. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 198 Seminar And Project In Welding (3 CR.) 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. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

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A.A.S., Mountain Empire Community College

Marshall, Donna, RRT
Lecturer, Respiratory Therapy
A.A.S., East Tennessee State University

## Neal, Kathy, RRT

Lecturer, Respiratory Therapy
A.A.S., Mountain Empire Community College

Phillips, Alice, CRT
Lecturer, Respiratory Therapy
Certificate, Mountain Empire Community College
Pinnell, Jennifer, RRT
Lecturer, Respiratory Therapy
A.S. East Tennessee State Unversity

Wilson, Robin, RRT
Lecturer, Respiratory Therapy
B.S., East Tennessee State University

## Johnson, Ashley, RRT

Lecturer, Respiratory Therapy
B.S., East Tennessee State University

## Advisory Committees for College Programs

## Air Conditioning

Joe Buchanan
Tom Bush
Anthony Honeycutt

Business and Information Technology

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| Tim Blankenbeckler | Colby Hurd | Ezra Powers |
| Esther Bolling | Mary Jane Lavender | Joseph Rasnic |
| Carol Carter | Elizabeth Johnson | Hank Rogers |
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| Tom Deaderick | Luke Minor | Matt Stanley |
| Pam Giles | Jewel Morgan | Mark "Bo" Taylor |
| Larry Hamilton | Charlotte Mullins | Hon. Henry Vanover |

## Computer-Aided Drafting

Scott Bays
Robert Brewer
Mike Clark
Stanley Crabtree
Matthew Doty

Daniel Kestner
Tom Miller
Chris Mullins
Steven Mullins
Wayne Newberry
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Ron Kendrick
Delilah Long
William Mays
Kathy Mitchell
Tina Owens
Dr. Norman Rexrode
Dick Steinberg

Environmental Science \& Forest Science
$\begin{array}{ll}\text { Dr. Junaki Alavalapati } & \text { Dan Danko } \\ \text { Lois Boggs } & \text { Larry Robbins }\end{array}$
Clark Boyer
Wes Stanley
Rosa-lee Cooke
Ann Marie Sturgill
Industrial Electronics

| Eddie Baker | Dwight Dingus |
| :--- | :--- |
| Tim Bartley | Jay Grubb |

Jay Croley
Jay Grubb
Stephen Quindry
Maintenance/Manufacturing/Mining
Tabitha Church
Jeff Frazier
Gary Johnson
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Medical Lab Technology

John Boswell
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Kendall Martin
Vickie Neeley
Brian Reynolds
David Rice
Dennis Sargent

Nursing
Amanda Blevins
Kelli Carter
Rhandi Harris

Terena Scott
Pam Shelton Jennifer Tauzell
Lisa Wilson

Jan Mosley
Kim Pennington
Tammie Yeary

Occupational Therapy Assistant

Greta Browning
Jane Hill
Crystal Keen
Physical Therapy Assistant
Laura C. Baldwin
Maria G. Beamer
Lee Chaffee
Debbie Clark
Marilyn Y. Ertz

## Police Science/Corrections

1st Sgt. Jack Balderidge
Jim Boggs
Steve Clear
Doug Cooley

## Practical Nursing

Viola Adams
Christopher Barnett
Tammy Branham
Stephanie Carter
Jarred Day
Rhandi Harris
Radiologic Technology
Norma Anderson
Dr. Wes Asbury
Judy Austin
Jimmy Bowen
Dr. Ernest Coeburn
Greg Dalton
Kathren Dowdy
Respiratory Therapy
Tommy Clements
Jason Crawford
Dr. Wael K. El-Minaoui
Sullivan Horne
Ashley Johnson

## Welding

Anthony Anderson
Timothy Austin
Robert Bowen

Jennifer Lambert
Alicia Holbrook Miller
Andy Powers

Helen French
Margaret Gibson
Marie Goodwin
Christine B. Hilton
William H. Kolb

| Ronald Elkins | Gene Vanover |
| :--- | :--- |
| Matt Pilkenton | Bryan Watson |

enton
Richard Stallard
Steve Sutphin

Renau Hazelwood
Cheryle Henry
Susan Jones
Mitch Kennedy
Laura Lane
Kathy Mitchell

Sherri Gibson
Fred Horn Wayne Keene
Janice Lowe
Rita Mitchell
Elizabeth Myers
Bobby Mullins

Nicolette Kecev
Lisa Kennedy
Donna Marshall
Kathy Neal
Alice Phillips

| Ken Bowling | Bryan Musick |
| :--- | :--- |
| Cecil Hubbard | John Myers |
| Benjamin Kennedy | Tim Tipton |

Jennifer Pinnell
Tracie Powers
Robin Wilson

Bryan Musick
Tim Tipton


[^0]:    ${ }^{1}$ Work components my be taken in the summer.

[^1]:    ${ }^{1}$ Prerequisite ELE 140 or equivalent

[^2]:    ${ }^{1}$ Prerequisite ELE 140 or equivalent

[^3]:    ${ }^{1}$ Prerequisite ELE 140 or equivalent

[^4]:    'Consult with advisor.

[^5]:    ${ }^{1}$ Appropriate higher-level mathematics courses may be substituted. Consult with advisor.

[^6]:    ${ }^{1}$ Humanities electives include: ART 101,102; CST 130,151,152; ENG 241, 242, 243, 244, 251, 252; HUM 100, 201, 202; MUS 121, 122; PHI 101, 220, 225, 226, 227; REL 200, 210, 231, 232.

[^7]:    For Further Information Contact:
    Jerry Ramey - jramey@mecc.edu - 276.523.2400 ext. 326
    Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

[^8]:    For Further Information Contact:
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    Nasser Maksoud - nmaksoud@mecc.edu - 276.523.2400 ext. 259
    Fran Doyle, Assistant Dean -fdoyle@mecc.edu - 276.523.2400 ext. 313

[^9]:    ${ }^{1}$ Technical Elective- Chose from one of the following: AIR 112 Air Conditioning\& Refrigeration Controls II, AIR 112 Air Conditioning \& Refrigeration Controls II, ELE 132 National Electric Code II, ENE 110 Solar Power Installations, ELE 239 Programmable Controllers, ETR 168 Digital Circuit Fundamentals, ETR 218 Industrial Electronic Circuits

[^10]:    For Further Information Contact:
    Roger Greene - rgreene@mecc.edu - 276.523.2400 ext. 262
    Jimmy Garland - jgarland@mecc.edu - 276.523.2400 ext. 265
    Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

[^11]:    ${ }^{1}$ Choices are: MUS 168, MUS 169, MUS 170, MUS 171. ${ }^{2}$ HUM, MUS, ENG 278, ENG 281

[^12]:    Note: This program is intended for apprentices in wastewater plants. See faculty advisor for additional information.

[^13]:    For Further Information Contact: Dr. Chuks Ogbonnaya - cogbonnaya@mecc.edu - 276.523.2400 ext. 276
    Rosa Cooke - rcooke@mecc.edu - 276.523.2400 ext. 364
    Tommy Clements, Dean - tclements@mecc.edu - 276.523.2400 ext. 431

[^14]:    HIS 276 United States History Since World War II (3 CR.)
    Investigates United States history from 1945 to the present, studying both domestic developments and American involvement in international affairs. ENF 3 requisite level. Lecture 3 hours per week.

