Southwest Virginia Community College

Mailing Address:
P. O. Box SVCC, Richlands, VA 24641

Physical Address:
724 Community College Road, Cedar Bluff, VA 24609

Telephone: (276)964-2555
Toll Free: 1-855-877-3944
V/TDD: (276)964-7235
Fax SWCC @ (276)964-9307

Southwest Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree. Contact the Commission on Colleges at (1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500) (Note: Inquires to the Commission should relate only to the accreditation of SWCC, and not for general admission information)

IMPORTANT NOTICE:

Southwest Virginia Community College provides its website, catalog, handbook, and any other printed materials or electronic media for your general guidance. The college does not guarantee that the information contained within them, including, but not limited to, the contents of any page that resides under the DNS registration of www.sw.edu is up-to-date, complete and accurate, and individuals assume any risk associated with relying upon such information without checking other credible sources, such as a student’s academic advisor. In addition, a student’s or prospective student’s reliance upon information contained within these sources, or individual programs catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the college. Further, the college reserves the right to make changes to any provision or requirement with 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.
SWCC GUIDED PATHWAYS SYSTEM (GPS)

WELCOME to Southwest Virginia Community College

Southwest Virginia Community College (SWCC), a comprehensive two-year institution, provides quality educational and cultural enrichment opportunities for lifelong learners, workforce and community.

SWCC was established as a part of a statewide community college system. It serves the counties of Russell, Dickenson (partial), Tazewell and Buchanan. SWCC has been approved by the State Council of Higher Education for Virginia to offer the associate degree and is accredited by the Commission on Colleges of the Southern Association of College and Schools (SACSCOC) to award the associate degree.

Please be aware that this publication is not the SWCC Catalog and Student Handbook, which can be found online at the college's website, www.sw.edu. This publication is intended to give you a snapshot view of the programs the college has to offer. Detailed program information, policies, and procedures may be found in the online catalog, and you should refer to that document for more specific details.

SWCC offers a variety of associate's degrees, diplomas, certificates, and career studies certificates in academic fields ranging from nursing to machine technology. Program length varies from one semester up to two years for the average associate's degree program. Many of our students complete an associate's degree and one or more certificate programs during their time at SWCC.

SWCC has been recognized nationally for its excellence, its affordability, and its success in graduating students from their chosen programs in a timely manner. Please take time to look through this publication and decide how Southwest Virginia Community College can assist you in achieving your career goals.

Again, welcome to Southwest Virginia Community College. Transforming lives, strengthening the community and inspiring excellence is what we are all about, and we want you to succeed in your studies, your career, and your life.
YOUR STEPS TO SUCCESS

Step 1: Apply to SWCC

Complete your application online at www.sw.edu. You will then be assigned a unique username and student emplID# that you will need to register for classes moving forward. You may also complete a paper application, available in Admissions, Tazewell Hall, Room 112.

Step 2: Provide Transcripts

“Official” high school, GED, and/or college transcripts must be submitted for your educational records. These can be brought to Admissions in Tazewell Hall, Room 112 or mailed to:

Attention: SWCC Admissions
PO Box SVCC
Richlands, VA 24641
*Please note: It is not necessary to request transcripts from other Virginia Community Colleges.

Step 3: Apply for Financial Aid by Filling out FAFSA

Complete a FASFA application online at www.FAFSA.ed.gov. This must be complete before you can be awarded any other scholarships available through SWCC. The FAFSA does require extensive financial documentation, so please get an early start!

Step 4: Determine English and Math placement.

You may do one of the following
2. Submit your official high school transcript with standard GPA calculation to the Admissions office. Your GPA and courses taken will be evaluated to determine the English and math courses needed at SWCC, based on your program choice.
3. Submit official SAT or ACT scores to Admissions. Information regarding current scores accepted for college placement can be found online at sw.edu/home/admissions/assessment-testing.

The VPT is administered on campus in Dellinger Hall, room 215, Monday-Friday and must be started before 2:30pm. Call 276.964.7706 to schedule your test. Please allow up to 4 hours to complete the test.

You may have to enroll in developmental courses, which do not count towards your credential, but are needed to prepare you for program requirements. These courses are financial aid eligible.

*Important: VPT placement scores are valid 5 years from testing date. You are allowed one retest per year, provided you do not enroll in developmental coursework prior to the retest.

Step 5: Meet Your Student Success Advisor and Register

Once you have completed step 4, you will need to meet with your faculty advisor. You can view this information in SIS, or contact Admissions and ask who your advisor is. Your faculty advisor can help you explore career and program selection options before you register for your first semester. They will also work with you to ensure that your courses are all eligible for financial aid.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
Step 6: Who Are You?

**Student ID:**
Go to the library in Dellinger Hall to get your free student ID photo taken. This ID will give you access to SWCC library services, bookstore purchases, and student discounts with area retailers. This will also be required if you have to take tests in the Testing Center, located in Dellinger Hall, Room 107.

**Parking Decal:**
Students must display a parking decal in order to park on campus. The form is available in Admissions, Tazewell Hall, Room 112 and the cost is included in your tuition and fees. Students who do not display the parking sticker may be subject to parking tickets and fines.

**Four County Transit**
For students who do not drive, bus information and schedules may be obtained in the Financial Aid Office, Room 104 in Tazewell Hall.

Step 7: Pay for Classes

If you are eligible to receive Financial Aid, you must work closely with the Financial Aid staff to ensure that you get the maximum amount of funding and that all of the required documentation is in place.

If you are not eligible to receive Financial Aid or if you have a balance due after Financial Aid has been disbursed, payments may be made online when you register, or with the Cashier in Tazewell Hall, Room 112. Please contact the Business Office for current payment plan options at 276.964.7215.

The SWCC Educational Foundation offers many scholarships for SWCC students. Visit sw.edu/scholarships/ for more information and deadlines to apply.

SWCC appreciates our service men and women. Veterans and their dependents may be entitled to various benefits. Please contact the **Office of Veterans Affairs**, Tazewell Hall, Room 104 or call 276.964.7287.

Step 8: Check Your Email

You will receive emails from Admissions, Financial Aid and your Advisors on your student gmail account, accessible through MySouthwest. Be sure to check it regularly so that you are aware of any changes in finances or scheduling.

Step 9: Check your Calendar

Go to sw.edu/schedule/ to verify dates and deadlines for adding and dropping classes. Be sure to consider how dropping classes may impact your Financial Aid. We strongly recommend that you consult with your advisor prior to making any schedule changes.

Step 10: Get your Books

You may purchase your books from the SWCC bookstore or from any bookseller. If you have pending financial aid, you can ‘charge’ your books to that aid, but only in the on-campus store.

You can visit the SWCC Bookstore in Buchanan Hall, room 180 with your Student ID and a copy of your schedule. Please visit the website to verify hours of operation and to view dates for financial aid charges.

Please retain all receipts, as refunds will not be allowed without a receipt. Remember - if you drop classes and your financial aid is decreased, you will be responsible for any balance previously covered by financial aid.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
NUMBERS TO CALL FOR ASSISTANCE

Admissions Office ...................................................... 276-964-7238
Bookstore ............................................................... 276-964-7217
Business, Engineering & Industrial Technology Division .... 276-964-7277
Business Office – Tuition ........................................... 276-964-7215
Campus Police ........................................................... 276-964-7221
Computer Support Services ........................................ 276-964-7767
Dean of Students Success ........................................... 276-964-7677
Disability Services ...................................................... 276-964-7314
Educational Foundation (Scholarships) ......................... 276-964-7351
Financial Aid ............................................................. 276-964-7724
Health Technologies, Humanities, Mathematics, Natural
Science, & Social Science Division .............................. 276-964-7340
Learning Assistance Center ......................................... 276-964-7674
Library Circulation Desk ............................................. 276-964-7265
Student Success ......................................................... 276-964-7675
Tutoring/Student Support Services ................................ 276-964-7624
Veterans Affairs ......................................................... 276-964-7287
Vice President of Academic & Student Services ............. 276-964-7200
VPT Testing ............................................................... 276-964-7706
SWCC Switchboard ................................................... 276-964-2555
SWCC Switchboard – Toll Free ................................... 1-855-877-3944
Workforce Solutions .................................................... 276-964-7244

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
PROGRAMS FOR TRANSFER
Associate of Arts & Science (AA&S)

These programs, leading to the Associate in Arts and Sciences Degree, are merely guides for students. These outlines suggest a sequence in which the various courses may be taken. Students may select their own courses and sequences, but should adhere to the requirements for graduation.

- Business Administration ................................................................. Page 09
  Specialization: Outdoor Leadership .................................................. Page 10
- Education .......................................................................................... Page 11
  Specialization: Pre-Teacher Education ............................................. Page 12
- Engineering ....................................................................................... Page 13
  Specialization: Software Engineering .............................................. Page 14
- General Studies ................................................................................ Page 15
  Specialization: Agribusiness .............................................................. Page 16
  Specialization: Appalachian Studies ............................................... Page 17
  Specialization: Fine Arts ................................................................. Page 18
  Specialization: Liberal Arts ............................................................... Page 19
  Specialization: Music ...................................................................... Page 20
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- Science .............................................................................................. Page 22
  Specialization: Geology & Environmental Science ......................... Page 23
  Specialization: Pre-Medical .............................................................. Page 24

CAREER & TECHNICAL PROGRAMS
Associate of Applied Science Degree (AAS)

These programs are designed to serve students who are planning to enter their chosen vocation at the semi-professional level at the completion of a program, or those who plan to use the educational experiences attained to prepare for advancement in the field of present employment. Programs of study are developed with the assistance of advisory committees representing business and industry and survey information that has enabled the College to identify area manpower needs.

- Business Technology
  Accounting .......................................................................................... Page 26
  Specialization Insurance ..................................................................... Page 27
  Administrative Support Technology .................................................. Page 28
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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
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Information Systems Technology............................................................... Page 30
Management......................................................................................... Page 31

CAREER & TECHNICAL PROGRAMS (continued)
Associate of Applied Science Degree (AAS)

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Advanced Manufacturing ........................................................................ Page 32
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  Specialization: Alternative Energy Technology .................................. Page 36
  Specialization: Environmental Health and Safety ............................... Page 37

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Emergency Medical Services Technology .............................................. Page 38
Registered Nursing ................................................................................ Page 39
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  Specialization: Early Childhood Education ........................................ Page 43
  Specialization: Gerontology ................................................................. Page 44
  Specialization: Mental Health ............................................................. Page 45
  Specialization: Substance Abuse ....................................................... Page 46
Early Childhood Development .............................................................. Page 47

Public Service Technology
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  Specialization: Emergency Management & Preparedness ................ Page 49

DIPLOMA PROGRAMS
Diploma programs are generally two years in length. They are designed to
prepare students for employment in a given occupational area.

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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
CERTIFICATE PROGRAMS

Certificates are designed to prepare students for initial employment, retraining for new skills, or for advancement within a given vocation.

Arts & Crafts Production .................................................................Page 53
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General Education ...........................................................................Page 55
Health Sciences .................................................................................Page 56
Heating, Ventilation, and Air Conditioning ....................................Page 57
Human Services Technology ............................................................Page 58
Law Enforcement ...............................................................................Page 59
Legal Studies .....................................................................................Page 60
Practical Nursing ...............................................................................Page 61
Substance Abuse Rehabilitation Counselor ......................................Page 62

CAREER STUDIES CERTIFICATE (CSC)

The Career Studies Certificate is in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, re-training, and investigating career possibilities.

Advanced Studies in Science.............................................................Page 64
Adventure Tourism ...........................................................................Page 64
Appalachian Studies .........................................................................Page 65
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Bookkeeping .......................................................................................Page 67
Carpentry ...........................................................................................Page 67
Computer Repair Technician ............................................................Page 68
Computed Tomography ......................................................................Page 68
Crime Scene Technology .................................................................Page 69
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Cybersecurity .....................................................................................Page 70
Early Childhood Education ..............................................................Page 70
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Electrical Installation .........................................................................Page 71
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CAREER STUDIES CERTIFICATE (CSC) (continued)

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Renewable Energy & Energy Efficiency ............................. Page 89
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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
## BUSINESS ADMINISTRATION

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Arts and Sciences (AA & S)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 61

**Program Purpose:** TRANSFER

**Program Code:** 216-01

### PROGRAM COURSE REQUIREMENTS

#### First Semester (17 Credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>___</td>
<td>Science I with lab*</td>
<td>4</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics**</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Introduction to Business OR Elective</td>
<td>3</td>
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#### Second Semester (14 Credits)

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<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>___</td>
<td>Science II with lab*</td>
<td>4</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics**</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
<td>1</td>
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#### Third Semester (16 Credits)

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<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG</td>
<td>Literature Elective</td>
<td>3</td>
</tr>
<tr>
<td>HIS 101</td>
<td>History of Western Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 121</td>
<td>United States History I</td>
<td>3</td>
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</table>

#### Fourth Semester (14 Credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HIS 102</td>
<td>History of Western Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>HIS 122</td>
<td>United States History II</td>
<td>3</td>
</tr>
<tr>
<td>ENG</td>
<td>Literature Elective</td>
<td>3</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

### Program Notes:

* Biology 101-102, Chemistry 111-112, Geology 105-106, or Physics 201-202. Check with your advisor.

** Mathematics requirements may vary greatly from one transfer institution to another. Check with your advisor or transfer institution for proper mathematics courses to be taken. Available courses include MTH 151, MTH 152, MTH 163, MTH 164, MTH 271, MTH 173, MTH 174, MTH 240.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
BUSINESS ADMINISTRATION
Specialization: Outdoor Leadership

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts and Sciences (AA & S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 61
Program Purpose: TRANSFER
Program Code: 216-02

PROGRAM COURSE REQUIREMENTS
First Semester (17 Credits)
- ENG 111 College Composition I (3 credits)
- Science I with lab* (4 credits)
- MTH Mathematics** (3 credits)
- ITE 115 Introduction to Computer Applications & Concepts (3 credits)
- SDV 100 College Success Skills (1 credit)
- RPK 100 Introduction to Recreation, Parks & Leisure Services (3 credits)

Second Semester (15 Credits)
- CST 100 Principles of Public Speaking (3 credits)
- Science II with lab* (4 credits)
- ENG 112 College Composition II (3 credits)
- MTH Mathematics** (3 credits)
- HLT/PED Health or Physical Education Elective (1 credit)
- RPK 170 Recreational Backpacking*** (1 Credit)

Third Semester (15 Credits)
- RPK 141 Leadership and Supervision (3 credits)
- RPK 103 Preparation for Wilderness Adventure (1 credit)
- RPK 140 Land Use Ethics (1 credit)
- ECO 201 Principles of Macroeconomics (3 credits)
- ENG Literature Elective (3 credits)
- HIS History of Western Civilization I (3 credits) OR
  HIS 121 United States History I (3 credits)
- RPK 150 Mountain Biking*** (1 credit)

Fourth Semester (14 Credits)
- RPK 125 Resource Interpretation and Education (3 credits)
- RPK 151 Orienteering (1 credit)
- ECO 202 Principles of Microeconomics (3 credits)
- HIS History of Western Civilization II (3 credits) OR
  HIS 122 United States History II (3 credits)
- ENG Literature Elective (3 credits)
- HLT/PED Health or Physical Education Elective (1 credit)

Program Notes:
* Biology 101-102, Chemistry 111-112, Geology 105-106, or Physics 201-202. Check with your advisor.
** Mathematics requirements may vary greatly from one transfer institution to another. Check with your advisor or transfer institution for proper mathematics courses to be taken. Available courses include MTH 151, MTH 152, MTH 163, MTH 164, MTH 271, MTH 173, MTH 174, MTH 240.
*** Or division approval
EDUCATION

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 63
Program Purpose: TRANSFER
Program Code: 642-01

PROGRAM COURSE REQUIREMENTS
First Semester (17 Credits)
   ___ ENG 111 College Composition I (3 credits)
   ___ SDV 101 Orientation to Education (1 credits)
   ___ HIS United States History I (HIS 121 or 101) (3 credits)
   ___ MTH Mathematics (MTH 151 or 163)** (3 credits)
   ___ ITE 115 Introduction to Computer Applications & Concepts (3 credits)
   ___ NAS Natural Science with Lab** (4 credits)

Second Semester (16 Credits)
   ___ ENG 112 College Composition II (3 credits)
   ___ HIS History II (HIS 122 or 102) (3 credits)
   ___ MTH Mathematics (MTH152 or 164 or 240)** (3 credits)
   ___ NAS Natural Science with Lab (4 credits)
   ___ EDU 200 Introduction to Teaching (3 credits)

Third Semester (15 Credits)
   ___ ENG Literature (ENG 241 or 243 or 251)** (3 credits)
   ___ HLT 110 Concepts of Personal & Community Health (3 credits)
   ___ ELECTIVE Social Science Elective** (3 credits)
   ___ ELECTIVE Arts & Humanities Elective** (3 credits)
   ___ ELECTIVE Arts & Humanities Elective** (3 credits)

Fourth Semester (15 Credits)
   ___ ENG Literature (ENG 242 or 244 or 252)** (3 credits)
   ___ ELECTIVE Arts & Humanities Elective** (3 credits)
   ___ CST 100 Principles of Public Speaking (3 credits)
   ___ ELECTIVE Social Sciences Elective**(3 credits)
   ___ ELECTIVE Elective** (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
* "C" in all English Courses       · Pass Praxis I Exam · 2.5 Cumulative GPA
* All education majors should take PRAXIS I during EDU 200.
** Electives: Determine transfer institution’s requirements prior to selection.
Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
Natural Science: BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106.
Social Science: ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, PSY 231-232; SOC 200; GEO 200, GEO 210.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
EDUCATION - Specialization: Pre-Teacher Education

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 62
Program Purpose: TRANSFER
Program Code: 624-02

PROGRAM COURSE REQUIREMENTS

First Semester (15 Credits)
- **ENG 111** College Composition I (3 credits)
- **MTH** Mathematics (MTH 151 or 163)** (3 credits)
- **HIS 121** United States History I (3 credits)
- **ITE 115** Introduction to Computer Applications & Concepts (3 credits)
- **SDV 101** Orientation to Education (1 credits)
- **HLT** Health/Wellness (2 credits)

Second Semester (15 Credits)
- **ENG 112** College Composition II (3 credits)
- **MTH** Mathematics (MTH 152 or 240) ** (3 credits)
- **HIS 122** United States History II (3 credits)
- **PLS 135** American National Politics (3 credits)
- **ELECTIVE** Humanities Elective** (3 credits)

Take the Praxis I Exam*

Third Semester (16 Credits)
- **CST 110** Introduction to Speech Communication (3 credits)
- **HIS** History of Western Civ. I or II (HIS 101 or HIS 102) (3 credits)
- **EDU 200** Introduction to Teaching* (3 credits)
- **ECO** Principles of Economics I or II (ECO 201 or ECO 202) (3 credits)
- **BIO 101** General Biology I (4 credits)

Fourth Semester (16 Credits)
- **GEO 210** People and the Land: An Intro. To Cultural Geography (3 credits)
- **BIO 102** General Biology II (4 credits)
- **ELECTIVE** Humanities Elective** (3 credits)
- **ELECTIVE** Elective ** (3 credits)
- **ENG** Literature Elective** (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
*C* in all English Courses Pass Praxis I Exam 2.5 Cumulative GPA
* All education majors should take PRAXIS I during EDU 200.
** Electives: Determine transfer institution’s requirements prior to selection.
Natural Science: BIO 101-102, CHM 111-112 PHY 201-202 GOL 105-106

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ENGINEERING

Program Length:
2 years (4 semesters)

Academic Awards:
Associate of Arts and Sciences (AA & S)

Special Program Admission Required:
Competency in English and Math Essentials

Total Credit Hours Required:
68

Program Purpose:
TRANSFER

Program Code:
836-01

PROGRAM COURSE REQUIREMENTS

First Semester (18 Credits)

__ MTH 173  Calculus with Analytic Geometry I (5 credits)
__ CHM 111  College Chemistry I (4 credits)
__ EGR 120  Introduction to Engineering (2 credits)
__ SDV 100  College Success Skills (1 credit)
__ ELECTIVE Social Science Elective** (3 credits)
__ ENG 111  College Composition I (3 credits)

Second Semester (16 Credits)

__ MTH 174  Calculus with Analytic Geometry II (4 credits)
__ EGR 115  Engineering Graphics (2 credits)
__ HLT/PED Health or Physical Education Elective (1 credit)
__ ELECTIVE Social Science Elective** (3 credits)
__ ENG 112  College Composition II (3 credits)
__ ELECTIVE Humanities Elective* (3 credits)

Third Semester (17 Credits)

__ MTH 277  Vector Calculus (4 credits)
__ PHY 241  University Physics I (4 credits)
__ ELECTIVE Approved Engineering Elective*** (3 credits)
__ ELECTIVE Approved Engineering Elective*** (3 credits)
__ MTH 285  Linear Algebra (3 credits)

Fourth Semester (17 Credits)

__ MTH 279  Ordinary Differential Equations (4 credits)
__ PHY 242  University Physics II (4 credits)
__ ELECTIVE Approved Engineering Elective*** (3 credits)
__ ELECTIVE Approved Engineering Elective*** (3 credits)
__ ELECTIVE Humanities Elective* (3 credits)

Program Notes:

*Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244, 251, 252, 257, 279; REL 200, 210, 230, 246.

**Social Science Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ECO 201, 202; HIS 101, 102, 121, 122, 266, 269, 277; PLS 211, 212; PSY 200, 231, 232, 255; SOC 200, 215, 268; GEO 200, 210.

ENGINEERING - Specialization: Software Engineering

<table>
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<tr>
<th>Program Length:</th>
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<tbody>
<tr>
<td>Academic Awards:</td>
<td>Associate of Arts and Sciences (AA &amp; S)</td>
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<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
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<td>Total Credit Hours Required:</td>
<td>67</td>
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<td>Program Code:</td>
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**PROGRAM COURSE REQUIREMENTS**

**First Semester (18 Credits)**

- **MTH 173**  Calculus with Analytic Geometry I (5 credits)
- **CHM 111**  College Chemistry I (4 credits)
- **EGR 120**  Introduction to Engineering (2 credits)
- **SDV 100**  College Success Skills (1 credit)
- **ELECTIVE** Social Science Elective** (3 credits)
- **ENG 111**  College Composition I (3 credits)

**Second Semester (16 Credits)**

- **MTH 174**  Calculus with Analytic Geometry II (4 credits)
- **EGR 115**  Engineering Graphics (2 credits)
- **ITP 100**  Software Design (3 Credits)
- **ELECTIVE** Social Science Elective** (3 credits)
- **ENG 112**  College Composition II (3 Credits)
- **HLT/PED** Health or Physical Education Elective (1 credit)

**Third Semester (17 Credits)**

- **MTH 277**  Vector Calculus (4 credits)
- **PHY 241**  University Physics I (4 credits)
- **EGR 125**  Introduction to Engineering Methods (3 credits)
- **ITP 120**  Java Programming I (3 credits)
- **MTH 285**  Linear Algebra (3 credits)

**Fourth Semester (16 Credits)**

- **MTH 240**  Statistics*** (3 credits)
- **PHY 242**  University Physics II (4 credits)
- **EGR 206**  Engineering Economy (3 credits)
- **ELECTIVE** Humanities Elective* (3 credits)
- **ELECTIVE** Humanities Elective* (3 credits)

**Program Notes:**

*Humanities Electives*: Students should consult with their advisor or transfer institution for proper section of electives. Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244, 251, 252, 257, 279; REL 200, 210, 230, 246.

**Social Science Electives**: Students should consult with their advisor or transfer institution for proper section of electives. Typical electives include: ECO 201, 202; HIS 101, 102, 121, 122, 266, 269, 277; PLS 211, 212; PSY 200, 231, 232, 255; SOC 200, 215, 258; GEO 200, 210.

***Students may substitute MTH 279 (Ordinary Differential Equations) based on program adviser or transfer institution’s recommendations.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# GENERAL STUDIES

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Arts & Science (AA&S)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 61

**Program Purpose:** TRANSFER

**Program Code:** 697

## PROGRAM COURSE REQUIREMENTS

**First Semester (15 Credits)**
- ENG 111 College Composition I (3 credits)
- SDV 100 College Success Skills (1 credits)
- HIS History (HIS 121 or 101) (3 credits)
- MTH Mathematics (MTH 151 or 163) (3 credits)
- HLT/PED Health or Physical Education (1 credits)
- NAS Natural Science with Lab* (4 credits)

**Second Semester (16 Credits)**
- ENG 112 College Composition II (3 credits)
- HIS History (HIS 122 or 102) (3 credits)
- MTH Mathematics (MTH 152 or 164) (3 credits)
- NAS Natural Science with Lab* (4 credits)
- ELECTIVE Elective** (3 credits)

**Third Semester (15 Credits)**
- ENG Literature (ENG 241 or 243) (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- ELECTIVE Humanities or Social Sciences Elective*** (3 credits)
- ELECTIVE Elective** (3 credits)
- ELECTIVE Elective** (3 credits)

**Fourth Semester (15 Credits)**
- ENG Literature (ENG 242 or 244) (3 credits)
- SOC 200 Principles of Sociology (3 credits)
- ELECTIVE Humanities or Social Sciences Elective*** (3 credits)
- CST 100 Principles of Public Speaking (3 credits)
- ELECTIVE Elective** (3 credits)

**Program Notes:**

1 Developmental coursework may require additional semesters to complete program.

2 Both PSY 200 (Principles of Psychology) and SOC 200 (Principles of Sociology) are required for this program.

*BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, GOL 105-106 may be used to fulfil requirements.

**Determine transfer institution's requirements prior to selection.

***Humanities Electives: PHI 101-102; ART 101-102; ENG 241-242; ENG 243-244, MUS 121-122, SPA 101-102, 201-202; FRE 101-102, 201-202, REL 230.

***Social Science Electives: ECO 201-202; PLS 211-212; PSY 200, PSY 231-232, HIS 101-102, GEO 200, GEO 210.
GENERAL STUDIES – Agribusiness

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 61
Program Purpose: TRANSFER
Program Code: 697-07

PROGRAM COURSE REQUIREMENTS
First Semester (15 Credits)

- ENG 111 College Composition I1 (3 credits)
- SDV 100 College Success Skills (1 credits)
- AGR Agribusiness Elective*** (3 credits)
- MTH Mathematics (MTH 151 or 163)1** (3 credits)
- HLT/PED Health or Physical Education (1 credits)
- NAS Natural Science with Lab* (4 credits)

Second Semester (16 Credits)

- ENG 112 College Composition II (3 credits)
- HIS History (HIS 121 or 101) or ECO 201 (3 credits)
- MTH Mathematics (MTH 152 or 164) ** (3 credits)
- NAS Natural Science with Lab* (4 credits)
- AGR Agribusiness Elective*** (3 credits)

Third Semester (15 Credits)

- ENG Literature (ENG 241 or 243) ** (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- ART 101 History & Appreciation of Art I (3 credits)
- AGR Agribusiness Elective*** (3 credits)
- AGR Agribusiness Elective*** (3 credits)

Fourth Semester (15 Credits)

- ENG Literature (ENG 242 or 244) ** (3 credits)
- HIS(ECO) History (HIS 122 or 102) or ECO 202 (3 credits)
- SOC 200 Principles of Sociology (3 credits)
- CST 100 Principles of Public Speaking (3 credits)
- AGR Agribusiness Elective*** (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
2 Both PSY 200 (Principles of Psychology) and SOC 200 (Principles of Sociology) are required for this program.
*BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, GOL 105-106 may be used to fulfill requirements.
**Determine transfer institution’s requirements prior to selection.
***Agribusiness Electives: AGR 141, AGR 142, AGR 143, AGR 144, AGR 205, AGR 231, AGR 232, AGR 233, AGR 241, AGR 242, AGR 244
**GENERAL STUDIES – Appalachian Studies**

<table>
<thead>
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<th>Program Length:</th>
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<td>Program Purpose:</td>
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**PROGRAM COURSE REQUIREMENTS**

First Semester (15 Credits)

- ENG 111 College Composition I (3 credits)
- SDV 100 College Success Skills (1 credits)
- HIS History (HIS 121 or 101) (3 credits)
- MTH Mathematics (MTH 151 or 163) (3 credits)
- HLT/PED Health or Physical Education (1 credits)
- NAS Natural Science with Lab* (4 credits)

Second Semester (16 Credits)

- ENG 112 College Composition II (3 credits)
- HIS History (HIS 122 or 102) (3 credits)
- MTH Mathematics (MTH 152 or 164) (3 credits)
- NAS Natural Science with Lab* (4 credits)
- HIS 205 Local History of the Appalachian Region (3 credits)

Third Semester (15 Credits)

- ENG Literature (ENG 241, 243, or 251) (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- ENG 278 Appalachian Literature (3 credits)
- ELECTIVE Elective** (6 credits)

Fourth Semester (15 Credits)

- ENG Literature (ENG 241, 243, or 251) (3 credits)
- SOC 200 Principles of Sociology (3 credits)
- SOC 295 Topics in Appalachian Social Problems (3 credits)
- CST 100 Principles of Public Speaking (3 credits)
- ELECTIVE Elective** (3 credits)

**Program Notes:**

1 Developmental coursework may require additional semesters to complete program.

**Arts & Humanities:** PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

**Natural Science:** BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106.

**Social Science:** ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, PSY 231-232; SOC 200; GEO 200, GEO 210.

**Elective:** Determine transfer institution’s requirements prior to selection

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
## GENERAL STUDIES – Fine Arts

| Program Length: | 2 years (4 semesters) |
| Academic Awards: | Associate of Arts & Science (AA&S) |
| Special Program Admission Required: | Competency in English and Math Essentials |
| Total Credit Hours Required: | 60 |
| Program Purpose: | TRANSFER |
| Program Code: | 697-02 |

### PROGRAM COURSE REQUIREMENTS

#### First Semester (16 Credits)

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<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3 credits</td>
</tr>
<tr>
<td>ART 121</td>
<td>Drawing I</td>
<td>3 credits</td>
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<tr>
<td>MTH 151 or 163</td>
<td>Mathematics</td>
<td>3 credits</td>
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<tr>
<td>ART 201</td>
<td>History of Art I</td>
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<tr>
<td>ELECTIVE</td>
<td>Humanities Elective***</td>
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<tr>
<td>SDV 100</td>
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#### Second Semester (13 Credits)

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<td>ENG 112</td>
<td>College Composition II</td>
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<tr>
<td>ART 122 or ART 231</td>
<td>Art I or II</td>
<td>3 credits</td>
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<tr>
<td>MTH 152 or 164</td>
<td>Mathematics</td>
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<td>ELECTIVE</td>
<td>Art Elective**</td>
<td>3 credits</td>
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<td>HLT/PED</td>
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#### Third Semester (17 Credits)

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>NAS</td>
<td>Natural Science with Lab*</td>
<td>4 credits</td>
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<tr>
<td>ART 131</td>
<td>Design I</td>
<td>3 credits</td>
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<tr>
<td>ART 283</td>
<td>Computer Graphics I</td>
<td>4 credits</td>
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<tr>
<td>HIS</td>
<td>History (HIS 121 or 101)</td>
<td>3 credits</td>
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<tr>
<td>SOC 200</td>
<td>Principles to Sociology²</td>
<td>3 credits</td>
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#### Fourth Semester (14 Credits)

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<th>Course Code</th>
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<tbody>
<tr>
<td>NAS</td>
<td>Natural Science with Lab*</td>
<td>4 credits</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Art Elective**</td>
<td>3 credits</td>
</tr>
<tr>
<td>HIS</td>
<td>History (HIS 122 or 102)</td>
<td>3 credits</td>
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<tr>
<td>PSY 200</td>
<td>Principles of Psychology²</td>
<td>3 credits</td>
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<tr>
<td>PED</td>
<td>Physical Education Elective</td>
<td>1 credit</td>
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### Program Notes:

1. Developmental coursework may require additional semesters to complete program.
2. Both PSY 200 (Principles of Psychology) and SOC 200 (Principles of Sociology) are required for this program.
*Students may select 8 credits from: BIO 101-102, CHM 111-112, NAS 131-132, PHY 201-202, GOL 105-106.

***Suggested Humanities Electives: PHI 101-102; MUS 121-122, CST 100, SPA 101-102, 201-202; FRE 101-102, 201-202;
GENERAL STUDIES – Liberal Arts

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 61
Program Purpose: TRANSFER
Program Code: 697-06

PROGRAM COURSE REQUIREMENTS

First Semester (16 Credits)
- ENG 111 College Composition I¹ (3 credits)
- SDV 100 College Success Skills (1 credit)
- MTH Mathematics (MTH 151 or 163)¹ (3 credits)
- Beginning Foreign Language (4 credits)
- HLT/PED Health or Physical Education (1 credit)
- NAS Natural Science with Lab* (4 credits)

Second Semester (15 Credits)
- ENG 112 College Composition II (3 credits)
- MTH Mathematics (MTH 152 or 164) (3 credits)
- Beginning Foreign Language (4 credits)
- NAS Natural Science with Lab* (4 credits)
- HLT/PED Health or Physical Education (1 credit)

Third Semester (15 Credits)
- ENG English (ENG 241, 243, or 251) * (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- HIS History (HIS 121 or 101) (3 credits)
- Interm. Foreign Language (3 credits)
- ELECTIVE Humanities or Social Science Elective* (3 credits)

Fourth Semester (15 Credits)
- ENG English (ENG 242, 244 or 252) * (3 credits)
- SOC 200 Principles of Sociology (3 credits)
- Interm. Foreign Language (3 credits)
- HIS History (HIS 122 or 102) (3 credits)
- ELECTIVE Humanities or Social Science Elective* (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
Arts & Humanities: PHI 101-102; ART 101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
Natural Science*: BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106.
Social Science: ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, PSY 231-232; SOC 200; GEO 200, GEO 210.
**Determine transfer institution’s requirements prior to selection.
Note: Students having completed three or more years of foreign language in high school with a “C” or better average may petition for credit by experience or credit by exam. It is recommended that students receiving credit by experience take humanities electives to meet the requirements of the transfer institution. Please see your advisor for details.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
GENERAL STUDIES – Music

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 61
Program Purpose: TRANSFER
Program Guide: 697-05

PROGRAM COURSE REQUIREMENTS

First Semester (16 Credits)
____ ENG 111 College Composition I (3 credits)
____ SDV 100 College Success Skills (1 credit)
____ MUS 111 Music Theory I (4 credits)
____ MTH  Mathematics (MTH 151 or 163)** (3 credits)
____ MUS  Class Piano I (2 credits)
____ ELECTIVE Elective (3 credits)

Second Semester (15 Credits)
____ ENG 112 College Composition II (3 credits)
____ MTH  Mathematics (MTH 152, 164 or 240) (3 credits)
____ MUS 112 Music Theory II (4 credits)
____ MUS 142 Class Piano II (2 credits)
____ ELECTIVE Elective (3 credits)

Third Semester (16 Credits)
____ NAS  Natural Science with Lab * (4 credits)
____ MUS 221 History of Music (3 credits)
____ HIS  History (HIS 121 or 101) (3 credits)
____ ELECTIVE Humanities or Social Science Elective (3 credits)
____ SOC 200 Principles of Sociology (3 credits)

Fourth Semester (14 Credits)
____ NAS  Natural Science with Lab * (4 credits)
____ HIS  History (HIS 122 or 102) (3 credits)
____ PED/HLT Physical Education or Health (1 credit)
____ PSY 200 Principles of Psychology2 (3 credits)
____ ELECTIVE Humanities or Social Science Elective (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
Natural Science*: BIO 101-102; CHM 111-112; PHY 201-202; GOL 105-106 may be used to fulfill requirements.
**Determine transfer institution’s requirements prior to selection.
Suggested Electives: MUS 121/122, MUS 137/237, MUS 149/249, MUS 211/212, MUS 241/242, MUS 222

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
**GENERAL STUDIES – Psychology**

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Arts & Science (AA&S)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 61

**Program Purpose:** TRANSFER

**Program Code:** 697-03

### PROGRAM COURSE REQUIREMENTS

**First Semester (15 Credits)**
- ENG 111 College Composition I\(^1\) (3 credits)
- SDV 100 College Success Skills (1 credit)
- PSY 200 Principles of Psychology (3 credits)
- MTH Mathematics (MTH 151 or 163)\(^1\) (3 credits)
- HLT/PED Health or Physical Education Elective (1 credit)
- BIO 101 General Biology I (4 credits)

**Second Semester (16 Credits)**
- ENG 112 College Composition II (3 credits)
- ITE 115 Introduction to Computer Applications & Concepts (3 credits)
- MTH Mathematics (MTH 152 or 164) (3 credits)
- BIO 102 General Biology II (4 credits)
- ELECTIVE Social Science Elective** (3 credits)

**Third Semester (15 Credits)**
- ENG Literature (ENG 241, 243 or 251)* (3 credits)
- HIS History (HIS 121 or 101) (3 credits)
- MTH 240 Statistics (3 credits)
- PSY 231 Life Span Human Development I (3 credits)
- Humanities or Social Science Elective** (3 credits)

**Fourth Semester (15 Credits)**
- ENG Literature (ENG 242, 244 or 252)* (3 credits)
- HIS History (HIS 122 or 102) (3 credits)
- PSY 232 Life Span Human Development II (3 credits)
- ELECTIVE Elective** (3 credits)
- CST 100 Principles of Public Speaking (3 credits)

**Program Notes:**
\(^1\) Developmental coursework may require additional semesters to complete program.

* Determine transfer institution’s requirements prior to selection.

**Arts & Humanities:** PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

**Social Science:** ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, PSY 231-232; SOC 200; GEO 200, GEO 210

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
SCIENCE

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Arts & Science (AA&S)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 61
Program Purpose: TRANSFER
Program Code: 881-01

PROGRAM COURSE REQUIREMENTS

First Semester (14 Credits)

    ____ ENG 111 College Composition I 1 (3 credits)
    ____ HIS History (HIS 101 or 121) (3 credits)
    ____ MTH 163 Pre-Calculus (3 credits)
    ____ SDV 101 Orientation to Science (1 credit)
    ____ Science with Lab**** (4 credits)

Second Semester (17 Credits)

    ____ ENG 112 College Composition II (3 credits)
    ____ HIS History (HIS 102 or 122) (3 credits)
    ____ MTH 271 Calculus (3 credits)
    ____ HLT/PED Health or Physical Education (1 credit)
    ____ ITE 115 Introduction to Computer Applications & Concepts
        OR Approved Elective (3 credits)
    ____ Science with Lab**** (4 credits)

Third Semester (15 Credits)

    ____ ENG Literature (ENG 241, 243 or 251) (3 credits)
    ____ HLT/PED Health or Physical Education (2 credits)
    ____ MTH Calculus or Approved Elective in Science*/**** (3 credits)
    ____ ELECTIVE Social Science Elective** (3 credits)
    ____ ELECTIVE Science with Lab**** (4 credits)

Fourth Semester (16 Credits)

    ____ MTH 240 Statistics or Approved Elective (3 credits)
    ____ CST 100 Principles of Public Speaking (3 credits)
    ____ ELECTIVE Social Science Elective** (3 credits)
    ____ ELECTIVE Humanities Elective*** (3 credits)
    ____ Science with Lab**** (4 credits)

Program Notes:

1 Developmental coursework may require additional semesters to complete program.

Math Requirements: A minimum of 9 semester hours of mathematics is required for the SCIENCE major. This MUST include a semester of calculus. One option is MTH 163-271-240. Math Majors are encouraged to meet with their advisors for other options.

Social Science: ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, 231-232; SOC 200; GEO 200, GEO 210

Arts & Humanities: PHI 101-102; ART 101-102; MUS 111-112; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202

Science with Lab: BIO 101, 102; CHM 111, 112; CHM 241, 243, 242, 244; 260; PHY 201, 202, 241, 242

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
### SCIENCE – Geology & Environmental

- **Program Length:** 2 years (4 semesters)
- **Academic Awards:** Associate of Arts & Science (AA&S)
- **Special Program Admission Required:** Competency in English and Math Essentials
- **Total Credit Hours Required:** 66
- **Program Purpose:** TRANSFER
- **Program Code:** 881-02

### PROGRAM COURSE REQUIREMENTS

#### First Semester (15 Credits)
- ENG 111  College Composition I (3 credits)
- BIO 101  General Biology I (4 credits)
- GOL 105  Physical Geology (4 credits)
- SDV 101  Orientation to Science (1 credit)
- PLS 211  U.S. Government (3 credits)

#### Second Semester (17 Credits)
- ENG 112  College Composition II (3 credits)
- BIO 102  General Biology II (4 credits)
- BIO 270  Ecology (3 credits)
- PSY 200  General Psychology (3 credits)
- GOL 106  Historical Geology (4 credits)

#### Third Semester (17 Credits)
- MTH 271  Applied Calculus I (3 credits)
- BIO 271  Introduction to Ecological Systems (4 credits)
- HIS 101 or 121  History (3 credits)
- MTH 157  Statistics (3 credits)
- CHM 111  College Chemistry I (4 credits)

#### Fourth Semester (17 Credits)
- HUM  Humanities Elective* (6 credits)
- SOC 200  Principles of Sociology (3 credits)
- GOL 225  Environmental Geology (4 credits)
- CHM 112  College Chemistry II (4 credits)

### Program Notes:
Developmental coursework may require additional semesters to complete program.
The student who needs MTH 163 will need 69 total credits to include 9 hours of math.

*Humanities Elective: Determine transfer institution's requirements prior to selection: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.*

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# SCIENCE – Pre-Medical

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<td>Special Program Admission Required:</td>
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<td>Total Credit Hours Required:</td>
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<td>Program Code:</td>
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## PROGRAM COURSE REQUIREMENTS

### First Semester (16 Credits)
- **ENG 111** College Composition I (3 credits)
- **BIO 101** General Biology I (4 credits)
- **CHM 111** College Chemistry I (4 credits)
- **MTH 271** Applied Calculus* (3 credits)
- **HLT/PED** Health or Physical Education (1 credit)
- **SDV 101** Orientation to Science (1 credit)

### Second Semester (17 Credits)
- **ENG 112** College Composition II (3 credits)
- **BIO 102** General Biology II (4 credits)
- **CHM 112** College Chemistry II (4 credits)
- **MTH 240** Statistics (3 credits)
- **HIS** History (101 or 121) (3 credits)

### Third Semester (17 Credits)
- **ENG** Literature (ENG 241, 243 or 251) (3 credits)
- **CHM 241/243** Organic Chemistry I or Approved Science Elective**** (4 credits)
- **ITE 115** Introduction to Computer Applications & Concepts OR
  - Approved Science Elective**** (3 credits)
- **ELECTIVE** Social Science Elective** (3 credits)

### Fourth Semester (15 Credits)
- **CST 100** Principles of Public Speaking (3 credits)
- **CHM 242/244** Organic Chemistry II or Approved Science Elective**** (4 credits)
- **PHY 202** General College Physics II OR
  - Approved Science Elective**** (4 credits)
- **ELECTIVE** Humanities Elective*** (3 credits)
- **HLT/PED** Health and Physical Education (1 credit)

### Program Notes:
1. Developmental coursework may require additional semesters to complete program.
2. Discuss pre-health/medical choice with a faculty advisor (www.sw.edu/catalogs/advisor-listing/)
3. The student who needs MTH 163 will need 69 total credits to include 9 hours of math.
4. Determine transfer institution’s requirements prior to selection: ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, PSY 231-232; SOC 200; GEO 200, GEO 210
5. Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202
6. Approved Science Electives: Determine transfer institution’s requirements prior to selection: BIO 141, BIO, 142, BIO 205

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
CAREER & TECHNICAL PROGRAMS

Associate of Applied Science Degree (AAS)

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Administrative Support Technology ...........................Page 28
   Specialization Electronic Medical Records .............Page 29
Information Systems Technology ..............................Page 30
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Engineering Technology
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Computer Networking and Telecommunications ..........Page 33
Electrical /Electronics .............................................Page 34
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Health Technology
Emergency Medical Services Technology ..................Page 38
Registered Nursing .................................................Page 39
LPN to RN Bridge ..................................................Page 40
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Public Service Technology
Administration of Justice .........................................Page 48
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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# ACCOUNTING

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 65

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 203-01

## PROGRAM COURSE REQUIREMENTS

### First Semester (17 Credits)

- **ACC 211** Principles of Accounting I (4 credits)
- **ITE 140** Spreadsheet Software (3 credits)
- **ENG 111** College Composition I** (3 credits)
- **MTH 151** Mathematics for Liberal Arts* (3 credits)
- **SDV 100** College Success Skills (1 credit)
- **ITE 115** Introduction to Computer Applications and Concepts (3 credits)

### Second Semester (14 Credits)

- **ACC 212** Principles of Accounting II (4 credits)
- **ACC 124** Payroll Accounting (3 credits)
- **ELECTIVE** Social Science Elective*** (3 credits)
- **HLT/PED** Health or Physical Education Elective (1 credit)
- **ACC 215** Computerized Accounting (3 credits)

### Third Semester (17 Credits)

- **ACC 221** Intermediate Accounting I (3 credits)
- **ACC 261** Principles of Federal Taxes I (3 credits)
- **AST 205** Business Communications (3 credits)
- **BUS 200** Principles of Management (3 credits) **OR**
- **BUS 165** Small Business Management (3 credits)
- **ACC 231** Cost Accounting (3 credits)
- **MKT 170** Customer Service (2 credits)

### Fourth Semester (17 Credits)

- **ELECTIVE** Humanities/Fine Arts**** (3 credits)
- **ACC 222** Intermediate Accounting II (3 credits)
- **ACC 241** Auditing I (3 credits)
- **ACC 290** Coordinated Internship in Accounting (1 credit)
- **ACC 275** Capstone Seminar in Accounting (3 credits)
- **HLT/PED** Health or Physical Education Elective (1 credit)
- **FIN 215** Financial Management (3 credits)

## Program Notes:

* Students may substitute either MTH 163 or 271 for MTH 151.

** Students who do not wish to pursue a Baccalaureate degree in Accounting may substitute ENG 101 for ENG 111.

*** Social Science Elective: PSY, PLS, ECO, or SOC

**** Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.
# ACCOUNTING – INSURANCE

| Program Length: | 2 years (4 semesters) |
| Academic Awards: | Associate of Applied Science (AAS) |
| Special Program Admission Required: | Competency in English and Math Essentials |
| Total Credit Hours Required: | 62 |
| Program Purpose: | Not designed as a direct transfer program |
| Program Code: | 203-02 |

## PROGRAM COURSE REQUIREMENTS

### First Semester (17 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>4 credits</td>
</tr>
<tr>
<td>ISR 130</td>
<td>Principles of Insurance</td>
<td>3 credits</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition 1**</td>
<td>3 credits</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for Liberal Arts*</td>
<td>3 credits</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1 credit</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications and Concepts</td>
<td>3 credits</td>
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### Second Semester (14 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>4 credits</td>
</tr>
<tr>
<td>ACC 124</td>
<td>Payroll Accounting</td>
<td>3 credits</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Science Elective***</td>
<td>3 credits</td>
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<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
<td>1 credit</td>
</tr>
<tr>
<td>ACC 215</td>
<td>Computerized Accounting</td>
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### Third Semester (14 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3 credits</td>
</tr>
<tr>
<td>AST 205</td>
<td>Business Communications</td>
<td>3 credits</td>
</tr>
<tr>
<td>BUS</td>
<td>BUS 200 Principles of Management</td>
<td>3 credits</td>
</tr>
<tr>
<td>ISR 262</td>
<td>Personal Insurance</td>
<td>3 credits</td>
</tr>
<tr>
<td>MKT 170</td>
<td>Customer Service</td>
<td>2 credits</td>
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### Fourth Semester (17 Credits)

<table>
<thead>
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<th>Course Code</th>
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<tr>
<td>ELECTIVE</td>
<td>Humanities/Fine Arts****</td>
<td>3 credits</td>
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<tr>
<td>ISR 266</td>
<td>Life and Health Insurance</td>
<td>3 credits</td>
</tr>
<tr>
<td>ISR 260</td>
<td>Commercial Insurance</td>
<td>3 credits</td>
</tr>
<tr>
<td>ACC</td>
<td>ACC 290 Coordinated Internship in Accounting</td>
<td>1 credit</td>
</tr>
<tr>
<td>ACC 244</td>
<td>Office Administration II</td>
<td>3 credits</td>
</tr>
<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
<td>1 credit</td>
</tr>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3 credits</td>
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</table>

### Program Notes:

*Students may substitute either MTH 163 or 271 for MTH 151. **Students who do not wish to pursue a Baccalaureate degree in Accounting may substitute ENG 101 for ENG 111. ***Social Science Elective: PSY, PLS, ECO, or SOC. ****Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
## ADMINISTRATIVE SUPPORT TECHNOLOGY

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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<tbody>
<tr>
<td>Academic Awards:</td>
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<tr>
<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
</tr>
<tr>
<td>Total Credit Hours Required:</td>
<td>65</td>
</tr>
<tr>
<td>Program Purpose:</td>
<td>Not designed as a direct transfer program</td>
</tr>
<tr>
<td>Program Code:</td>
<td>298-01</td>
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</tbody>
</table>

### PROGRAM COURSE REQUIREMENTS

#### First Semester (16 Credits)
- AST 101  Keyboarding I (4 credits)
- ISR 130  Principles of Insurance (3 credits)
- MKT 170  Customer Service (2 credits)
- ENG 111  College Composition I* (3 credits)
- MTH 151  Mathematics for Liberal Arts (3 credits)
- SDV 100  College Success Skills (1 credit)

#### Second Semester (18 Credits)
- AST 102  Keyboarding II (4 credits)
- AST 234  Records & Database Management (3 credits)
- ITE 140  Spreadsheet Software (3 credits)
- PSY 120  Human Relations (3 credits)
- HLT/PED  Health or Physical Education Elective (2 credits)
- ITE 115  Introduction to Computer Applications and Concepts (3 credits)

#### Third Semester (16 Credits)
- ACC 211  Principles of Accounting I (4 credits)
- ELECTIVE  Humanities/Fine Arts** (3 credits)
- LGL 110  Introduction to Law & Legal Assistant (3 credits)
- AST 243  Office Administration I (3 credits)
- AST 205  Business Communications (3 credits)

#### Fourth Semester (15 Credits)
- ELECTIVE  Approved Technical Elective (3 credits)
- ACC 124  Payroll Accounting (3 credits)
- AST 244  Office Administration II (3 credits)
- AST 107  Editing/Proofreading Skills (3 credits)
- AST 290  Coordinated Internship In Administrative Support Technology (3 credits)

### Program Notes:
* Students who do not wish to pursue a Baccalaureate degree in Administrative Support Technology may substitute ENG 101-102 for ENG 111-112.

** Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244, 251, 252, 257, 279; REL 200, 210, 230, 246.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ADMINISTRATIVE SUPPORT TECHNOLOGY
Specialization: Electronic Medical Records

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Applied Science (AAS)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 67
Program Purpose: Not designed as a direct transfer program
Program Code: 298-04

PROGRAM COURSE REQUIREMENTS
First Semester (17 Credits)
__ AST 101 Keyboarding I (4 credits)
__ ENG 111 College Composition I* (3 credits)
__ ITE 115 Introduction to Computer Applications and Concepts (3 credits)
__ MTH 151 Mathematics for Liberal Arts (3 credits)
__ HLT 143 Medical Terminology I (3 credits)
__ SDV 100 College Success Skills (1 credits)

Second Semester (15 Credits)
__ AST 102 Keyboarding II (4 credits)
__ AST 234 Records & Database Management (3 credits)
__ HLT 144 Medical Terminology II (3 credits)
__ PSY 120 Human Relations (3 credits)
__ HLT 100 First Aid & CPR (2 credits)

Third Semester (17 Credits)
__ ELECTIVE Approved Technical Elective*** (3 credits)
__ AST 243 Office Administration I (3 credits)
__ AST 205 Business Communications (3 credits)
__ HIM 100 Introduction to Healthcare Delivery Systems (1 credit)
__ HIM 150 Health Records Management (3 credits)
__ ACC 211 Principles of Accounting I (4 credits)

Fourth Semester (18 Credits)
__ ACC 124 Payroll Accounting (3 credits)
__ AST 244 Office Administration II (3 credits)
__ AST 290 Coordinated Internship in Admin. Support Technology (3 credits)
__ ELECTIVE Humanities/Fine Arts** (3 credits)
__ HIM 233 Electronic Health Records Management (3 credits)
__ AST 107 Editing/Proofreading Skills (3 credits)

Program Notes:
* Students who do not wish to pursue a Baccalaureate degree in Administrative Support Technology may substitute ENG 101-102 for ENG 111-112.
** Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244, 251, 252, 257, 279; REL 200, 210, 230, 246.
*** See Advisor for course alternatives

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
INFORMATION SYSTEMS TECHNOLOGY

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Applied Science (AAS)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 65
Program Purpose: Not designed as a direct transfer program
Program Code: 299-01

PROGRAM COURSE REQUIREMENTS

First Semester (16 Credits)
- MTH 151 Math for Liberal Arts* (3 credits)
- ENG 111 College Composition I** (3 credits)
- SDV 100 College Success Skills (1 credit)
- ITE 115 Introduction to Computer Applications & Concepts (3 credits)
- ITN 106 Microcomputer Operating Systems (3 credits)
- ITN 107 Personal Computer Hardware & Software (3 Credits)

Second Semester (16 Credits)
- ITN 111 Server Administration (3 credits)
- ITN 112 Network Infrastructure (3 Credits)
- ITN 113 Active Directory (3 Credits)
- ITN 101 Introduction to Network Concepts (3 credits)
- MTH 152 Math for Liberal Arts II* (3 credits)
- PED/RPK Elective (1 credit)

Third Semester (16 Credits)
- ITP 100 Software Design (3 credits)
- ITP 120 Java Programming I (3 credits)
- ITD 110 Web Page Design I Basics (3 credits)
- GIS 200 Geographical Information Systems I (4 credits)
- ITD 132 Structured Query Language (3 credits)

Fourth Semester (17 Credits)
- ITP 112 Visual Basic .NET I (4 credits)
- ITP 251 Systems Analysis and Design (3 credits)
- ELECTIVE Social Science Elective*** (3 credits)
- ELECTIVE Humanities Elective**** (3 credits)
- ITP 290 Coordinated Internship in Inform. Systems Technology (1 credit)
- ITP 298 Seminar & Project in Capstone (3 credits)

Program Notes:
* Mathematics requirements may vary greatly from one transfer institution to another.
Students wishing to transfer should consult their advisor and/or transfer counselor.
** ENG 101 may substitute for ENG 111 for those not desiring to transfer the credit.
**** Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives. Typical electives include: ART 101, 102: MUS 121 or 122: ENG 241, 242, 243, 244, 251, 252, 257, 279: REL 200, 210, 230, 248.
MANAGEMENT

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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<tbody>
<tr>
<td>Academic Awards:</td>
<td>Associate of Applied Science (AAS)</td>
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<tr>
<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
</tr>
<tr>
<td>Total Credit Hours Required:</td>
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<td>Program Purpose:</td>
<td>Not designed as a direct transfer program</td>
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**PROGRAM COURSE REQUIREMENTS**

First Semester (16 Credits)

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for Liberal Arts *</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>(1 credit)</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I **</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications &amp; Concepts</td>
<td>(3 credits)</td>
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</table>

Second Semester (16 Credits)

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<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II **</td>
<td>(3 credits)</td>
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<td>Social Science Elective ***</td>
<td>(3 credits)</td>
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<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
<td>(1 credit)</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Elective ****</td>
<td>(3 credits)</td>
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Third Semester (16 Credits)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AST 205</td>
<td>Business Communications</td>
<td>(3 credits)</td>
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<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>(4 credits)</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Human Resource Management</td>
<td>(3 credits)</td>
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Fourth Semester (18 Credits)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>(4 credits)</td>
</tr>
<tr>
<td>BUS 201</td>
<td>Organizational Behavior</td>
<td>(3 credits)</td>
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<tr>
<td>BUS 204</td>
<td>Project Management</td>
<td>(3 credits)</td>
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<tr>
<td>ELECTIVE</td>
<td>Free Elective</td>
<td>(3 credits)</td>
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<tr>
<td>BUS 290</td>
<td>Coordinated Internship in Management</td>
<td>(2 credits)</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Free Elective</td>
<td>(3 credits)</td>
</tr>
</tbody>
</table>

Program Notes:

* Students may substitute a higher math for MTH 151

** Students may substitute ENG 101-102 for ENG 111-112 and AST 232 for ITE 115.

*** Social Science Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ECO 201, 202; HIS 101, 102, 121, 122, 266, 269, 277; PLS 211, 212; PSY 200, 231, 232, 255; SOC 200, 215, 268; GEO 200, 210.

**** Humanities Electives: Students should consult with their advisor or transfer institution for proper section of electives: Typical electives include: ART 101, 102; MUS 121 or 122; ENG 241, 242, 243, 244, 251, 252, 257, 279; REL 200, 210, 230, 246.
# ADVANCED MANUFACTURING

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 69

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 718-03

## PROGRAM COURSE REQUIREMENTS

### First Semester (16 Credits)

- ENG 111  College Composition I* (3 credits)
- MEC 100  Introduction to Engineering Technology (2 credits)
- MTH  MTH 163, 271, 173, or 273* (3 credits)
- SDV 100  College Success Skills (1 credit)
- SAF 127  Industrial Safety (2 credits)
- IND 160  Introduction to Robotics (2 credits)
- ETR 113  D.C & A.C Fundamentals I (3 credits)

### Second Semester (19 Credits)

- MTH  MTH 164, 271, 272, 240, 174 or 274* (3 credit)
- ITE 115  Introduction to Computer Applications & Concepts (3 credits)
- RPK  Recreation Elective (1 credit)
- MEC 155  Mechanisms (3 credits)
- MEC 165  Applied Hydraulics, Pneumatics and Hydrostatics (4 credits)
- HUM  Humanities Fine Arts Elective (3 credits)
- ETR 286  Principles of Applications of Robots (2 credits)

### Third Semester (16 Credits)

- MEC 140  Introduction to Mechatronics (2 credits)
- MAC 161  Machine Shop I (3 credits)
- MAC 162  Machine Shop II (3 credits)
- WEL 160  Gas Metal Arc Welding (3 credits)
- DRF/WEL  DRF or Welding Blueprint Reading (2 credits)
- SSS  Social Science Elective (3 credits)

### Fourth Semester (18 Credits)

- MAC 163  Machine Shop III (3 credits)
- MAC 164  Machine Shop IV (3 credits)
- MAC 121  Numerical Control I (3 credits)
- MAC 122  Numerical Control II (3 credits)
- MEC 230  Mechatronic Process Controls (3 credits)
- IND 243  Principles and Applications of Mechatronics (3 credits)

## Program Notes:

* Mathematics requirements may vary greatly from one transfer institution to another.

Students wishing to transfer should consult their advisor and/or transfer counselor.

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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
## COMPUTER NETWORKING & TELECOMMUNICATIONS

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 65

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 731-01

### PROGRAM COURSE REQUIREMENTS

#### First Semester (17 Credits)

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MTH 151</td>
<td>Math for Liberal Arts* (3 credits)</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I** (3 credits)</td>
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</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications &amp; Concepts (3 credits)</td>
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</tr>
<tr>
<td>ITN 100</td>
<td>Introduction to Telecommunications (3 credits)</td>
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<tr>
<td>ITN 154</td>
<td>Networking Fundamentals (Cisco I) (4 credits)</td>
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<tr>
<td>SDV 100</td>
<td>College Success Skills (1 credit)</td>
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#### Second Semester (17 Credits)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective (1 credit)</td>
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<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems Speaking (3 Credits)</td>
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<tr>
<td>BUS 106</td>
<td>Security Awareness for Managers (3 Credits)</td>
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<tr>
<td>ITN 107</td>
<td>Personal Computer Hardware &amp; Troubleshooting (3 Credits)</td>
<td></td>
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<tr>
<td>ITN 155</td>
<td>Routing Protocols &amp; Concepts (CISCO II) (4 credits)</td>
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</tr>
<tr>
<td>ITN 171</td>
<td>Unix 1 (3 credits)</td>
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#### Third Semester (15 Credits)

<table>
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<tbody>
<tr>
<td>ITN 113</td>
<td>Active Directory (3 credits)</td>
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<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective (1 credit)</td>
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<tr>
<td>ITN 260</td>
<td>Network Security Basics (3 credits)</td>
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<tr>
<td>ELECTIVE</td>
<td>Social Science Elective*** (3 credits)</td>
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<tr>
<td>ITN 156</td>
<td>LAN Switching &amp; Wireless (CISCO III) (4 credits)</td>
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<tr>
<td>RPK</td>
<td>RPK Elective (1 credit)</td>
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#### Fourth Semester (16 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ITN 111</td>
<td>Server Administration (3 credits)</td>
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<tr>
<td>ITN 208</td>
<td>Protocols &amp; Communications TCP/IP (4 credits)</td>
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<tr>
<td>ITN 157</td>
<td>Accessing the WAN (CISCO IV) (4 credits)</td>
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<tr>
<td>ITE 290</td>
<td>Coordinated Internship in Information Technology (1 credit)</td>
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<tr>
<td>ELECTIVE</td>
<td>Humanities/Fine Arts**** (3 credits)</td>
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<tr>
<td>ELECTIVE</td>
<td>Elective (1 credit)</td>
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### Program Notes:

* Student should take MTH 163-271 if planning to pursue a Baccalaureate Degree.
** ENG 101 may substitute for ENG 111 for those not desiring to transfer the credit.
*** Social Science Electives: PSY, PLS, ECO, or SOC
**** Humanities/Fine Arts Electives: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.
### ELECTRICAL / ELECTRONICS

**Program Length:** 2 years (4 semesters)  
**Academic Awards:** Associate of Applied Science (AAS)  
**Special Program Admission Required:** Competency in English and Math Essentials  
**Total Credit Hours Required:** 66  
**Program Purpose:** Not designed as a direct transfer program  
**Program Code:** 941-02

### PROGRAM COURSE REQUIREMENTS

#### First Semester (17 Credits)
- **MTH 163** Precalculus I** (3 credits)
- **SDV 100** College Success Skills (1 credit)
- **ENG 111** College Composition I* (3 credits)
- **ELE 140** Basic Electricity & Machinery (4 credits)
- **ETR 113** D.C & A.C. Fundamentals I (3 credits)
- **HLT/PED** Health or Physical Education Elective (1 credit)
- **SAF 127** Industrial Safety (2 credits)

#### Second Semester (17 Credits)
- **MTH 164** Precalculus II ** (3 credits)
- **ITE 115** Introduction to Computer Applications & Concepts (3 credits)
- **ETR 114** D.C & A.C. Fundamentals II (4 credits)
- **ETR 156** Digital Circuits & Microprocessor Fundamentals (4 credits)
- **ELECTIVE** Social Science Elective**** (3 credits)

#### Third Semester (17 Credits)
- **ETR 143** Devices and Applications I (3 credits)
- **ELE 233** Programmable Logic Controller System I (3 credits)
- **ELE 136** National Electric Code (Commercial) (3 credits)
- **ELE 211** Electrical Machines I (4 credits)
- **DRF 135** Electrical Electronics Blueprint Reading (2 credits)
- **IND 160** Introduction to Robotics (2 credits)

#### Fourth Semester (15 Credits)
- **ELECTIVE** Approved Technical Elective*** (3 credits)
- **ELECTIVE** Approved Technical Elective*** (3 credits)
- **ELECTIVE** Approved Technical Elective*** (3 credits)
- **ELECTIVE** Elective (3 credits)
- **ELECTIVE** Humanities/Fine Arts***** (3 credits)

### Program Notes:
*Students not planning to transfer may take ENG 100  
** Alternatives include MTH 103, MTH 104, MTH115, MTH 116, MTH 151, MTH 152, MTH 163, MTH 164, MTH 173, MTH 174, MTH 271, MTH 272 or division approval. Check with your advisor or transfer institution for the proper mathematics course sequence to be taken.  
*** Approved Technical Electives: ELE 135, ELE 177, ELE 234, ELE 245, ELE 156, ETR 144, MAC 161, MAC 162, MAC 163, MAC 164, WEL 117, WEL 124, MEC 161, MAC 121, MAC 122, AIR 134, PHY 201, PHY 202 or Division Approval  
**** Social Science Elective: PSY, PLS, ECO, or SOC  
***** Humanities/Fine Arts: Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.
# ENVIRONMENTAL MANAGEMENT

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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<tbody>
<tr>
<td>Academic Awards:</td>
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<tr>
<td>Special Program Admission Required:</td>
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<td>Total Credit Hours Required:</td>
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<tr>
<td>Program Purpose:</td>
<td>Not designed as a direct transfer program</td>
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<tr>
<td>Program Code:</td>
<td>711-01</td>
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</tbody>
</table>

## PROGRAM COURSE REQUIREMENTS

### First Semester (17 Credits)

- ENG 111 College Composition I\(^1\) (3 credits)
- MTH Mathematics (MTH 163 or 173)\(^1\) (3 credits)
- ENV 121 General Environmental Science I (4 credits)
- BUS 100 Introduction to Business (3 credits)
- SDV 100 College Success Skills (1 credit)
- ELECTIVE Elective (3 credits)

### Second Semester (17 Credits)

- ENG 112 College Composition II (3 credits)
- MTH Mathematics (MTH 164 or 274) (3 credits)
- ITE 115 Introduction to Computer Applications & Concepts (3 credits)
- GOL 105 Physical Geology (4 credits)
- FOR 105 Forest & Wildlife Ecology (4 credits)

### Third Semester (16 Credits)

- HLT/PED Health or Physical Education Elective (2 credits)
- BIO/CHM General Biology I or General Chemistry I (4 credits)
- ENG Literature Elective (3 credits)
- MTH Mathematics (MTH 273 or 275) (4 credits)
- ELECTIVE Social Science Elective* (3 credits)

### Fourth Semester (17 Credits)

- ENV 221 Natural Resource Management (4 credits)
- MTH 240 Statistics (3 credits)
- FOR 135 Wildlife & Fisheries Management (3 credits)
- BIO/CHM General Biology II or General Chemistry II (4 credits)
- ELECTIVE Humanities/Fine Arts** (3 credits)

### Program Notes:

1 Developmental coursework may require additional semesters to complete program.

* Social Science Electives: PSY, SOC, HIS, ECO, PSL, and GEO

** Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ENVIRONMENTAL MANAGEMENT  
Specialization: Alternative Energy Technology

Program Length: 2 years (4 semesters)  
Academic Awards: Associate of Applied Science (AAS)  
Special Program Admission Required: Competency in English and Math Essentials  
Total Credit Hours Required: 66  
Program Purpose: Not designed as a direct transfer program  
Program Code: 711-03

PROGRAM COURSE REQUIREMENTS

First Semester (17 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<tr>
<td>MTH</td>
<td>Mathematics (MTH 163 or 273)</td>
<td>3</td>
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<tr>
<td>ENV 121</td>
<td>General Environmental Science I</td>
<td>4</td>
</tr>
<tr>
<td>BLD 200</td>
<td>Sustainable Construction</td>
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</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
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<td>ELECTIVE</td>
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Second Semester (17 Credits)

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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics (MTH 164 or 274)</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications &amp; Concepts</td>
<td>3</td>
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<tr>
<td>GOL 105</td>
<td>Physical Geology</td>
<td>4</td>
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<tr>
<td>ENE 100</td>
<td>Conventional &amp; Alternative Energy Apps</td>
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Third Semester (16 Credits)

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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>HLT/PED</td>
<td>Health or Physical Education Elective</td>
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<tr>
<td>BIO/CHM</td>
<td>General Biology I or General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>ENG</td>
<td>Literature Elective</td>
<td>3</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics (MTH 273 or 275)</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Science Elective*</td>
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Fourth Semester (16 Credits)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 221</td>
<td>Natural Resource Management</td>
<td>4</td>
</tr>
<tr>
<td>MTH 240</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 170</td>
<td>Fundamentals of Energy Technology</td>
<td>2</td>
</tr>
<tr>
<td>BIO/CHM</td>
<td>General Biology II or General Chemistry II</td>
<td>4</td>
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<tr>
<td>ELECTIVE</td>
<td>Humanities/Fine Arts**</td>
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</table>

Program Notes:

1 Developmental coursework may require additional semesters to complete program.

* Social Science Electives: PSY, SOC, HIS, ECO, PSL, and GEO

** Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ENVIRONMENTAL MANAGEMENT
Specialization: Environmental Health and Safety

Program Length: 2 years (4 semesters)
Academic Awards: Associate of Applied Science (AAS)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 66
Program Purpose: Not designed as a direct transfer program
Program Code: 711-04

PROGRAM COURSE REQUIREMENTS
First Semester (17 Credits)
___ ENG 111 College Composition I (3 credits)
___ MTH Mathematics (MTH 163 or 273) (3 credits)
___ ENV 121 General Environmental Science I (4 credits)
___ BLD/BUS Construction Management or Principles or Management (3 credits)
___ SDV 100 College Success Skills (1 credit)
___ ELECTIVE Elective (3 credits)

Second Semester (16 Credits)
___ ENG 112 College Composition II (3 credits)
___ MTH Mathematics (MTH 164 or 173) (3 credits)
___ ITE 115 Introduction to Computer Applications & Concepts (3 credits)
___ GOL 105 Physical Geology (4 credits)
___ SAF 120 Safety and Health Standards (3 credits)

Third Semester (16 Credits)
___ HLT/PED Health or Physical Education Elective (2 credits)
___ BIO/CHM General Biology I or General Chemistry I (4 credits)
___ ENG Literature Elective (3 credits)
___ MTH Mathematics (MTH 273 or 275) (4 credits)
___ ELECTIVE Social Science Elective* (3 credits)

Fourth Semester (17 Credits)
___ ENV 221 Natural Resource Management (4 credits)
___ MTH 240 Statistics (3 credits)
___ ENV 231 Environmental Codes I (3 credits)
___ BIO/CHM General Biology II or General Chemistry II (4 credits)
___ ELECTIVE Humanities/Fine Arts** (3 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
* Social Science Electives: PSY, SOC, HIS, ECO, PSL, and GEO
** Students may choose from the following courses: Philosophy, Religion, Music Appreciation, Art Appreciation, and Foreign Languages.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# EMERGENCY MEDICAL SERVICES TECHNOLOGY

**Program Length:** 2 years (5 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 67

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 146-01

## PROGRAM COURSE REQUIREMENTS

### First Semester (Summer, 13 Credits)
- EMS 111 Emergency Medical Technician (7 credits)
- EMS 120 EMT- Basic Clinical (1 credit)
- BIO 145 Anatomy & Physiology (BIO 145)* (4 credits)
- SDV 100 College Success Skills (1 credit)

### Second Semester (Fall, 12 Credits)
- EMS 151 Introduction to Advanced Life Support (4 credits)
- EMS 152 Advanced EMT Completion (2 credits)
- EMS 153 Basic ECG Recognition (2 credits)
- EMS 170 ALS Internship I (1 credit)
- ENG 111 College Composition I (3 credits)

### Third Semester (Spring, 16 Credits)
- EMS 154 ALS Cardiac Care (2 credits)
- EMS 157 ALS Trauma Care (3 credits)
- EMS 159 ALS Special Populations (3 credits)
- EMS 172 ALS Clinical Internship II (1 credit)
- EMS 173 ALS Field Internship I (1 credit)
- EMS 173 ALS Field Internship I (1 credit)
- EMS 173 ALS Field Internship I (1 credit)
- EMS 151 Math for Liberal Arts I (3 credits)
- EMS/HLT Elective (3 credits)

### Fourth Semester (Fall, 13 Credits)
- EMS 205 Advanced Pathophysiology (4 credits)
- EMS 209 Advanced Pharmacology (4 credits)
- EMS 242 ALS Clinical Internship III (1 credit)
- EMS 243 ALS Field Internship II (1 credit)
- ELECTIVE Social Science Elective II** (3 credits)

### Fifth Semester (Spring, 13 Credits)
- EMS 201 EMS Professional Development (3 credits)
- EMS 207 Advanced Patient Assessment (3 credits)
- EMS 211 Operations (2 credits)
- EMS 244 ALS Clinical Internship IV (1 credit)
- EMS 245 ALS Field Internship III (1 credit)
- ELECTIVE Humanities Elective *** (3 credits)

**Program Notes:**

1. Developmental coursework may require additional semesters to complete program.
2. A 4-credit Anatomy & Physiology course. BIO 141-142 are recommended if the student is planning to transfer to another medically related program; otherwise, BIO 145 is recommended.
3. **Social Science** ECO 201-202; HIS 101-102; PLS 211-212; PSY 200, 231-232; SOC 200; GEO 200, GEO 210
4. Recommend PSY 230
5. **Arts & Humanities:** PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
# REGISTERED NURSING

**Program Length:** 2 years (5 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 69

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 156-01

## PROGRAM COURSE REQUIREMENTS

### First Semester (Summer, 9 Credits)

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<td>SDV 100</td>
<td>College Success Skills</td>
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<tr>
<td>MTH 126</td>
<td>Mathematics for Allied Health</td>
<td>2</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<tr>
<td>ITE 119</td>
<td>Information Literacy OR</td>
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<td></td>
<td>ITE 100 Introduction to Information Systems</td>
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### Second Semester (Fall, 14 Credits)

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<tbody>
<tr>
<td>BIO 141</td>
<td>Human Anatomy &amp; Physiology I</td>
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<tr>
<td>NUR 105</td>
<td>Nursing Skills</td>
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<tr>
<td>NUR 108</td>
<td>Nursing Principles and Concepts I</td>
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<td>NUR 136</td>
<td>Principles of Pharmacology I</td>
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<tr>
<td>NUR 226</td>
<td>Health Assessment</td>
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### Third Semester (Spring, 16 Credits)

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<tr>
<td>BIO 142</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II</td>
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<tr>
<td>NUR 109</td>
<td>Nursing Principles and Concepts II</td>
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<td>NUR 137</td>
<td>Principles of Pharmacology II</td>
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<tr>
<td>NUR 114</td>
<td>Geriatric Nursing</td>
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### Fourth Semester (Fall, 15 Credits)

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<td>PSY 231</td>
<td>Life Span Human Development</td>
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<td>ELECTIVE</td>
<td>Humanities Elective*</td>
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<tr>
<td>NUR 201</td>
<td>Psychiatric Nursing</td>
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<td>NUR 205</td>
<td>Introduction to Second Level Nursing</td>
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<tr>
<td>NUR 236</td>
<td>Principles of Pharmacology III</td>
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### Fifth Semester (Spring, 15 Credits)

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<tr>
<td>PSY 232</td>
<td>Life Span Human Development II</td>
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<td>NUR 245</td>
<td>Maternal/Newborn Nursing</td>
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<td>NUR 208</td>
<td>Acute Medical Surgical Nursing</td>
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<td>NUR 237</td>
<td>Principles of Pharmacology IV</td>
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<td>NUR 254</td>
<td>Dimensions of Professional Nursing</td>
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**Program Notes:**

1. Developmental coursework may require additional semesters to complete program.
2. Students must complete BIO 141 with a "C" or better to enroll in BIO 142.

*Humanities Electives:* ART 201, 202; ENG 241 or higher; MUS 121, 122; PHI 101; REL 230

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
Southwest Virginia Community College

LPN to RN BRIDGE

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 60

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 156-02

**PROGRAM COURSE REQUIREMENTS**

*Pre-Clinical studies must be completed before entering the program*

First Semester (17 Credits)

- __SDV 100__  College Success Skills (1 credit)
- __BIO 141__ Human Anatomy & Physiology I (4 credits)
- __BIO 142__ Human Anatomy & Physiology II (4 credits)
- __ENG 111__ College Composition I (3 credits)
- __ITE 119__ Information Literacy OR 
  ITE 100 Introduction to Information Systems (3 credits)
- __MTH 126__ Mathematics for Allied Health (2 credits)

Second Semester (Summer, 10 Credits)

- __NUR 115__ LPN to RN Transition* (6 credits)
- __NUR 136__ Principles of Pharmacology I (1 credit)
- __NUR 137__ Principles of Pharmacology II (1 credit)
- __NUR 226__ Health Assessment (2 credits)

Third Semester (Fall, 15 Credits)

- __ENG 112__ College Composition II (3 credits)
- __NUR 201__ Psychiatric Nursing (3 credits)
- __NUR 205__ Introduction to Second Level Nursing (5 credits)
- __NUR 236__ Principles of Pharmacology III (1 credit)
- __PSY 231__ Life Span Human Development I (3 credits)

Fourth Semester (Spring, 18 Credits)

- __NUR 245__ Maternal/Newborn Nursing (3 credits)
- __NUR 208__ Acute Medical Surgical Nursing (6 credits)
- __NUR 237__ Principles of Pharmacology IV (1 credit)
- __NUR 254__ Dimensions of Professional Nursing (2 credits)
- __PSY 232__ Life Span Human Development II (3 credits)
- __ELECTIVE__ Humanities Elective* (3 credits)

**Program Notes:**

1. Developmental coursework may require additional semesters to complete program.

*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.

* **Humanities Electives:** ART 201, 202; ENG 241 or higher; MUS 121, 122; PHI 101; REL 230

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
### OCCUPATIONAL THERAPY ASSISTANT

**Program Length:** 2 years (5 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 68

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 126-01

### PROGRAM COURSE REQUIREMENTS

#### First Semester (17 Credits)

- BIO 141 Human Anatomy & Physiology (4 credits)
- ENG 111 College Composition I\(^1\) (3 credits)
- HLT 143 Medical Terminology (3 credits)
- OCT 100 Introduction to Occupational Therapy (3 credits)
- PSY 230 Development Psychology (3 credit)
- SDV 100 College Success Skills (1 credit)

#### Second Semester (18 Credits)

- BIO 142 Human Anatomy & Physiology II\(^2\) (4 credits)
- OCT 201 Occupational Therapy with Psychosocial Dysfunction (3 credits)
- OCT 195 Topics in OT for Physical Dysfunction (2 credits)
- OCT 205 Therapeutic Media (2 credits)
- NAS 195 Topics in Upper Extremity Anatomy & Kinesiology (1 credit)
- ELECTIVE Humanities/ Fine Arts Elective\(^*\) (3 credits)
- ITE 115 Introduction to Computer Applications & Concepts* (3 credits)

#### Third Semester (6 Credits, Summer Semester)

- OCT 190 Coordinated Practice in Occupational Therapy I (1 credits)
- OCT 207 Therapeutic Skills (3 credits)
- OCT 220 Occupational Therapy for Adult (2 credits)

#### Fourth Semester (14 Credits)

- OCT 210 Assistive Technology in Occupational therapy (2 credits)
- OCT 202 Occupational Therapy with Physical Disabilities (4 credits)
- OCT 203 Occupational Therapy with Developmental Disabilities (4 credits)
- OCT 208 Occupational Therapy Service Management (3 credits)
- OCT 190 Coordinated Practice in Occupational Therapy II (1 credits)

#### Fifth Semester (13 Credits)

- OCT 290 Coordinated Practice in Occupational Therapy III (6 credits)
- OCT 290 Coordinated Practice in Occupational Therapy IV (6 credits)
- OCT 298 Seminar and Project in OTA (1 credit)

### Program Notes:

\(^1\) Developmental coursework may require additional semesters to complete program.

\(^2\) Students must complete BIO 141 with a “C” or better to enroll in BIO 142.

\* AST 232 or ITE 100 may substitute for ITE 115.

\** Arts & Humanities:** PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
RADIOGRAPHY

Program Length: 7 semesters
Academic Awards: Associate of Applied Science (AAS)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 72
Program Purpose: Not designed as a direct transfer program
Program Code: 172-01

PROGRAM COURSE REQUIREMENTS
First Semester (Summer, 12 Credits)
____ RAD 105 Introduction to Radiology Protection & Patient Care (3 credits)
____ SDV 100 College Success Skills (1 credit)
____ RAD 195 Topics in: Ethics, Teamwork & Professional Development (3 credits)
____ MTH 126 Mathematics for Allied Health (2 credits)
____ HLT 143 Medical Terminology (3 credits)

Second Semester (Fall, 17 Credits)
____ ENG 111 College Composition I* (3 credits)
____ BIO 141 Human Anatomy & Physiology I (4 credits)
____ RAD 110 Imaging Equipment & Protection (3 credits)
____ RAD 121 Radiographic Procedures I (4 credits)
____ PSY 230 Developmental Psychology (3 credits)

Third Semester (Spring, 15 Credits)
____ BIO 142 Human Anatomy & Physiology II2 (4 credits)
____ RAD 112 Radiologic Science II (4 credits)
____ RAD 221 Radiographic Procedures II (4 credits)

Fourth Semester (Summer, 6 Credits)
____ RAD 190 Coordinated Internship (Term II) (3 credits)
____ RAD 205 Radiation Protection & Radiobiology (3 credits)

Fifth Semester (Fall, 9 Credits)
____ RAD 290 Coordinated Internship (6 credits)
____ RAD 255 Radiographic Equipment (3 credits)

Sixth Semester (Spring, 9 Credits)
____ RAD 290 Coordinated Internship (6 credits)
____ RAD 240 Radiographic Pathology (3 credits)

Seventh Semester (Summer, 4 Credits)
____ RAD 215 Correlated Radiographic Theory (2 credits)
____ RAD 290 Coordinated Internship (Term II) (2 credits)

Program Notes:
1 Developmental coursework may require additional semesters to complete program.
2 Students must complete BIO 141 with a “C” or better to enroll in BIO 142.
* Students who wish to pursue a Baccalaureate Degree are advised to take both ENG 111-112. ENG 101 may be substituted for ENG 111, but is not a transferable course.
** Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
### HUMAN SERVICES

**Specialization: Early Childhood Education**

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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</thead>
<tbody>
<tr>
<td>Academic Awards:</td>
<td>Associate of Applied Science (AAS)</td>
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<td>Program Code:</td>
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#### PROGRAM COURSE REQUIREMENTS

**First Semester (16 Credits)**
- ENG 111 College Composition I* (3 credits)
- HMS 100 Introduction to Human Services (3 credits)
- HMS 121 Basic Counseling Skills I (3 credits)
- PSY 231 Lifespan Human Development I (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- SDV 100 College Success Skills (1 credit)

**Second Semester (18 Credits)**
- ENG 112 College Composition II (3 credits)
- ITE 115 Introduction to Computer Applications and Concepts (3 credits)
- HLT/PED PED Elective or HLT 100 (3 credits)
- MTH Mathematics (MTH 151 or 163) (3 credits)
- HMS 122 Basic Counseling Skills II (3 credits)
- PSY Elective (3 credits)

**Third Semester (15 Credits)**
- CHD 145 Teaching Art, Music & Movement to Children (3 credits)
- CHD 118 Language Arts for Young Children (3 credits)
- CHD 120 Introduction to Early Childhood Education (3 credits)
- MEN 101 Mental Health Skills Training I (3 credits)
- ELECTIVE Humanities/Fine Arts Elective** (3 credits)

**Fourth Semester (18 Credits)**
- CHD 146 Math, Science and Social Studies for Children (3 credits)
- MEN 102 Mental Health Skills Training II (3 credits)
- CHD 215 Models of Early Childhood Education Program (3 credits)
- ECO Economics (ECO 120 or ECO 201) (3 credits)
- ELECTIVE Elective (3 credits)
- HMS 190 Coordinated Internship in Early Childhood Education (3 credit)

**Program Notes:**
- Developmental coursework may require additional semesters to complete program.
- Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.
- **Arts & Humanities:** PHI 101-102; ART 101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
### HUMAN SERVICES

#### Specialization: Gerontology

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<tbody>
<tr>
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<tr>
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<tr>
<td>Program Purpose:</td>
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<tr>
<td>Program Code:</td>
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</table>

#### PROGRAM COURSE REQUIREMENTS

**First Semester (16 Credits)**

- ENG 111 College Composition I* (3 credits)
- HMS 100 Introduction to Human Services (3 credits)
- HMS 121 Basic Counseling Skills I (3 credits)
- MEN 101 Mental Health Skills Training I (3 credits)
- PSY 200 Principles of Psychology (3 credits)
- SDV 100 College Success Skills (1 credit)

**Second Semester (18 Credits)**

- ENG 112 College Composition II (3 credits)
- PSY 232 Life Span Human Development II (3 credits)
- MTH Mathematics (MTH 151 or 163) (3 credits)
- HMS 122 Basic Counseling Skills II (3 credits)
- MEN 102 Mental Health Skills II (3 credits)
- SOC 200 Principles to Sociology (3 credits)

**Third Semester (17 Credits)**

- PSY 231 Life Span Human Development (3 credits)
- HLT 100 First Aid & Cardiopulmonary Resuscitation (2 credits)
- ITE 115 Introduction to Computer Applications and Concepts (3 credits)
- HMS 231 Gerontology I (3 credits)
- SOC 268 Social Problems (3 credits)
- ELECTIVE Humanities/Fine Arts Elective** (3 credits)

**Fourth Semester (14 Credits)**

- HMS 232 Gerontology II (3 credits)
- DIT 125 Current Concepts In Diet & Nutrition (3 credits)
- MEN 245 Problems in Aging (3 credits)
- PED 116 Lifetime Fitness & Wellness (2 credits)
- HMS 190 Coordinated Clinical Practice (3 credits)

**Program Notes:**

* Developmental coursework may require additional semesters to complete program.
* Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.
**Arts & Humanities:** PHI 101-102; ART 101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
HUMAN SERVICES
Specialization: Mental Health

| Program Length: | 2 years (4 semesters) |
| Academic Awards: | Competency in English and Math Essentials |
| Special Program Admission Required: | Associate of Applied Science (AAS) |
| Total Credit Hours Required: | 66 |
| Program Purpose: | Not designed as a direct transfer program |
| Program Code: | 480-01 |

**PROGRAM COURSE REQUIREMENTS**

<table>
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<tr>
<th>Semester</th>
<th>Credits</th>
<th>Courses</th>
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<tbody>
<tr>
<td>First Semester (16 Credits)</td>
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<tr>
<td>___ ENG 111</td>
<td>College Composition I* (3 credits)</td>
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</tr>
<tr>
<td>___ HMS 100</td>
<td>Introduction to Human Services (3 credits)</td>
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</tr>
<tr>
<td>___ HMS 121</td>
<td>Basic Counseling Skills I (3 credits)</td>
<td></td>
</tr>
<tr>
<td>___ MEN 101</td>
<td>Mental Health Skills Training I (3 credits)</td>
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</tr>
<tr>
<td>___ PSY 200</td>
<td>Principles of Psychology (3 credit)</td>
<td></td>
</tr>
<tr>
<td>___ SDV 100</td>
<td>College Success Skills (1 credit)</td>
<td></td>
</tr>
<tr>
<td>Second Semester (18 Credits)</td>
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<td></td>
</tr>
<tr>
<td>___ ENG 112</td>
<td>College Composition II* (3 credits)</td>
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<tr>
<td>___ ITE 115</td>
<td>Introduction to Computer Applications and Concepts (3 credits)</td>
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<td>___ MTH</td>
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<tr>
<td>___ HMS 122</td>
<td>Basic Counseling Skills II (3 credits)</td>
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<tr>
<td>___ MEN 102</td>
<td>Mental Health Skills Training I (3 credits)</td>
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<tr>
<td>___ SOC 200</td>
<td>Principles of Sociology (3 credits)</td>
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<tr>
<td>Third Semester (17 Credits)</td>
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<td></td>
</tr>
<tr>
<td>___ PSY 231</td>
<td>Life Span Human Development I (3 credits)</td>
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<tr>
<td>___ HLT/PED</td>
<td>HLT 100 or PED Elective (2 credits)</td>
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<tr>
<td>___ PSY</td>
<td>Psychology Elective (3 credits)</td>
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<tr>
<td>___ HMS</td>
<td>Human Service Elective (3 credits)</td>
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</tr>
<tr>
<td>___ SOC 268</td>
<td>Social Problems (3 credits)</td>
<td></td>
</tr>
<tr>
<td>___ ELECTIVE</td>
<td>Humanities/Fine Arts Elective** (3 credits)</td>
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</tr>
<tr>
<td>Fourth Semester (15 Credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ PSY 232</td>
<td>Life Span Human Development II (3 credits)</td>
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</tr>
<tr>
<td>___ MEN 225</td>
<td>Counseling Techniques (3 credits)</td>
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<tr>
<td>___ PSY 215</td>
<td>Abnormal Psychology (3 credits)</td>
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<tr>
<td>____ ECO</td>
<td>Economics (ECO 120 or ECO 201) (3 credits)</td>
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<tr>
<td>____ HMS 190</td>
<td>Coordinated Internship in Mental Health** (3 credits)</td>
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</tbody>
</table>

Program Notes:

1 Developmental coursework may require additional semesters to complete program.
*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.
**Requires approval of the Human Services Advisor
***Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
**HUMAN SERVICES**
**Specialization: Substance Abuse**

**Program Length:** 2 years (4 semesters)

**Academic Awards:** Associate of Applied Science (AAS)

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 66

**Program Purpose:** Not designed as a direct transfer program

**Program Code:** 480-04

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**PROGRAM COURSE REQUIREMENTS**

**First Semester (16 Credits)**

- ENG 111  College Composition I* (3 credits)
- SOC 200  Principles of Sociology (3 credits)
- HMS 121  Basic Counseling Skills I (3 credits)
- PSY 231  Life Span Human Development I (3 credits)
- PSY 200  Principles of Psychology (3 credit)
- SDV 100  College Success Skills (1 credit)

**Second Semester (18 Credits)**

- ENG 112  College Composition II* (3 credits)
- ITE 115  Introduction to Computer Applications and Concepts (3 credits)
- MTH 151  Mathematics for the Liberal Arts1 (3 credits)
- HMS 122  Basic Counseling Skills II (3 credits)
- PSY 232  Life Span Human Development II (3 credits)
- ELECTIVE  Humanities/Fine Arts Elective*** (3 credits)

**Third Semester (17 Credits)**

- HLT/PED  HLT 100 or PED Elective (2 credits)
- HMS 141  Group Dynamics I (3 credits)
- HMS 145  Effects of Psychoactive Drugs (3 credits)
- HMS 251  Substance Abuse I (3 credits)
- PSY 120  Human Relations (3 credits)
- HMS 266  Counseling Psychology (3 credits)

**Fourth Semester (15 Credits)**

- HMS 142  Group Dynamics II (3 credits)
- HMS 252  Substance Abuse II (3 credits)
- HMS 258  Case Management & Substance Abuse (3 credits)
- ECO 201  Principles of Economics-Macroeconomics (3 credits)
- HMS 290  Coordinated Internship/Substance Abuse** (3 credits)

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**Program Notes:**

1 Developmental coursework may require additional semesters to complete program.

*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101 for ENG 111.

**Requires approval of the Human Services Advisor

***Arts & Humanities: PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.

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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# EARLY CHILDHOOD DEVELOPMENT

**Program Length:** 2 years (4 semesters)  
**Academic Awards:** Associate of Applied Science (AAS)  
**Special Program Admission Required:** Competency in English and Math Essentials  
**Total Credit Hours Required:** 67  
**Program Purpose:** Not designed as a direct transfer program  
**Program Code:** 636-03

## PROGRAM COURSE REQUIREMENTS

### First Semester (16 Credits)

<table>
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<th>Course Code</th>
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<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
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</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>CHD 120</td>
<td>Introduction to Early Childhood Education</td>
<td>3</td>
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<tr>
<td>CHD 145</td>
<td>Teaching Art, Music, and Movement to Children</td>
<td>3</td>
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<tr>
<td>PSY 231</td>
<td>Life Span Human Development I</td>
<td>3</td>
</tr>
<tr>
<td>CHD 118</td>
<td>Language Arts for Young Children</td>
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### Second Semester (18 Credits)

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<tr>
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<th>Course Title</th>
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<tr>
<td>CHD 215</td>
<td>Models of Early Childhood Education Programs</td>
<td>3</td>
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<tr>
<td>CHD 165</td>
<td>Observation &amp; Participation in Early Childhood/Primary Settings</td>
<td>3</td>
</tr>
<tr>
<td>CHD 146</td>
<td>Math, Science, and Social Studies for Children</td>
<td>3</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II*</td>
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<td>CHD 117</td>
<td>Introduction to Reading Methods</td>
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<td>HLT 135</td>
<td>Child Health &amp; Nutrition</td>
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### Third Semester (17 Credits)

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<td>MTH</td>
<td>Mathematics (MTH 151 or MTH 120)</td>
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<td>CHD 205</td>
<td>Guiding the Behavior of Children</td>
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<td>CHD 216</td>
<td>Early Childhood Programs, Schools &amp; Social Change</td>
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<tr>
<td>HLT 100</td>
<td>First Aid &amp; Cardiopulmonary Resuscitation</td>
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<td>CST 100</td>
<td>Principles of Public Speaking</td>
<td>3</td>
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<tr>
<td>ELECTIVE</td>
<td>Social/Behavior Science or Free Elective***</td>
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### Fourth Semester (16 Credits)

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<tr>
<td>CHD 265</td>
<td>Adv. Observation &amp; Participation in Early Child. /Primary Settings</td>
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<tr>
<td>CHD 166</td>
<td>Infant &amp; Toddler Programs</td>
<td>3</td>
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<tr>
<td>CHD 210</td>
<td>Introduction to Exceptional Children</td>
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<td>CHD 270</td>
<td>Administration of Childcare Program</td>
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<td>Humanities/ Fine Arts Elective**</td>
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<tr>
<td>CHD 298</td>
<td>Seminar and Project in Portfolio Development</td>
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**Program Notes:**
1 Developmental coursework may require additional semesters to complete program.  
*Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.  
**Arts & Humanities:** PHI 101-102; ART101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.  
***Recommend ITE 115 as free elective.
ADMINISTRATION OF JUSTICE

Program Length: 2 years (5 semesters)
Academic Awards: Associate of Applied Science (AAS)
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 66
Program Purpose: Not designed as a direct transfer program
Program Code: 400-01

PROGRAM COURSE REQUIREMENTS

First Semester (13 Credits)

<table>
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<th>Course Code</th>
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<tr>
<td>ENG 101</td>
<td>Practical Writing I OR College Composition I*</td>
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<tr>
<td>ADJ 100</td>
<td>Survey of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 133</td>
<td>Criminal Justice Ethics</td>
<td>3</td>
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<tr>
<td>ADJ 228</td>
<td>Narcotics and Dangerous Drugs</td>
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<td>SDV 101</td>
<td>Orientation to Administration of Justice</td>
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Second Semester (14 Credits)

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<tr>
<td>ENG 102</td>
<td>Practical Writing II OR College Composition II*</td>
<td>3</td>
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<tr>
<td>ADJ 131</td>
<td>Legal Evidence</td>
<td>3</td>
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<tr>
<td>ITE 100</td>
<td>Computer Applications in Administration of Justice OR Introduction to Computer Applications and Concepts</td>
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<tr>
<td>ADJ 105</td>
<td>The Juvenile Justice System</td>
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<td>HLT 105</td>
<td>CPR or PED Elective*</td>
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Third Semester (13 Credits)

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<td>PLS/HIS 100</td>
<td>Political Science or History Elective</td>
<td>3</td>
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<tr>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 138</td>
<td>Defensive Tactics for Police*</td>
<td>2</td>
</tr>
<tr>
<td>PED/ADJ 105</td>
<td>Topics in Law Fit (ADJ 195) OR Lifetime Wellness and Fitness* (PED 116)</td>
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<tr>
<td>SOC 200</td>
<td>Principles to Sociology</td>
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Fourth Semester (13 Credits)

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADJ 211</td>
<td>Criminal Law, Evidence and Procedures I</td>
<td>3</td>
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<tr>
<td>ADJ 171</td>
<td>Forensic Science I &amp; Lab</td>
<td>4</td>
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<tr>
<td>ELECTIVE</td>
<td>Humanities Elective</td>
<td>3</td>
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<tr>
<td>PSY 116</td>
<td>General Psychology OR Life Span Human Development</td>
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Fifth Semester (13 Credits)

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<tbody>
<tr>
<td>ADJ 172</td>
<td>Forensic Science II &amp; Lab</td>
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<td>ADJ 201</td>
<td>Criminology I</td>
<td>3</td>
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<td>ADJ 293</td>
<td>Coordinated Internship or Capstone Project in ADJ *</td>
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<tr>
<td>MTH 116</td>
<td>Math for Liberal Arts</td>
<td>3</td>
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</tbody>
</table>

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1 Developmental coursework may require additional semesters to complete program.

* All transfer students should take English 111/112. ENG 101-102 WILL NOT transfer to a senior college or university.

* All transfer students should consult the transfer guide for the senior college or university they wish to attend prior to completing the Political Science/History and Mathematics requirement.

* Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.

* Students wishing to take the ADJ-290 Coordinated Internship in lieu of the ADJ-298 Seminar and Project must have at least a 3.0 Cumulative GPA as well as approval from the Program Director.

* Students completing the Administration of Justice degree online may opt for the PED Elective. Those in residence must take HLT-105.

* Students completing the Administration of Justice degree online may opt for PED-116 Lifetime Wellness and Fitness. Those in residence must take ADJ-195 Topics in Law Fit.

* Students completing the Administration of Justice degree online must complete ADM-293 Studies in Police Use of Force in lieu of ADM-138 Defensive Tactics.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
# ADMINISTRATION OF JUSTICE

**Specialization: Emergency Management & Preparedness**

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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<tbody>
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<td>Academic Awards:</td>
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<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
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<td>Total Credit Hours Required:</td>
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<tr>
<td>Program Purpose:</td>
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</table>

## PROGRAM COURSE REQUIREMENTS

### First Semester (17 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition1*</td>
<td>3</td>
</tr>
<tr>
<td>ADJ 100</td>
<td>Survey of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>PBS 140</td>
<td>Principles of Emergency Management</td>
<td>3</td>
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<tr>
<td>SDV 101</td>
<td>Orientation to Administration of Justice</td>
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<tr>
<td>CST 100</td>
<td>Principles of Public Speaking</td>
<td>3</td>
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<tr>
<td>HLT 105</td>
<td>CPR (1 credit)</td>
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<tr>
<td>ADJ 228</td>
<td>Narcotics and Dangerous Drugs</td>
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### Second Semester (18 Credits)

<table>
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<tr>
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<tbody>
<tr>
<td>ENG 112</td>
<td>College Composition II*</td>
<td>3</td>
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<tr>
<td>ADJ 131</td>
<td>Legal Evidence</td>
<td>3</td>
</tr>
<tr>
<td>PBS 145</td>
<td>Resource Management and Mitigation for Emergency Managers</td>
<td>3</td>
</tr>
<tr>
<td>ITE</td>
<td>Computer Applications in Administration of Justice OR Introduction to Computer Applications and Concepts</td>
<td>(3 credits)</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Political Science or History Elective</td>
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<tr>
<td>HLT 110</td>
<td>Personal and Community Health</td>
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### Third Semester (16 Credits)

<table>
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<tr>
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<tbody>
<tr>
<td>ADJ 133</td>
<td>Criminal Justice Ethics</td>
<td>3</td>
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<td>PBS 210</td>
<td>Laws Regarding the Public Sector and Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>PBS 220</td>
<td>Disaster Response and Recovery</td>
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<td>ADJ 171</td>
<td>Forensic Science I &amp; Lab</td>
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<td>SOC 200</td>
<td>Principles to Sociology</td>
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### Fourth Semester (15 Credits)

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<tr>
<td>ADJ 201</td>
<td>Criminology I</td>
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<tr>
<td>PBS 298</td>
<td>Seminar &amp; Project in Emergency Management</td>
<td>3</td>
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<tr>
<td>ELECTIVE</td>
<td>Humanities Elective</td>
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<tr>
<td>MTH</td>
<td>Math for Liberal Arts or Probability &amp; Statistics</td>
<td>(3 credits)</td>
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<tr>
<td>PSY</td>
<td>General Psychology PSY 200 OR Life Span Human Development PSY 231</td>
<td>(3 credits)</td>
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</table>

1 Developmental coursework may require additional semesters to complete program.

* All transfer students should take English 111/112. ENG 101/102 WILL NOT transfer to a senior college or university.

• All transfer students should consult the transfer guide for the senior college or university they wish to attend prior to completing the Political Science/History, Mathematics as well as the ITE requirement. Students wishing to enter the field immediately after graduation are highly encouraged to take ADJ 168 as this content is a requirement to perform law enforcement or correctional work.

• Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
Welding ........................................................................................................ Page 51
# WELDING

<table>
<thead>
<tr>
<th>Program Length:</th>
<th>2 years (4 semesters)</th>
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<tbody>
<tr>
<td>Academic Awards:</td>
<td>Diploma</td>
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<tr>
<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
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<tr>
<td>Total Credit Hours Required:</td>
<td>61</td>
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<td>Program Purpose:</td>
<td>NON-TRANSFER</td>
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<tr>
<td>Program Code:</td>
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</table>

## PROGRAM COURSE REQUIREMENTS

### First Semester (17 Credits)
- **WEL 160** Gas Metal Arc Welding (3 credits)
- **WEL 130** Inert Gas Welding (3 credits)
- **WEL 150** Welding Drawing and Interpretation (3 credits)
- **WEL 117** Oxyfuel Welding & Cutting (3 credits)
- **WEL 123** Shielded Metal Arc Welding (Basic) (3 credits)
- **SAF 127** Industrial Safety (2 credits)

### Second Semester (13 Credits)
- **WEL 141** Welder Qualification Test (3 credits)
- **WEL 129** Piping and Fabrication (3 credits)
- **WEL 126** Pipe Welding I (3 credits)
- **SDV 106** Preparation for Employment (1 credit)
- **WEL 142** Welder Qualification Test II (3 credits)

### Third Semester (15 Credits)
- **MAC 161** Machine Shop Practices I (3 credits)
- **PSY Elective** (3 credits)
- **MAC 162** Machine Shop Practices II (3 credits)
- **MTH 103** Applied Technical Mathematics I (3 credits)
- **ITE 115** Introduction to Computer Applications & Concepts (3 credits)

### Fourth Semester (16 Credits)
- **MAC 163** Machine Shop Practices III (3 credits)
- **MAC 121** Numerical Control I (3 credits)
- **MAC 164** Machine Shop Practices IV (3 credits)
- **MTH 104** Applied Technical Mathematics II (3 credits)
- **ENG 101 or ENG 111** (3 credits)
- **ELECTIVE** Elective (1 credit)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
CERTIFICATE PROGRAMS

Arts & Crafts Production ................................................................. Page 53
Early Childhood Education ............................................................ Page 54
General Education ........................................................................ Page 55
Health Sciences .............................................................................. Page 56
Heating, Ventilation, and Air Conditioning ...................................... Page 57
Human Services Technology ............................................................ Page 58
Law Enforcement ........................................................................... Page 59
Legal Studies .................................................................................. Page 60
Practical Nursing ........................................................................... Page 61
Substance Abuse Rehabilitation Counselor ...................................... Page 62

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ARTS & CRAFTS PRODUCTION—Currently in Teach Out*

Program Length: 1 year (2 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 34
Program Purpose: NON-TRANSFER
Program Code: 597-01

The Arts & Crafts Production certificate program is designed to prepare students for careers as practicing craft persons and professional artists. The self-employed craft persons will benefit in the production of crafts by increasing their artistic abilities and developing their business, organization, planning, and communication skills.

PROGRAM COURSE REQUIREMENTS
First Semester (16 Credits)
___ ENG 101 Practical Writing I (3 credits)
___ CRF Hand Built Pottery 101 OR Introduction to Crafts 110 (3 credits)
___ ART 121 Drawing I (3 credits)
___ ART 131 Fundamentals of Design I (3 credits)
___ ART/CRF Introduction to Painting ART 125 OR Survey of Hand Crafts CRF 100 OR Computer Graphics I ART 283 (3 credits)
___ SDV 100 College Success Skills (1 credit)

Second Semester (18 Credits)
___ PSY/SOC Principles of Psychology OR Principles of Sociology (3 credits)
___ BUS 165 Small Business Management (3 credits)
___ ART 287 Portfolio and Resume Preparation (3 credits)
___ CRF 107 Hand Crafted Leather Work (3 credits)
___ ART/CRF Drawing II ART 122 OR Wheel Thrown Pottery CFF 102 (3 credits)
___ Fundamentals of Design II ART 132 OR Sculpture I ART 231 OR Airbrush I ART 171
___ ART 290 Coordinated Internship (3 credits)

*Contact Dean Cathy Smith-Cox—This program is being discontinued. No new students will be admitted to this program.
EARLY CHILDHOOD EDUCATION

Program Length: 1 year (2 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 30
Program Purpose: NON-TRANSFER
Program Code: 634-01

The certificate program is designed to prepare individuals for employment in a variety of situations where care and maintenance of young children is the primary objective. Practitioners already employed in the child care function may find this program appropriate for upgrading and broadening their paraprofessional abilities and qualifications.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

- CHD 145 Teaching Art, Music and Movement to Children (3 credits)
- CHD 118 Language Arts for Young Children (3 credits)
- CHD 120 Introduction to Early Childhood Education (3 credits)
- ENG 101 Practical Writing I (3 credits)
- SDV 100 College Success Skills (1 credit)

Second Semester (18 Credits)

- CHD 146 Math, Science and Social Studies for Children (3 credits)
- CHD 215 Models for Early Childhood Education Programs (3 credits)
- CHD 165 Observ. & Participation in Early Childhood/Primary Settings (3 credits)
- ENG 102 Practical Writing II (3 credits)
- HLT 135 Child Health and Nutrition (3 credits)
- HLT 100 First Aid & Cardiopulmonary Resuscitation (2 credits)

Program Guide:

1 Developmental coursework may require additional semesters to complete program.
GENERAL EDUCATION

Program Length: 1 year (2 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 33
Program Purpose: NON-TRANSFER
Program Code: 695-01

The Certificate in General Education prepares first time job seekers with the basic competencies which can help them be more competitive in the job market and more valuable in the workplace. For those individuals who wish to continue their education, the general education certificate provides foundational courses that allow students to progress toward the associate degree or to transfer to a senior institution.

PROGRAM COURSE REQUIREMENTS
First Semester (17 Credits)
  ___ SDV 100 College Success Skills (1 credit)
  ___ ELECTIVE Humanities/Fine Arts Elective* (3 credits)
  ___ MTH Math for Liberal Arts I Pre-Calculus I (3 credits)
  ___ HIS 121 U.S. History I (3 credits)
  ___ BIO 101 General Biology I** (4 credits)
  ___ ENG 111 College Composition I (3 credits)

Second Semester (16 Credits)
  ___ ENG 112 College Composition II (3 credits)
  ___ CST 100 Principles of Public Speaking (3 credits)
  ___ HIS 122 U.S. History II (3 credits)
  ___ PSY 200 Principles of Psychology (3 credits)
  ___ BIO 102 General Biology II** (4 credits)

Program Guide:
1 Developmental coursework may require additional semesters to complete program.
* Arts & Humanities: PHI 101-102; ART 101-102; MUS 121-122; ENG 241-242; ENG 243-244; REL 230, SPA 101-102, 201-202; FRE 101-102, 201-202.
**Lab Sciences may also Include: CHM 111-112, GOL 105-106, PHY 201-202 or 241-242

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
HEALTH SCIENCES

Program Length: 1 year (2 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 30
Program Purpose: NON-TRANSFER
Program Code: 190-06

This program is designed for those individuals interested in pursuing a career in the health professions. The program will enable students interested in health care professions to acquire an academic foundation to continue their education in one of the health programs. The program can also be used as a stepping-stone to the Associate of Arts & Science degree. Students should consult an academic advisor for any course substitutions to this curriculum.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)

___ ENG 111 College Composition I* (3 credits)
___ BIO 141 Human Anatomy & Physiology I** (4 credits)
___ HLT 143 Medical Terminology I (3 credits)
___ SDV 100 College Success Skills (1 credit)
___ PSY 231 Human Life Span Development I (3 credits)

Second Semester (16 Credits)

___ ENG 112 College Composition II* (3 credits)
___ BIO 142 Human Anatomy & Physiology II** (4 credits)
___ AST 232 Microcomputer Office App (3 credits)
___ PSY 232 Human Life Span Development II (3 credits)
___ ELECTIVE Elective*** (3 credits)

Program Guide:
1 Developmental coursework may require additional semesters to complete program.
2 Students must complete BIO 141 with a "C" or better to enroll in BIO 142.
*Students who do not place in college composition should take the appropriate developmental course.
**Students lacking high school chemistry and or biology should take CHM 05 and BIO 20. Students lacking only one of these courses may start the BIO 141 in second semester upon completion of Chemistry and/or Biology.
***Electives should be chosen with the advice of healthcare faculty or the Division Dean for Math, Science, & Health Technology. Students pursuing nursing may elect Math 126 in the second semester if placement testing allows. Students may also consider Math 240 with program advisement and if placement scores allow.
HEATING, VENTILATION, & AIR CONDITIONING

Program Length: 1 year (3 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 49
Program Purpose: NON-TRANSFER
Program Code: 903-01

Demands for trained, certified personnel to serve a variety of industries and businesses who sell, service, and maintain modern heating, ventilating, and air conditioning equipment are very much in evidence. This program is designed to train individuals in basics of Heating, Ventilation, and Air Conditioning (HVAC) technology. Persons completing this course of study should be able to enter the workforce as an entry level Maintenance Technician.

PROGRAM COURSE REQUIREMENTS
First Semester (18 Credits)

___ AIR 121  Air Conditioning & Refrigeration I (4 credits)
___ AIR 122  Air Conditioning & Refrigeration II (4 credits)
___ AIR 134  Circuits & Controls I (3 credits)
___ ELE 140  Basic Electricity & Machinery (4 credits)
___ MTH 103  Applied Technical Mathematics I (3 credits)

Second Semester (18 Credits)

___ AIR 136  Circuits & Controls III (4 credits)
___ ELE 135  National Electric Code-Residential (4 credits)
___ ENG    ENG Elective (3 credits)
___ AIR 165  Air Conditioning Systems I (4 credits)
___ BLD 111  Blueprint Reading and the Building Code (3 credits)

Third Semester (13 Credits)

___ BLD 122  Green Building Practices (1 credit)
___ SDV 106  Preparation for Employment (1 credits)
___ AIR 235  Heat Pumps (4 credits)
___ AIR 154  Heating Systems I (3 credits)
___ AIR 190  Coordinated Internship (3 credits)
___ AIR 276  Refrigerant Usage EPA Certification (1 credit)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
HUMAN SERVICES TECHNOLOGY

Program Length: 1 year (3 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 43
Program Purpose: NON-TRANSFER
Program Code: 469-01

There is a growing need for entry-level human services workers as aides, attendants, instructors, and paraprofessionals. This certificate program is designed to prepare individuals for potential employment in settings where social welfare, health, mental health, substance abuse, mental retardation, and residential services are provided. The program will expose students to the structure, purpose, philosophy, and services of these programs, and survey the basic skills and characteristics necessary for human service providers. Awareness of professional careers in these fields will be gained.

PROGRAM COURSE REQUIREMENTS

First Semester (16 Credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HMS 100</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 121</td>
<td>Basic Counseling Skills I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>SDV 100</td>
<td>College Success Skills</td>
<td>1</td>
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<tr>
<td>MEN 101</td>
<td>Mental Health Skills I</td>
<td>3</td>
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<td>PSY 200</td>
<td>Principles of Psychology</td>
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Second Semester (18 Credits)

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<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications &amp; Concepts</td>
<td>3</td>
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<tr>
<td>PSY 215</td>
<td>Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>MEN 225</td>
<td>Counseling Therapy</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II*</td>
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<td>HMS 122</td>
<td>Basic Counseling Skills II</td>
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<td>PSY 120</td>
<td>Human Relations</td>
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Third Semester (9 Credits)

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<td>MEN 102</td>
<td>Mental Health Skills II</td>
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</tr>
<tr>
<td>HMS 190</td>
<td>Coordinated Internship in Human Services**</td>
<td>3</td>
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<tr>
<td>ELECTIVE</td>
<td>Social Sciences Elective***</td>
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Program Guide:

1 Developmental coursework may require additional semesters to complete program.
* Students who do not wish to pursue a Baccalaureate degree may substitute ENG 101-102 for ENG 111-112.
** HMS 190 requires approval of the Human Services advisor.
*** Electives: ECO 201-202; HIS 101-102; PLS 211-212; PSY 231-232; SOC 200; GEO 200, GEO 210
LAW ENFORCEMENT

Program Length: 1 year (2 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 33
Program Purpose: NON-TRANSFER
Program Code: 463-01

The certificate curriculum in law enforcement has been developed in accordance with the need of local law enforcement agencies and personnel. The program is designed to meet the needs of the large number of local in-service law enforcement personnel and pre-service students who at present do not possess the necessary qualifications for entrance into the associate degree program in administration of justice or for other reasons do not wish to continue their education or in the interim obtain the necessary qualifications for the associate degree program. All credits obtained in the certificate program will be transferable.

PROGRAM COURSE REQUIREMENTS
First Semester (16 Credits)
___ ENG Practical Writing or College Composition I* (3 credits)
___ ADJ 133 Criminal Justice Ethics (3 credits)
___ ADJ 100 Survey of Criminal Justice (3 credits)
___ SDV 100 College Success Skills (1 credit)
___ CST 100 Principles of Public Speaking (3 credits)
___ ADJ 228 Narcotics and Dangerous Drugs (3 credits)

Second Semester (17 Credits)
___ ENG Practical Writing II or College Composition II* (3 credits)
___ ADJ 131 Legal Evidence (3 credits)
___ ITE Computer Applications in Administration of Justice OR Introduction to Computer Applications & Concepts (3 credits)
___ PLS/HIS Political Science or History Elective (3 credits)
___ ADJ 105 Juvenile Justice (3 credits)
___ PED Exercise and Nutrition I OR Lifetime Wellness and Fitness (2 credits)

Program Guide:
1 Developmental coursework may require additional semesters to complete program.

NOTE:
• All transfer students should take English 111/112. English 101/102 will not transfer to a senior college or university.
• All transfer students should consult the transfer guide for the senior college or university they wish to attend prior to completing the Political Science/History requirement.
• Students wishing to transfer to senior colleges or universities should consult the ADJ Program Director for articulation agreements and further requirements particularly in the general core classes.
• Students completing the Administration of Justice degree online must complete the online version of this course which includes an original research project on Police/Correctional Use of Force.
*Students completing the Administration of Justice degree online may opt for PED-116 Lifetime Wellness and Fitness. Those in residence must take PED-107 Exercise and Nutrition I.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
**LEGAL STUDIES**

<table>
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<th>Program Length:</th>
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<tr>
<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
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<td>Total Credit Hours Required:</td>
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<td>Program Purpose:</td>
<td>NON-TRANSFER</td>
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<tr>
<td>Program Code:</td>
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</table>

The Legal Studies Certificate program is designed to prepare individuals with the skills and knowledge of the law and legal issues needed to work in various careers. These careers include legal assistant, paralegal, and other law related professions.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (19 Credits)**

- **SDV 100** College Success Skills (1 credit)
- **ITE 115** Introduction to Computer Applications & Concepts (3 credits)
- **LGL 127** Legal Research & Writing (3 credits)
- **PSY 120** Human Relations (3 credits)
- **LGL 130** Law Office Administration & Accounting (3 credits)
- **LGL 110** Introduction to Law and the Legal Assistant (3 credits)
- **BUS 241** Business Law (3 credits)

**Second Semester (18 Credits)**

- **ENG 111** English Composition I (3 credits)
- **LGL 225** Estate Planning & Probate (3 credits)
- **LGL 230** Legal Transactions (3 credits)
- **LGL 117** Family Law I (3 credits)
- **LGL 217** Trial Practice & Law Evidence (3 credits)
- **LGL 190** Coordinated Internship (3 credits)

**Program Notes:**

Students who plan to complete the Legal Studies certificate and the AA&S in Business Administration for transfer should complete an Approved Elective rather than ITE 115 and BUS 241. Approved Elective List: ACC 220 Accounting for Small Business, LGL 126 Legal Writing, LGL 218 Criminal Law, ADJ 131 Legal Evidence, LGL 125 Legal Research, LGL 226 Real Estate Abstracting, BUS 242 Business Law II, LGL 150 Law and Mediation, ENV 227 Environment Law

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
PRACTICAL NURSING

Program Length: 2 year (4 semesters)
Academic Awards: Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 49
Program Purpose: NON-TRANSFER
Program Code: 157-01

The practical nurse program prepares students to qualify as contributing members of the health care team, rendering patient care as practical nurses in a variety of health service facilities. At the successful completion of the program, and application approval of the state board of nursing, students will be eligible to sit for the NCLEX exam, leading to licensure as a practical nurse.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
   ___ PNE 155  Body Structure and Function (3 credits)
   ___ HLT 130  Nutrition Diet Therapy (1 credit)
   ___ SDV 100  College Success Skills (1 credit)
   ___ PNE 146  Fundamentals of Practical Nursing (6 credits)
   ___ PNE 195  Topics in PNE Student Success (1 credit)

Second Semester (14 Credits)
   ___ PNE 151  Medical Surgical Nursing I (4 credits)
   ___ PNE 181  Clinical Experience (5 credits)
   ___ PNE 173  Pharmacology I (2 credits)
   ___ ENG 101  Practical Writing¹ (3 credits)

Third Semester (8 Credits)
   ___ PNE 130  Maternity Nursing (4 credits)
   ___ PNE 157  Maternal and Child Health Nursing (4 credits)

Fourth Semester (14 Credits)
   ___ PNE 295  Topics in NCLEX Success (1 credits)
   ___ PNE 152  Medical Surgical Nursing II (4 credits)
   ___ PNE 145  Trends in Practical Nursing (1 credit)
   ___ PNE 158  Mental Health/Psychiatric Nursing (2 credits)
   ___ PNE 182  Clinical Experience II (6 credits)

Program Guide:
¹Developmental coursework may require additional semesters to complete program.
*The board of nursing assesses NCLEX-PN pass rates on an annual basis from January thru December of each calendar year. The calculations are only a reflection of the 1st testing attempt of students who test for boards. All students who test within the given calendar year are combined in the overall percentage whether the graduate testing was from the assigned year of testing or another cohort (with the exception of 2006 & 2007 cohorts).

All students are strongly advised by the director of the program to test for the NCLEX-PN immediately following graduation for best passage results of boards on the first attempt of testing. As of July of 2011, all students, prior to graduation of the program, must pass the ATI NCLEX-PN predictor test with an 80% or above, make application to the board of nursing, pay testing fees, and register for a Virtual ATI NCLEX-PN review.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
## SUBSTANCE ABUSE REHABILITATION COUNSELOR

<table>
<thead>
<tr>
<th>Program Length:</th>
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</tbody>
</table>

This program is designed to fulfill the Virginia state educational requirements for the certification of substance abuse counselors. To meet substance abuse counselor certification requirements, the applicant is expected to meet specific educational requirements including didactic and experiential learning with a supervised internship required. The program is designed to be completed within one academic year and will serve as a specialization under the Human Services Program at Southwest Virginia Community College. Effective June 30, 2003, applicants for Virginia’s CSAC must possess a Bachelor’s degree.

### PROGRAM COURSE REQUIREMENTS

#### First Semester (19 Credits)

- ENG 111 College Composition I (3 credits)
- HMS 121 Basic Counseling Skills I (3 credits)
- HMS 141 Group Dynamics (3 credits)
- HMS 251 Substance Abuse (3 credits)
- HMS 266 Counseling Psychology (3 credits)
- PSY 232 Lifespan Human Development II (3 credits)
- SDV 100 College Success Skills (1 credit)

#### Second Semester (18 Credits)

- HMS 142 Group Dynamics II (3 credits)
- HMS 145 Effects of Psychoactive Drugs (3 credits)
- HMS 252 Substance Abuse II (3 credits)
- HMS 258 Case Management & Substance Abuse (3 credits)
- HMS 290 Coordinated Internship* (3 credits)
- PSY 120 Human Relations (3 credits)

### Program Guide:

*Students will be expected to complete AT LEAST three (3) semester hours of cooperative education to complete the state requirements for licensure. Students having equivalent experience have the option of submitting documentation of said experience for review for credit by experience.*
### CAREER STUDIES

#### CERTIFICATE PROGRAMS (CSC)

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For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ADVANCED STUDIES IN SCIENCE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 27
Program Purpose: NON-TRANSFER
Program Code: 221-190-01

Designed for those individuals interested in pursuing a career in the health professions. This program will enable students interested in health care professions to acquire advanced preparation for the health care field. Students should consult an academic advisor for any course substitutions to this curriculum.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

- **MTH 163** Pre-Calculus I (3 credits)
- **ELECTIVE** Social Science Elective (3 credits)
- **PHY** PHY Elective (3 Credits)
- **BIO 141** Human Anatomy & Physiology I (4 credit)

Second Semester (14 Credits)

- **BIO 142** Human Anatomy & Physiology II (4 credit)
- **CHM 260** Introductory Biochemistry (3 credits)
- **BIO 205** General Microbiology (4 credits)
- **HLT** HLT Elective (3 credit)

ADVENTURE TOURISM

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-212-79

Entrepreneurs are the foundation of most industries. The adventure tourism curriculum prepares students to be small business owners in the tourism industry. The difference between these and other small businesses is the focus on outdoor recreation activities, which could range from bed and breakfasts to an outfitter providing guided hiking, biking, kayaking, or climbing trips.

PROGRAM COURSE REQUIREMENTS
First Semester (16 Credits)

- **ITE 115** Introduction to Computer Applications & Concepts (3 credits)
- **RPK 265** Risk Management (3 credits)
- **RPK 100** Introduction to Recreation, Parks & Leisure Studies (3 Credits)
- **RPK 103** Preparation for Wilderness Adventure (1 credit)
- **RPK 141** Leadership & Supervision (3 credits)
- **RPK 140** Land Use Ethics (1 credit)
- **RPK 160** Wilderness First Aid (2 credits)

Second Semester (13 Credits)

- **RPK 102** Outdoor Recreation in the Appalachian Ecosystem (2 credits)
- **ACC 220** Accounting for Small Businesses (3 credits)
- **MKT 170** Customer Service (2 credits)
- **RPK 151** Orienteering (1 credit)
- **RPK** (RPK 190) Coordinated Internship OR (RPK 198) Capstone Course (2 credits)
- **BUS** Entrepreneurship OR BUS 165 Small Business Management (3 credits)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
APPALACHIAN STUDIES

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 12
Program Purpose: NON-TRANSFER
Program Code: 221-694-01
The Appalachian Studies Career Studies Certificate is an interdisciplinary program with course work in Appalachian hand crafts, theatre, music and Appalachian folklore. Each course revolves around the history and culture of the Appalachian Mountains and serves as a means to preserve the cultural heritage.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)

- CRF 100 Survey of Hand Crafts (3 credits)
- CST 130 Introduction to the Theatre (Barter) (3 credits)
- MUS 193 Studies in Traditional Music I (3 credits)
- ENG 288 Appalachian Folklore (3 credit)

AGRIBUSINESS

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 20
Program Purpose: NON-TRANSFER
Program Code: 221-335-30
Designed to provide the students pursuing an agriculture related career with foundational knowledge.

PROGRAM COURSE REQUIREMENTS
First Semester (11 Credits)

- AGR 141 Introduction to Animal Science & Technology (4 credits)
- AGR 142 Introduction to Plant Science & Technology (3 credits)
- AGR 143 Introduction to Agribusiness & Financial Management (3 credits)
- SDV 100 College Success Skills (1 credit)

Second Semester (9 Credits)

- AGR 144 Agriculture Human Resources Management (3 credits)
- AGR Agribusiness Elective* (3 credits)
- AGR Agribusiness Elective* (3 credits)

Program Notes:
*Agribusiness Electives are to be chosen from the following: AGR 205, AGR 231, AGR 232, AGR 233, AGR 241, AGR 242, and AGR 244.
BASIC EMT SERVICES

Program Length: 1 semester  
Academic Awards: Career Studies Certificate  
Special Program Admission Required: Competency in English and Math Essentials  
Total Credit Hours Required: 9  
Program Purpose: NON-TRANSFER  
Program Code: 221-146-01

The purpose of this curriculum is to produce competent, entry-level Emergency Medical Technicians who can provide basic life support and care to the sick and injured via the Emergency Medical Services (EMS) infrastructure. Upon successful completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for EMTs are available with ambulance services, fire and rescue departments, hospitals, local, state and federal government agencies, and humanitarian relief organizations.

PROGRAM COURSE REQUIREMENTS
First Semester (9 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 112</td>
<td>Emergency Medical Technician I</td>
<td>4 credits</td>
</tr>
<tr>
<td>EMS 113</td>
<td>Emergency Medical Technician II</td>
<td>3 credits</td>
</tr>
<tr>
<td>EMS 120</td>
<td>Emergency Medical</td>
<td>1 credit</td>
</tr>
<tr>
<td>HLT 105</td>
<td>Cardiopulmonary Resuscitation</td>
<td>1 credit</td>
</tr>
</tbody>
</table>

BASIC IT SKILLS

Program Length: 1 semester  
Academic Awards: Career Studies Certificate  
Special Program Admission Required: Competency in English and Math Essentials  
Total Credit Hours Required: 9  
Program Purpose: NON-TRANSFER  
Program Code: 221-299-05

Provides the student with entry-level computer skills common to the workplace.

PROGRAM COURSE REQUIREMENTS
First Semester (9 Credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE 115</td>
<td>Introduction to Computer Applications and Concepts</td>
<td>3 credits</td>
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<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3 credits</td>
</tr>
<tr>
<td>ITE 170</td>
<td>Multimedia Software</td>
<td>3 credits</td>
</tr>
</tbody>
</table>
BOOKKEEPING

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 26
Program Purpose: NON-TRANSFER
Program Code: 221-212-03

The Career Studies Certificate in Bookkeeping is designed to provide individuals with an educational level that will enable them to obtain employment requiring basic bookkeeping skills.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
___ ACC 211 Principles of Accounting I (4 credits)
___ ACC 261 Principles of Taxation I (3 credits)
___ ITE 115 Introduction to Computer Applications and Concepts (3 credits)
___ ITE 140 Spreadsheet Software (3 credits)

Second Semester (13 Credits)
___ ACC 212 Principles of Accounting II (4 credits)
___ ACC 215 Computerized Accounting (3 credits)
___ AST 205 Business Communications (3 credits)
___ ACC 124 Payroll Accounting (3 credits)

Carpentry

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-989-34

This Career Studies Certificate in Carpentry is in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, re-training, and investigating career possibilities.

PROGRAM COURSE REQUIREMENTS
First Semester (15 Credits)
___ BLD 110 Introduction to Construction (3 credits)
___ BLD 131 Carpentry & Framing I (5 credits)
___ SDV 106 Preparation for Employment (1 credit)
___ SAF 127 Industrial Safety (2 credits)
___ BLD 147 Principles of Block & Bricklaying I (3 credits)
___ ITE 102 Computers & Information Systems (1 credit)

Second Semester (14 Credits)
___ BLD 132 Carpentry & Framing II (5 credits)
___ BLD 135 Building Construction Carpentry (2 credits)
___ BLD 111 Blueprint Reading and the Building Code (3 credits)
___ BLD 122 Green Building Practices (1 credit)
___ BLD 298 Capstone in Carpentry (3 credits)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
COMPUTER REPAIR TECHNICIAN

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 9
Program Purpose: NON-TRANSFER
Program Code: 221-731-24

The Computer Repair Technician has a working knowledge of computer concepts and internet skills as well as hardware and software configurations. The technician will be able to install various peripheral devices as well as basic system hardware components. The technician can work in a variety of industries such as information technology, consulting firms, private sector and public sectors such as schools, universities and be self-employed.

PROGRAM COURSE REQUIREMENTS
First Semester (9 Credits)
____ ITE 115 Introduction to Computer Applications & Concepts (3 credits)
____ ITN 106 Microcomputer Operating Systems (3 credits)
____ INT 107 Personal Computer Hardware & Software (3 credits)

COMPUTED TOMOGRAPHY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 14
Program Purpose: NON-TRANSFER
Program Code: 221-172-10

Designed to prepare selected students to qualify as contributing members of the allied health interdisciplinary team. Upon completion of the curriculum (and successful completion and documentation of all required clinical competencies as set for by the American Registry of Radiologic Technologists), the student is eligible to apply to take the National Registry examination, leading to advanced certification as a Registered Radiographer in CT by the ARRT.

PROGRAM COURSE REQUIREMENTS
First Semester (6 Credits)
____ RAD 247 Cross Sectional Anatomy for CT/MR (3 credits)
____ RAD 242 CT Procedures and Instrumentation (2 credits)
____ RAD 196* On Site Training Clinical Internship in CT* (1 credit)

Second Semester (8 Credits)
____ RAD 295 Topics in CT Registry Preparation (3 credits)
____ RAD 196* On Site Training in Clinical Internship in CT* (2 credits)
____ RAD 195 Topics in Pharmacology for Technologists (1 credit)
____ HLT 145 Ethics for Healthcare Personnel (2 credits)

Program Notes:
*Students who can provide documentation of continuous employment in CT for a minimum of 1 year prior to the application deadline have the option of NOT completing the RAD 196 clinical class requirements.

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
CRIME SCENE TECHNOLOGY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 27
Program Purpose: NON-TRANSFER
Program Code: 221-400-49

Designed to provide students with the knowledge and skills to become crime scene technicians. The focus of the program will include courses in communication, forensic science, and evidence collection and processing. This curriculum is applicable to both the preparatory student and the experienced officer.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)
___ ENG 101 Practical Writing I (3 credits)
___ ADJ 134 Collection and Preservation of Physical Evidence (3 credits)
___ ADJ 171 Forensic Science I (4 credits)
___ SDV 100 College Success Skills (1 credit)
___ ADJ 173 Forensic Photography I (3 credits)

Second Semester (13 Credits)
___ ADJ 168 Computer Applications in Administration of Justice (3 credits)
___ ADJ 172 Forensic Science II (4 credits)
___ ADJ 174 Forensic Photography II (3 credits)
___ ADJ 270 Introduction to Trace Evidence (3 credits)

CUSTOMER CARE REPRESENTATIVE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-212-78

Provides the student with fundamental computer and customer services skills common to the workplace. Student can select electives to fit their specific employment criteria.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)
___ MKT 100 Principles of Marketing (3 credits)
___ ITE 115 Introduction to Computer Applications & Concepts (3 credits)
___ MKT 170 Customer Service (2 credits)
___ MKT 260 Customer Service Management (3 credits)
___ ELECTIVE Elective (3 credits)

Second Semester (15 Credits)
___ ELECTIVE Elective* (12 credits)
___ AST 205 Business Communications (3 credits)

Program Notes:
* Division Approval

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
CYBERSECURITY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-732-15

This program provides students with knowledge and training so they can implement defense, recognize unauthorized access and take action to minimize threats to their network and computing environment. Our program is designed to provide students with technical and problem solving expertise needed to actively protect assets connected to a network. Admission Requirements: Students must meet the general admission requirements established by the College.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)
___ ITE 105 Careers and Cyber Ethics (2 credits)
___ BUS 106 Security Awareness for Managers (3 credits)
___ ITN 106 Microcomputer Operating Systems (3 credits)
___ ITN 107 Personal Computer Hardware and Troubleshooting (3 credits)
___ ITN 101 Introduction to Network Concepts (3 credits)

Second Semester (15 Credits)
___ ITN 111 Server Administration OR ITN 170 Linux System Administration (3 credits)
___ ITN 260 Network Security Basics (3 credits)
___ ITN 261 Network Attacks, Computer Crime and Hacking (3 credits)
___ ITN 262 Network Communication, Security and Authentication (3 credits)
___ ITN 266 Network Security Layers (3 credits)

EARLY CHILDHOOD EDUCATION

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 16
Program Purpose: NON-TRANSFER
Program Code: 221-636-04

Designed to meet the qualification requirements of the Office of Head Start for teaching assistants. This statewide certificate is intended to align efforts in early childhood education programs aimed at increasing quality in programs serving young children. The certificate is open to all students including Head Start staff.

PROGRAM COURSE REQUIREMENTS
First Semester (16 Credits)
___ CHD 120 Introduction to Early Childhood Education (3 credits)
___ CHD 145 Teaching Art, Music and Movement to Children (3 credits)
___ CHD 165 Observation and Participation in Early Childhood Settings (3 credits)
___ CHD 205 Guiding the Behaviors of Children (3 credits)
___ SDV 100 College Success Skills (1 credit)
___ HLT 135 Child Health and Nutrition (3 credits)
EARLY CHILDHOOD INFANT AND TODDLER

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 16
Program Purpose: NON-TRANSFER
Program Code: 221-636-05

Designed to meet the qualification requirements of the Office of Head Start assistants in Early Head Start. This statewide certificate is intended to align efforts in early childhood education programs aimed at increasing quality in programs serving young children. The certificate is open to all students including Head Start Staff.

PROGRAM COURSE REQUIREMENTS
First Semester (16 Credits)

___ SDV 100 College Success Skills (1 credit)
___ CHD 120 Introduction to Early Childhood Education (3 credits)
___ CHD 164 Working with Infants and Toddlers in an Inclusive Setting (3 credits)
___ CHD 165 Observation and Participation in Early Childhood Setting (3 credits)
___ CHD 166 Infant and Toddler Program (3 credits)
___ HLT 135 Child Health and Nutrition (3 credits)

ELECTRICAL INSTALLATION

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-941-02

The Career Studies Certificate in Electricity is in response to the non-conventional short-term program of study needs of many adults in our service region for an award which provides for upgrading, re-training, and investigating career possibilities. This program in Electricity is designed to prepare the student for full-time employment as an entry trade electrician, immediately upon completion of the program. A student who completes the program is capable of performing the job skills normally expected of entry level electricians, working with a licensed electrician.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)

___ BLD 110 Introduction to Construction (3 credits)
___ SAF 127 Industrial Safety (2 credits)
___ ELE 140 Basic Electricity & Machinery (4 credits)
___ SDV 106 Preparation for Employment (1 credit)
___ ELE 136 National Electric Code – Commercial (3 credits)
___ ITE 102 Computer and Information Systems (1 credit)

Second Semester (15 Credits)

___ ELE ELE 156 Electrical Control Systems (3 credits) OR ELE 245 Industrial Wiring (3 credits)
___ BLD 111 Blueprint Reading and the Building Code (3 credits)
___ ELE 135 National Electric Code · Residential (4 credits)
___ BLD 122 Green Building Practices (1 credit)
___ ELE 177 Photovoltaic Energy Systems (4 credits)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
ELECTRONIC MEDICAL RECORDS SPECIALIST

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 27
Program Purpose: NON-TRANSFER
Program Code: 221-285-74

An essential component involved in the successful transition from paper to digital medical records that healthcare providers are now experiencing is a staff member with knowledge of computer technology specifically related to the management and processing of health information with an emphasis on the electronic health record. The Electronic Medical Records Career Studies Certificate will develop skills needed for healthcare-specific topics such as medical record content and format; standard techniques for filing, maintenance, and acquisition of health information; processes of collecting, computing, analyzing, interpreting, and presenting data related to health care services; and the role that accrediting and licensing bodies play in the delivery of health care.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

- HIM 100 Introduction to Healthcare Delivery Systems (1 credit)
- HLT 143 Medical Terminology I (3 credits)
- ITE 115 Introduction to Computer Applications and Concepts (3 credits)
- HIM 150 Health Records Management (3 credits)
- ITE 140 Spreadsheet Software (3 credits)

Second Semester (14 Credits)

- BUS 209 Continuous Quality Improvement (3 credits)
- HLT 144 Medical Terminology II (3 credits)
- BUS 106 Security Awareness for Managers (3 credits)
- HIM 233 Electronic Health Records Management (3 credits)
- HLT 145 Ethics/Health Care Personnel (2 credits)
**EMT - INTERMEDIATE**

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<tr>
<td>Special Program Admission Required:</td>
<td>Competency in English and Math Essentials</td>
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<td>Total Credit Hours Required:</td>
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<td>Program Purpose:</td>
<td>NON-TRANSFER</td>
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<tr>
<td>Program Code:</td>
<td>221-146-03</td>
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</table>

The purpose of this curriculum is to produce competent entry-level Emergency Medical Technician-Intermediates (EMT I/99) who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for EMT-Intermediates are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (8 Credits)**
- EMS 111 Emergency Medical Technician-Basic (7 credits)
- EMS 120 EMT-Basic Clinical (1 credit)

**Second Semester (9 Credits)**
- EMS 151 Introduction to Advanced Life Support (4 credits)
- EMS 152 AEMT Completion (2 credits)
- EMS 153 Basic ECG Recognition (2 credits)
- EMS 170 ALS Internship I (1 credit)

**Third Semester (10 Credits)**
- EMS 154 ALS Cardiac Care (2 credits)
- EMS 157 ALS Trauma Care (3 credits)
- EMS 159 EMS Special Populations (3 credits)
- EMS 172 ALS Clinical Internship II (1 credit)
- EMS 173 ALS Field Internship I (1 credit)
INTERMEDIATE TO PARAMEDIC

**Program Length:** 1 year (3 semesters)

**Academic Awards:** Career Studies Certificate

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 26

**Program Purpose:** NON-TRANSFER

**Program Code:** 221-146-05

The purpose of this curriculum is to produce competent entry-level Paramedics who can service the community with advanced life support care via the Emergency Medical Services (EMS) infrastructure. Upon completion of the program, students will be eligible for National Registry testing and certification in the Commonwealth of Virginia. Employment opportunities for Paramedics are available with ambulance; fire and rescue services; hospitals; local, state and federal government agencies; and humanitarian relief organizations.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (6 Credits)**

- EMS 213  ALS Skills Development (2 credits)
- BIO 145  Human Anatomy & Physiology* (4 credits)

**Second Semester (10 Credits)**

- EMS 205  Advanced Pathophysiology (4 credits)
- EMS 209  Advanced Pharmacology (4 credits)
- EMS 242  ALS Clinical Internship III (1 credit)
- EMS 243  ALS Internship III (1 credits)

**Third Semester (10 Credits)**

- EMS 201  EMS Professional Development (3 credits)
- EMS 207  Advanced Patient Assessment (3 credits)
- EMS 211  Operations (2 credits)
- EMS 244  ALS Clinical Internship IV (1 credit)
- EMS 245  ALS Field Internship IV (1 credit)

**Program Notes:**

*Students should take BIO 141, 142 or BIO 145. It is recommended that students who are planning to transfer to Registered Nursing or Radiography complete BIO 141-142.*
ENTREPRENEURSHIP

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-212-12

The Career Studies Certificate in Entrepreneurship is designed to provide students with the knowledge and skills to start and run a small business. The focus of the program will include communications, accounting, designing a business plan, technology, legal issues and marketing. Small businesses are critical to the foundation of America and provide unlimited opportunities for entrepreneurs.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
   ___ BUS 116  Entrepreneurship (3 credits)
   ___ AST 117  Keyboarding for Computer Usage (1 credits)
   ___ MKT 160  Marketing for Small Business (3 credits)
   ___ ELECTIVE Elective (3 credits)
   ___ ITE 115  Introduction to Computer Applications and Concepts (3 credits)

Second Semester (12 Credits)
   ___ ACC 220  Accounting for Small Business (3 credits)
   ___ ACC 134  Small Business Taxes (2 credits)
   ___ BUS 160  Legal Aspects of Small Business Operations (1 credit)
   ___ ELECTIVE Elective (3 credits)
   ___ ELECTIVE Elective (3 credits)

FIRE SCIENCE TECHNOLOGY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 24
Program Purpose: NON-TRANSFER
Program Code: 221-427-02

Fire Science Technology – With much of the fire service work being done by volunteer fire fighters, there is a need for in-service training as well as initial training for area volunteers. The Fire Science Technology curriculum is designed to meet both needs.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)
   ___ FST 100  Principles of Emergency Services (3 credits)
   ___ FST 110  Fire Behavior and Combustion (3 credits)
   ___ FST 112  Hazardous Material Chemistry I (3 credits)
   ___ FST 115  Fire Prevention (3 credits)

Second Semester (12 Credits)
   ___ FST 120  Occupational Health and Safety (3 credits)
   ___ FST 205  Fire Protection Hydraulics and Water Supply (3 credits)
   ___ FST 220  Building Construction for Fire Protection (3 credit)
   ___ FST 235  Strategy and Tactics (3 credits)
GEOGRAPHIC INFORMATION SYSTEMS

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-719-71

This Certificate program is designed to prepare students for entry-level positions in technologies using Geographic Information Systems or to expand the knowledge and skills of individuals presently employed in a wide variety of careers in business, computer technologies, environmental, urban and regional planning, government, forestry, land management and many more. This program also provides an excellent foundation for continued study of GIS at the university and four year college level.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

____ GEO 200 Introduction to Physical Geography (3 credits)
____ ITE 150 Desktop Database Software (3 credits)
____ ITD 132 Structured Query Language (3 credits)
____ GIS 200 Geographical Systems I (4 credits)

Second Semester (12 Credits)

____ GIS 201 Geographical Systems II (4 credits)
____ GIS 205 GIS 3-D Analysis (4 credits)
____ GIS 210 Understanding Geographic Data (4 credits)

GUIDE ESSENTIALS

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 10
Program Purpose: NON-TRANSFER
Program Code: 221-459-02

The Career Studies Certificate in Guide Essentials prepares students to lead outdoor excursions for a variety of outdoor recreation activities and events. The courses provide the student with the skills he/she needs to be successful working for an outfitter, adventure camp, national, state or local Parks, or other recreational venue. This program is an add-on stackable credential that complements and builds on an individual’s previous education and work experience, enhancing their skill set.

PROGRAM COURSE REQUIREMENTS
First Semester (10 Credits)

____ RPK 100 Introduction to Recreation, Parks & Leisure Studies (3 credits)
____ RPK 103 Preparation for Wilderness Adventure (1 credit)
____ RPK 141 Leadership and Supervision (3 credits)
____ RPK 160 Wilderness First Aid (2 credits)
____ RPK 140 Land Use Ethics (1 credit)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
HEALTH CARE TECHNICIAN

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 26
Program Purpose: NON-TRANSFER
Program Code: 221-190-06

Designed to prepare students to work as health care technicians in facilities such as interim care. Upon successful completion students can sit for the state licensure certification.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
___ HCT 101 Health Care Technician I (3 credits)
___ HCT 102 Health Care Technician II (3 credits)
___ HCT 115 Medication Management (3 credits)
___ HCT 190 Coordinated Internship in Medication Management (1 credit)
___ HMS 231 Gerontology I (3 credits)

Second Semester (13 Credits)
___ HCT 117 Common Causes of Problem Behavior (3 credits)
___ HCT 119 Advanced Health Care Technician (4 credits)
___ HCT 100 Introduction to Health Career Occupations (3 credits)
___ HMS 232 Gerontology II (3 credits)

HEATING, VENTILATION, & AIR CONDITIONING

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-903-10

Demands for trained, certified personnel to serve a variety of industries and businesses who sell, service, and maintain modern heating, ventilating, and air conditioning equipment are very much in evidence. This program is designed to train individuals in basics of Heating, Ventilation, and Air Conditioning (HVAC) technology. Persons completing this course of study should be able to enter the workforce as an entry level Maintenance Technician.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)
___ AIR 121 Air Conditioning & Refrigeration I (4 credits)
___ AIR 122 Air Conditioning & Refrigeration II (4 credits)
___ AIR 134 Circuits & Controls I (3 credits)
___ MTH 103 Applied Technical Mathematics I (3 credits)

Second Semester (15 Credits)
___ BLD 110 Introduction to Construction (3 credits)
___ ELE 140 Basic Electricity & Machinery (4 credits)
___ ELECTIVE Approved Technical Elective* (4 credits)
___ ELECTIVE Approved Technical Elective* (4 credits)

Program Notes:
* Approved Technical Electives: ELE135, ELE177, ENE105, AIR136, AIR165, AIR235, AIR154 AIR276 or Division Approval

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
HORTICULTURE MANAGEMENT

Program Length: 1 year (3 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-335-01

Designed to prepare students with foundational skills in horticulture with possibility of becoming an entrepreneur in the field.

PROGRAM COURSE REQUIREMENTS
First Semester (9 Credits)
- HRT 110 Principles of Horticulture (3 credits)
- HRT 115 Plant Propagation (3 credits)
- BUS 165 Small Business Management (3 credits)

Second Semester (12 Credits)
- HRT 227 Professional Landscape Mgmt. (3 credits)
- HRT 205 Soils (3 credits)
- BUS 116 Entrepreneurship (3 credits)
- HRT 121 Greenhouse Crop Production (3 credits)

Third Semester (8 Credits)
- HRT 207 Plant Pest Management (3 credits)
- HRT 226 Greenhouse Management (3 credits)
- HRT 190 Coordinated Internship (2 credits)

INDUSTRIAL MAINTENANCE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-990-00

Provides students interested in career in industrial maintenance with the fundamental knowledge of basic skills to be successful. The student can take courses specific to the area of interest.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
- ELE 140 Basic Electricity & Machinery (4 credits)
- MAC 161 Machine Shop Practices I (3 credits)
- ELE 136 National Electrical Code - Commercial (3 credits)
- ELECTIVE Approved Technical Elective* (3 credits)

Second Semester (12 Credits)
- ITE 115 Introduction to Computer Applications and Concepts (3 credits)
- ELECTIVE Approved Technical Elective* (3 credits)
- ELECTIVE Approved Technical Elective* (3 credits)
- ELECTIVE Approved Technical Elective* (3 credits)

Program Notes:
*Approved Technical Electives: ELE135, ELE177, ELE 211, ELE 233, ELE 245, ELE 234, ELE 156, ETR 113, ETR 143, ETR 144, MAC 162, MAC 163, MAC 164, WEL 117, WEL 123, MEC 161, MAC 121, MAC 122, AIR 134, MIN 131, MIN 132, ETR 114, ETR 145, or Division Approval

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
INFORMATION TECHNOLOGY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 24
Program Purpose: NON-TRANSFER
Program Code: 221-299-08

The Career Studies Certificate in Information Technology is designed to provide students with the knowledge and skills to operate a personal computer. The focus of the program will include general computer usage, keyboarding, Windows, Word, Excel, PowerPoint, email and Internet. The program covers the competencies for the Digital Literacy certification.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)
- ITE 101 Introduction to Microcomputer (2 credits)
- ITE 130 Introduction to Internet Services (3 credits)
- ELECTIVE Technical Elective (1 credit)
- ELECTIVE Technical Elective (3 credits)
- ELECTIVE Technical Elective (3 credits)

Second Semester (12 Credits)
- ITE 115 Introduction to Computer Applications and Concepts (3 credits)
- BUS 106 Security Awareness for Managers (3 credits)
- ITE 140 Spreadsheet Software (3 credits)
- ELECTIVE Technical Elective (3 credits)

INSURANCE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 26
Program Purpose: NON-TRANSFER
Program Code: 221-212-58

The program is designed for individuals who seek employment in the insurance industry upon completion. The curriculum provides students with the knowledge and skills necessary in the insurance industry to help lessen the risks to businesses and individuals and effectively operate a profitable insurance agency.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
- ACC 211 Principles of Accounting I (4 credits)
- ISR 130 Principles of Insurance (3 credits)
- ISR 262 Personal Insurance (3 credits)
- ITE ITE 115 Introduction to Computer Applications & Concepts (3 credits)
  OR ITE Elective* (3 credits)

Second Semester (13 Credits)
- ACC 212 Principles of Accounting II (4 credits)
- ISR 266 Life and Health Insurance (3 credits)
- ISR 260 Commercial Insurance (3 credits)
- ISR 270 Insurance Agency Operations & Technology (3 credits)

Program Notes:
*ITE Elective with Division Approval
 MANAGEMENT SPECIALIST

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 15
Program Purpose: NON-TRANSFER
Program Code: 221-212-19

The Career Studies Certificate in Management Specialist is designed to provide students with business management concepts and skills needed to advance to higher levels of management responsibilities. This certificate may be beneficial to those students who want to train or retrain in preparation for a career change or add management job skills to an existing degree.

PROGRAM COURSE REQUIREMENTS
First Semester (15 Credits)
- BUS 100 Introduction to Business (3 credits)
- BUS 111 Principles of Supervision (3 credits)
- BUS 200 Principles of Management (3 credits)
- ELECTIVE BUS Elective* (3 credits)
- ELECTIVE BUS Elective* (3 credits)

Program Notes:
* Select two courses to satisfy the electives: BUS 116, 165, BUS 201, BUS 204, BUS 205, BUS 209, BUS 265

MANUFACTURING FABRICATION

Program Length: 2 semesters
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-952-01

Provides the skills, knowledge and some of the experience to fabricate projects through a combination of machining and welding courses.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)
- MAC 161 Machine Shop Practices I (3 credits)
- MAC 162 Machine Shop Practices II (3 credits)
- WEL 150 Welding Drawing and Interpretation (3 credits)
- WEL 117 Oxyfuel Welding and Cutting (3 credits)

Second Semester (13 Credits)
- WEL 130 Inert Gas Welding (3 credits)
- SDV 106 Preparation for Employment (1 credit)
- WEL 160 Gas Metal Arc Welding (3 credits)
- MAC 163 Machine Shop Practices III* (3 credits)
- MAC 164 Machine Shop Practices IV* (3 credits)

Program Notes:
* MAC 121 Computer Numerical Control I and MAC 122 Computer Numerical Control II may be taken in place of MAC 163 Machine Shop Practices III and MAC 164 Machine Shop Practices IV

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
MECHATRONICS

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 28
Program Purpose: NON-TRANSFER
Program Code: 221-736-01

The program prepares students for entry-level, industry-driven jobs based on the Siemens Certified Mechatronic Systems Assistant job profile and certification requirements. The curriculum follows a systems approach with students learning about individual components and system characteristics around an actual mechatronic system. The program will help meet the need for mid-skilled workers in engineering technology jobs related to electrical and mechanical engineering principles as applied in an advanced manufacturing firm.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)
- SDV 106 Preparation for Employment (1 credit)
- AST 232 Microcomputer Office Applications (3 credits)
- ETR 113 DC and AC Fundamentals I (3 credits)
- MEC 140 Introduction to Mechatronics (3 credits)
- IND 160 Introduction to Robotics (2 credits)
- SAF 127 Industrial Safety (2 credits)

Second Semester (14 Credits)
- MEC 155 Mechanisms (2 credits)
- MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics (3 Credits)
- MEC 230 Mechatronic Process Control (3 credits)
- IND 243 Principles and Applications of Mechatronics (3 credits)
- ETR 286 Principles and Applications of Robotics (3 credits)
MEDICAL CODING

Program Length: 2 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 24
Program Purpose: NON-TRANSFER
Program Code: 221-152-02

The health care industry has the need for trained individuals who can provide the necessary skills for medical coding. This course is designed to prepare individuals with the knowledge and skills necessary for employment as a medical coder. This objective is fulfilled through study and application by coding medical records using a variety of nomenclatures and classification systems.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)
___ HLT 143  Medical Terminology I (3 credits)
___ BIO 145  Human Anatomy & Physiology for the Health Sciences* (4 credits)
___ HLT 140  Introduction to Health Related Careers *** (2 credits)
___ ENG  ENG 101 Practical Writing I OR ENG 111 College Composition I (3 credits)

Second Semester (12 Credits)
___ HIT 253  Health Records Coding (4 credits)
___ HLT 144  Medical Terminology II (3 credits)
___ HIT 254  Advanced Coding & Reimburse (3 credits)
___ ITE 102  Computer and Info. Systems** (2 credits)

Program Notes:
* BIO 141-142 may be substituted for BIO 145.
** Students may check with Health Technology faculty for substitution.
*** HCT 100 Introduction to Health Care Occupations may be substituted for HLT 140

NETWORK ADMINISTRATION

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 12
Program Purpose: NON-TRANSFER
Program Code: 221-732-01

The Certificate in Network Administration is designed to provide students with the knowledge to administer local area networks. The student will be exposed to the theory and practice of network administration enabling them to manage enterprise critical resources.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)
___ ITN 113  Active Directory (3 credits)
___ ITN 101  Introduction to Network Concepts (3 credits)
___ ITN 112  Network Infrastructure (3 credits)
___ ITN 111  Server Administration (3 credits)
ORACLE SPECIALIST

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 12
Program Purpose: NON-TRANSFER
Program Code: 221-299-75

A relational database management system is the core component for an organization’s information management system, the most popular of which is Oracle. This program will provide students with the knowledge and experience to work with an Oracle database. The student will be exposed to the theory and practice of basic databases, SQL and PL/SQL, enabling them to manage enterprise critical resources.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)

- ITD 130 Database Fundamentals (3 credits)
- ITD 132 Structured Query Language (3 credits)
- ITD 134 PL/SQL Programming (3 credits)
- ITD 136 Database Management Software (3 credits)

OUTDOOR INTERPRETATION AND EDUCATION

Program Length: 1 semester
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 9
Program Purpose: NON-TRANSFER
Program Code: 221-460-15

Prepares students to organize, plan, and conduct outdoor educational activities and events. Skills are develop to protect and preserve natural resources to reduce the impact of activities, to conduct effective outdoor activities and events to provide an explanation of nature and the environment, and to minimize the impact of potential risk. This program is an add-on stackable credential that complements and builds on an individual’s previous education and work experience, enhancing their skill set.

PROGRAM COURSE REQUIREMENTS
First Semester (9 Credits)

- RPK 102 Outdoor Recreation in the Appalachian Ecosystem (2 credits)
- RPK 125 Resource Interpretation & Education (3 credits)
- RPK 265 Risk Management (3 credits)
- RPK 170 Recreational Backpacking* (1 credit)

Program Notes:
* Or Division Approval

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
OUTDOOR RECREATION

**Program Length:** 1 year (2 semesters)

**Academic Awards:** Career Studies Certificate

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 29

**Program Purpose:** NON-TRANSFER

**Program Code:** 221-460-35

Outdoor recreation activities are available in most areas, and visiting state and national parks is popular regardless of the state of the economy. State, national and other park services employ many employees in various types and classifications of jobs. At the heart of outdoor recreation activities, an integrated trail system and waterway infrastructure is necessary for adventure tourism and outdoor recreation activities such as hiking, biking, kayaking, canoeing, and ATV riding. This curriculum provides an add-on credential for those interested into getting into the outdoor recreation or parks and recreation industries.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (15 Credits)**
- RPK 100 Introduction to Recreation, Parks & Leisure Studies (3 Credits)
- RPK 103 Preparation for Wilderness Adventure (1 credit)
- RPK 141 Leadership & Supervision (3 credits)
- RPK 140 Land Use Ethics (1 credit)
- RPK 160 Wilderness First Aid (2 credits)
- RPK 131 Kayaking* (1 credit)
- RPK 150 Mountain Biking* (1 credit)
- ITE 115 Introduction to Computer Applications & Concepts (3 credits)

**Second Semester (14 Credits)**
- RPK 102 Outdoor Recreation in the Appalachian Ecosystem (2 credits)
- MKT 170 Customer Service (2 credits)
- RPK 265 Risk Management (3 credits)
- RPK RPK 190 Coordinated Internship OR RPK 198 Capstone Course (2 credits)
- RPK 125 Resource Interpretation & Education (3 credits)
- RPK 170 Recreational Backpacking* (1 credit)
- RPK 151 Orienteering (1 credit)

**Program Notes:**
* Or division approval
PARAOPTOMETRIC

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The Career Studies Certificate in Paraoptometric is designed to provide students with the knowledge and skills to carry out a wide variety of front desk procedures in an optometrist office such as scheduling appointments, recalling patients, accepting payments, etc. They may also be trained in the different styles of eyewear, frame repair and adjusting, office materials, purchasing and other duties of a non-technical nature. Students can build on the certificate to earn more advanced certification in the field of Paraoptometric such as assistant, technician, coding and administrative assessment.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (13 Credits)**
- ___ HLT 143 Medical Terminology I (3 credits)
- ___ OPT 105 Anatomy, Physiology & Pathology of Eye (3 credit)
- ___ OPT 154 Optical Business Management (3 credits)
- ___ SDV 106 Preparation for Employment (1 credit)
- ___ ITE 115 Introduction to Computer Applications & Concepts (3 credits)

**Second Semester (15 Credits)**
- ___ ENG 101 Practical Writing I (3 credits)
- ___ HLT 144 Medical Terminology II (3 credits)
- ___ PSY 230 Developmental Psychology (3 credits)
- ___ OPT 195 Topics in Paraoptometric (5 credits)
- ___ OPT 196 On-Site Training in Optometric Offices (1 credit)
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This program is designed to prepare students to assist and support licensed pharmacists in providing health care and medications to patients. Students will obtain a broad knowledge of pharmacy practice and be skilled in the techniques required to order, stock, package, prepare, and dispense medications under the supervision of a licensed pharmacist. Upon completion of the curriculum, students will be eligible to take the National Pharmacy Technician Certification Examination.

**PROGRAM COURSE REQUIREMENTS**

**First Semester (12 Credits)**

- **HLT 143** Medical Terminology I (3 credits)
- **HLT 240** Consumer Health Education (3 credits)
- **HLT 261** Basic Pharmacy I (3 credits)
- **AST 232** Microcomputer Office App (3 credits)

**Second Semester (13 Credits)**

- **HLT 144** Medical Terminology II (3 credits)
- **HLT 190** Coordinated Internship (1 credits)
- **HLT 250** General Pharmacology (3 credits)
- **HLT 290** Coordinated Internship in Pharmacy Technician (4 credits)
- **MTH 126** Mathematics for Allied Health (2 credits)

**Program Notes:**

*Students are required to have a background check from the Dept. of State Police by the completion of the first semester.*
PHLEBOTOMY

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-151-02

The Career Studies Certificate is designed to prepare graduates who collect and process blood and other samples for medical laboratory analysis. Phlebotomists work in hospitals, medical clinics, and commercial laboratories and in other settings where blood is collected from patients. The curriculum provides learning experiences in the classroom, laboratory, and at approved clinical affiliates.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)
___ SDV 100 College Success Skills (1 credit)
___ MDL 105 Phlebotomy (3 credit)
___ BIO 145 Human Anatomy & Physiology for the Health Sciences* (4 credits)
___ ITE 101 Introduction to Microcomputers (2 credits)
___ HLT 143 Medical Terminology I (3 credits)

Second Semester (12 Credits)
___ MDL 190 Coordinated Internship Prac. In Phlebotomy*** (3 credits)
___ MDL 198 Seminar & Project Phlebotomy (3 credits)
___ ENG 101 Practical Writing I (3 credits)
___ HLT 144 Medical Terminology II (3 credits)

Program Notes:
*Students without a ‘C’ or better in high school biology will need BIO 20 prior to BIO145.
**Students are required to have a background check from the department of State Police by completion of the first semester. A drug screen is also required.
***Students must complete MDL 190 within one year of taking MDL 105.
PRECISION MACHINING

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 29
Program Purpose: NON-TRANSFER
Program Code: 221-883-10

Good machinists are in high demand across the nation. It is the machinist who is responsible for forming out of the various metal designs which the engineer sends to them in the form of a blueprint. It requires a great deal of skills to be able to machine very detailed parts by using lathes, milling machines and grinders. The instruction received from the program of study should result in more rapid advancement and reduce new employee training time once employment has been obtained. This program will prepare students to be CNC programmers and/or operators leading to full-time employment.

PROGRAM COURSE REQUIREMENTS
First Semester (14 Credits)

- MTH 103  Applied Technical Mathematics I (3 credits)
- ITE 102  Computers & Information Systems (1 credit)
- SAF 127  Industry Safety (2 credits)
- MAC 161  Machine Shop Practices I (3 credits)
- MAC 162  Machine Shop Practices II (3 credits)
- DRF 161  Blueprint Reading I (2 credits)

Second Semester (15 Credits)

- MAC 163  Machine Shop Practices III (3 credits)
- MAC 164  Machine Shop Practices IV (3 credits)
- MAC 150  Introduction to CAM (2 credits)
- MAC 121  Numerical Control I (3 credits)
- MAC 122  Numerical Control II (3 credits)
- SDV 106  Preparation for Employment (1 credit)

REGISTERED NURSE TO PARAMEDIC BRIDGE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 11
Program Purpose: NON-TRANSFER
Program Code: 221-146-07

Designed to address areas of the National Paramedic Curriculum not clearly addressed in RN curricula. Concentration will be placed on advanced airway management, pre-hospital patient assessment, trauma and medical emergency management. Pediatrics, hazardous material incidents, rescue and ambulance operations are also covered. The program will prepare the RN for the National Registry paramedic examination.

PROGRAM COURSE REQUIREMENTS
First Semester (Fall, 6 Credits)

- EMS 193  Studies in RN to Paramedic I (4 credits)
- EMS 290  Coordinated Internship RN to Paramedic Clinical I (2 credit)

Second Semester (Spring, 5 Credits)

- EMS 293  Studies in RN to Paramedic II (3 credits)
- EMS 290  Coordinated Internship RN to Paramedic Clinical II (2 credit)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
### RENEWABLE ENERGY & ENERGY EFFICIENCY

**Program Length:** 1 year (2 semesters)

**Academic Awards:** Career Studies Certificate

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 29

**Program Purpose:** NON-TRANSFER

**Program Code:** 221-706-40

The Renewable Energy & Energy Efficiency Career Studies Certificate is designed to prepare students for employment upon graduation as technicians in the energy sector with emphasis on installation of solar, wind, and geothermal power generation systems.

#### PROGRAM COURSE REQUIREMENTS

**First Semester (14 Credits)**

- MTH 103 Applied Technical Math I (3 credits)
- ENV 170 Fundamentals of Energy Technology (2 credits)
- ENE 100 Conventional & Alternative Energy Systems (4 credits)
- ENV 193 Studies in “Your Role in the Green Environment” (1 credit)
- ELE 140 Basic Electricity & Machinery (4 credits)

**Second Semester (15 Credits)**

- ENE 105 Solar Thermal Active & Passive Tech (4 credits)
- ECO 115 Understanding our Environment and Economic Intro. (3 credits)
- ENE 220 Wind Power Generation (4 credits)
- ELE 177 Photovoltaic Energy Systems (4 credits) OR ENE 230 Geothermal Applications

**Program Notes:**

* ELE 140 or equivalent required pre/co-requisite

### SEMI-AUTOMATED WELDING

**Program Length:** 1 semester

**Academic Awards:** Career Studies Certificate

**Special Program Admission Required:** Competency in English and Math Essentials

**Total Credit Hours Required:** 12

**Program Purpose:** NON-TRANSFER

**Program Code:** 221-995-50

This program is designed to meet the employment requirements of employers hiring welding to perform the Semi-Automated Welding (MIG) process. The curriculum is designed to prepare students to perform this process and to pass the welding test employers use as a part of their hiring process.

#### PROGRAM COURSE REQUIREMENTS

**First Semester (12 Credits)**

- WEL 117 Oxy Fuel Welding and Cutting (3 credits)
- WEL 160 Gas Metal Arc Welding (3 credits)
- WEL 123 Shielded Metal Arc Welding (3 credits)
- WEL 130 Inert Gas Welding (3 credits)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
SOFTWARE DEVELOPMENT

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 25
Program Purpose: NON-TRANSFER
Program Code: 221-299-01

Provides the skills, knowledge, and some of the experience required for employment in computer programming and systems analysis and design.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

- ITP 100  Software Design (3 credits)
- ITD 110  Web Page Design I Basics (3 credits)
- ITP 112  Visual Basic .NET I (4 credits)
- ITE 115  Introduction to Computer Applications & Concepts (3 credits)

Second Semester (12 Credits)

- ITP 120  Java Programming I (3 credits)
- ITD 132  Structured Query Language (3 credits)
- ITP 251  Systems Analysis and Design (3 credits)
- ITP 298  Seminar & Project in Capstone (3 credits)

SOFTWARE QUALITY ASSURANCE

Program Length: 1 year (2 semesters)
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 26
Program Purpose: NON-TRANSFER
Program Code: 221-299-90

The software quality assurance curriculum prepares students to work in the information technology industry as a software quality assurance technician or software tester. The focus of the program is on identifying problems with the system being tested and providing the appropriate documentation to explain the issues found so that it can be corrected.

PROGRAM COURSE REQUIREMENTS
First Semester (13 Credits)

- AST 205  Business Communications (3 credits)
- BUS 121  Business Mathematics I (3 credits)
- AST 117  Keyboarding for Computer Usage (1 credit)
- ITE 115  Introduction to Computer Applications & Concepts (3 credits)
- ITP 100  Software Design (3 credits)

Second Semester (13 Credits)

- ITE 150  Desktop Database Software (3 credits)
- ITP 112  Visual Basic .NET I (4 credits)
- BUS 209  Continuous Quality Improvement (3 credits)
- SDV 100  College Success Skills (1 credit)
- ITE 298  Seminar & Project In Capstone (2 credits)
TRADITIONAL MUSIC

Program Length: 2 semesters
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 24
Program Purpose: NON-TRANSFER
Program Code: 221-641-70

Designed to teach students to play a variety of traditional bluegrass instruments.

PROGRAM COURSE REQUIREMENTS
First Semester (12 Credits)

___ MUS 193 Studies in Traditional Music I** 3 (per section) (3-12 credits)

Second Semester (12 Credits)

___ MUS 293 Studies in Traditional Music II** 3 (per section) (3-12 credits)

Program Notes:
**Sections of Traditional Music include: Fiddle, Bluegrass Banjo, Clawhammer Banjo, Mandolin, Traditional Guitar, Flatpicking Guitar, Acoustic Bass and Bluegrass String Band.
Courses may be repeated for credit.

WELDING

Program Length: 2 semesters
Academic Awards: Career Studies Certificate
Special Program Admission Required: Competency in English and Math Essentials
Total Credit Hours Required: 28
Program Purpose: NON-TRANSFER
Program Code: 221-995-01

With industries in Virginia using more and varied types of welding, there is a need for training personnel to meet their requirements. The welding curriculum is designed to train persons for full-time employment upon completion of the program.

PROGRAM COURSE REQUIREMENTS
First Semester (15 Credits)

___ WEL 117 Oxyfuel Welding and Cutting (3 credits)
___ WEL 123 Shielded Metal Arc Welding (Basic) (3 credits)
___ WEL 130 Inert Gas Welding (3 credits)
___ WEL 160 Gas Metal Arc Welding (3 credits)
___ ITE 102 Computers & Information Systems (1 credit)
___ SAF 127 Industrial Safety (2 credits)

Second Semester (13 Credits)

___ SDV 106 Preparation for Employment (1 credit)
___ WEL 150 Welding Drawing and Interpretation (3 credits)
___ WEL 126 Pipe Welding I (3 credits)
___ WEL 141 Welder Qualifications Test I (3 credits)
___ WEL 129 Piping and Fabrication (3 credits)

For additional information, refer to the online version of the SWCC Catalog & Student Handbook at sw.edu/catalog/
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EQUAL OPPORTUNITY/AFFIRMATIVE ACTION STATEMENT

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The college is subject to Titles VI and VII of the Civil Rights Act of 1964; Title IX of the Education Amendments of 1972; Sections 503 and 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990, as amended; the Age Discrimination in Employment Act; the Equal Pay Act; the Vietnam Era Veterans’ Readjustment Assistance Act of 1974; Federal Executive Order 11246; Genetic Information Nondiscrimination Act of 2008 (GINA); Virginia’s State Executive Order Number Two; and all other applicable rules and regulations.

Information about campus, workplace violence prevention, and Title IX (http://sw.edu/title-ix/) is available online.

Individuals with questions or concerns about any of these regulations or related issues should contact:

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