PROGRAMS THAT LEAD DIRECTLY TO EMPLOYMENT

ASSOCIATE IN APPLIED SCIENCE

Southwestern Illinois College offers, but is not limited to, the following degree and certificate programs

■ Degree
☐ Degree & Certificate Program
• Certificate

☐ Accounting Program
■ Accounting AAS
- • Bookkeeping Certificate

☐ Administration of Justice Program
- ■ Administration of Justice AAS
  - • Administration of Justice Certificate
  - • Armed Private Security Certificate
  - • Unarmed Private Security Certificate
  - • Police Academy Certificate

☐ Automotive Collision Repair Technology Program
- ■ Automotive Collision Repair Technology AAS
  - • Automotive Refinishing Certificate
  - • Mechanical Systems Certificate
  - • Non-Structural Repair Certificate
  - • Structural Repair Certificate

☐ Aviation Maintenance Technology Program
- ■ Aviation Maintenance Technology AAS
  - • Airframe & Powerplant Certificate
  - • Airframe Certificate
  - • Powerplant Certificate

■ Aviation Management AAS
- • Aircraft Dispatcher Certificate

☐ Aviation Pilot Training Program
- ■ Aviation Pilot Training AAS
  - • Aviation Pilot Training Certificate
  - • Private Pilot Certificate

☐ Commercial Maintenance Mechanics Program
- ■ Commercial Maintenance Mechanics AAS
  - • Commercial Maintenance Mechanics Certificate

☐ Computer Aided Drafting Program
- ■ Computer Aided Drafting AAS
  General, Machine or Architecture Specialization
  - • Computer Aided Drafting Certificate

☐ Computer Information Systems Program
- ■ Computer Information Systems AAS
- ■ Computer Management Information Systems AAS
- ■ Database Development and Management AAS
- ■ Software Development AAS
- ■ Tech Support/Help Desk AAS
  - • C# Programming Certificate
  - • C++ Programming Certificate
  - • Database Programming Certificate
  - • Java Programming Certificate
  - • Visual Basic Programming Certificate

☐ Construction Apprenticeship Training Program
- ■ Construction Bricklayer AAS
  - • Bricklayer Apprentice Certificate
- ■ Construction Carpentry AAS
  - • Carpentry Apprentice Certificate
- ■ Construction Cement Mason AAS
  - • Construction Cement Mason Certificate
- ■ Construction Electrical Specialist AAS
  - • Construction Electrical Lineman Certificate
  - • Construction Electrical Residential Certificate
  - • Construction Electrical Telecom Certificate
  - • Construction Electrical Wireman Certificate
- ■ Construction Ironworker AAS
  - • Ironworker Apprentice Certificate
- ■ Construction Painting and Decorating AAS
  - • Painting and Decorating Apprentice Certificate
- ■ Construction Sheetmetal AAS
  - • Construction Sheetmetal Apprentice Certificate

☐ Construction Management Technology Program
- ■ Construction Management Technology AAS
  - • Building Performance Certificate
  - • Building Information Modeling Certificate
  - • Construction Management Technology Certificate
  - • Building Trades Safety

☐ Culinary Arts and Food Management Program
- ■ Culinary Arts and Food Management AAS
  - • Culinary Arts Certificate
  - • Food Service Certificate
  - • Food Service and Management Certificate
  - • Baking & Pastry Certificate

☐ Early Childhood Education Program
- ■ Early Childhood Education AAS
  - • Early Childhood Education Certificate

☐ Electrical/Electronics Technology Program
- ■ Electronics Technology AAS
  - • Electronics Technology Certificate
  - • Automated Manufacturing Systems Certificate
  - • Microcomputer Hardware Maintenance Certificate
- ■ Industrial Electricity AAS
  - • Electrical Technology Certificate
  - • Industrial Electricity Certificate

• Emergency Medical Technician Certificate

☐ Fire Science Program
- ■ Fire Science AAS
  - • Confined Space Rescue I & II Certificate
  - • Fire Apparatus Engineer Certificate
  - • Fire Fighter I & II Certificate
  - • Fire Service Instructor I Certificate
  - • Fire Service Instructor II Certificate
  - • Fire Service Officer I Certificate
  - • Fire Service Officer II Certificate
  - • Haz Mat First Responder Certificate
  - • Rope Rescue I & II Certificate
  - • Trench Rescue I & II Certificate
  - • Vehicle Rescue Operations Certificate
  - • Water Rescue I & II Certificate

- ■ Degree
- ☐ Degree & Certificate Program
- • Certificate

- ☐ Graphic Communications Program
  - ■ Graphic Communications AAS
    - • Graphic Design Certificate
- ■ Health Information Technology AAS
- ☐ Heating, Ventilation, Air Conditioning and Refrigeration Program
  - ■ Heating, Ventilation, Air Conditioning and Refrigeration AAS
    - • HVAR Certificate
- ☐ Horticulture Program
  - ■ Horticulture AAS
    General Horticulture, Turf Management, Floral Design, Nursery and Landscaping, Greenhouse, or Fruits and Vegetables specialization
    - • Horticulture Certificate
    - • Floral Design Certificate
- ☐ Human Services Technology Program
  - ■ Human Services Technology AAS
    Youth Care, Elder Care or Criminal Justice Social Services Specialization
    - • Psychiatric Rehabilitation Certificate
- ☐ Industrial Maintenance Mechanics Program
  - ■ Industrial Maintenance Mechanics AAS
    - • Industrial Maintenance Mechanics Certificate
    - • Stationary Engineering Certificate
- ☐ Management Program
  - ■ Management AAS
    - • Management Certificate
- ☐ Marketing Program
  - ■ Marketing AAS
    - • Marketing Certificate
    - • Digital Marketing Certificate
- ☐ Massage Therapy Program
  - ■ Massage Therapy AAS
    - • Massage Therapy Certificate
    - • Neuromuscular Therapy Certificate
- ☐ Medical Assistant Program
  - ■ Medical Assistant AAS
    - • Medical Assistant Certificate
- ■ Medical Billing & Coding
- ☐ Medical Laboratory Technology Program
  - ■ Medical Laboratory Technology AAS
    - • Phlebotomy Certificate
- ☐ Music Technology Program
  - ■ Music Technology AAS
    - • Recording Technology Certificate
- ☐ Network Design and Administration Program
  - ■ Network Design and Administration AAS
    - • Network Associate Certificate
    - • Cybersecurity Specialist
- • Nurse Assistant Certificate
- ■ Nursing Education AAS
- ☐ Office Administration and Technology Program
  - ■ Office Administration AAS
  - ■ Office Technology Specialist AAS
    - • Administrative Office Support Certificate
    - • Microsoft Office Specialist Certificate
    - • Office Support Technology Certificate
    - • Office Technology Assistant I Certificate
    - • Office Technology Assistant II Certificate
    - • Virtual Assistant Certificate
- ■ Paralegal Studies AAS
- ☐ Paramedic/Paramedicine Program
  - ■ Paramedicine AAS
    - • Paramedic Certificate
- ☐ Paraprofessional Education Program
  - ■ Paraprofessional Education AAS
    - • Paraprofessional Education Certificate
- ■ Physical Therapist Assistant AAS
- ☐ Precision Machining Technology Program
  - ■ Precision Machining Technology AAS
    - • Precision Machining Technology Certificate
    - • CNC Machining Certificate
    - • Mastercam Certificate
    - • Solid Works Certificate
    - • Advanced CNC Programming Certificate
- ■ Radiologic Technology AAS
- ■ Respiratory Care AAS
- ☐ Sign Language Studies: Interpreter Program
  - ■ Sign Language Studies: Interpreter AAS
    - • Sign Language/Basic Communication Certificate
- • Warehousing and Distribution Certificate
- ☐ Web Designer Program
  - ■ Web Designer AAS
    - • Web Coding Certificate
    - • Web Design Certificate
- ☐ Web Development and Administration Program
  - ■ Web Development and Administration AAS
    - • Web Coding Certificate
    - • Web Design Certificate
    - • Java Programming Certificate
- ☐ Welding Technology Program
  - ■ Welding Technology AAS
    - • Welding Technology Certificate
    - • Welding Technology Advanced Certificate
    - • Welding Technology Specialized Certificate
    - • Advanced Welding Manufacturing Certificate

Associate in Applied Science

Description:
These requirements are for students who plan to begin their career upon completion of their two-year program.

Admission:
Most AAS programs do not require special application or admission requirements. However, students planning to pursue a degree in some Health Sciences fields must meet the admission requirements outlined for each degree on the pages that follow and be formally accepted into the program prior to enrolling in major courses. The following programs have special admission procedures: Health Information Technology, Medical Assistant, Medical Billing & Coding, Medical Laboratory Technology, Nursing Education, Paramedic, Physical Therapist Assistant, Radiologic Technology and Respiratory Care.

Terms:
Students have six years to complete the requirements required for the program they have declared. If the requirements are not completed within six years, students will be required to meet degree requirements for the program in effect at that time. However, students not enrolled for three consecutive semesters (not including summer) must meet the curriculum requirements in effect at the time of re-enrollment. Students can always choose to complete the current curriculum degree requirements.

The above terms do not apply to the following Health Sciences programs: Health Information Technology, Medical Assistant, Massage Therapy, Medical Laboratory Technology, Nursing Education, Paramedicine, Physical Therapist Assistant, Radiologic Technology and Respiratory Care. Regulations for completion of these programs are clearly outlined in the respective Student Handbooks distributed to students upon admission or enrollment in the program.

Total Hours:
A minimum of 64 semester credits is required for AAS degrees. More than 64 credits is required for some degrees. Refer to the blue program pages for the specific course requirements for each of the AAS degrees/certificates.

General Education Degree Requirements:
Students are required to complete a minimum of 15 semester credits of General Education coursework which can include course work in Communication, Arts and Humanities, Social and Behavioral Sciences, and Mathematics and Science. Reference the adjacent blue page to determine the general education courses that are classified as: Communication, Humanities, Social Science, Mathematics, Life Science and Physical Science, Human Well-Being and Human Relations requirements.

A minimum grade of C is required for ENG 101.

Residency:
Fifteen of the last 24 credits or an accumulation of 36 credits must be completed at SWIC. Active duty U.S. armed forces and reserve service members must earn only 15 credits at SWIC.

GPA:
A minimum cumulative GPA of 2.00 is required for a degree.

SWIC 2+2 Agreements:
SWIC has developed a number of 2+2 Agreements with four-year universities to allow for seamless transfer into specific majors. These articulations list recommended coursework to prepare SWIC graduates for entry at the junior level. Please visit swic.edu/transfer to learn more about 2+2 Agreements.

Human Relations:
One of the following courses must be completed. Some degrees require a specific course within this group. Check the course requirements as outlined in the AAS program guides that follow prior to selecting courses. For reference, these courses are listed in white in the general education areas.

_____ **Humanities:** ART 110, HIST 230, LIT 117, LIT 215
_____ **Social Science:** ANTH 210, ECON 115, ECON 201, GEOG 151, HIST 180, HIST 181, HIST 292, POLS 150
_____ **Behavioral Science:** PSYC 200, PSYC 265, PSYC 267, PSYC 277, PSYC 295, SOC 153, SOC 203, SOC 210, SOC 222, SOC 230, SOC 255, SOC 259, SOC 265

Math and English Course Placement:
All degree-seeking students are required to be assessed and placed in the appropriate math and/or English classes. For more information, please refer to the *Math and English Course Placement* section in this catalog.

College Success Strategies:
Beginning students are encouraged to enroll in ED 101 College Success Strategies. For information regarding this course, see the *Course Description Guide* at the back of the catalog.

Apply for Graduation:
Students must submit an application to Enrollment Services. Applications can be submitted through eSTORM or through Enrollment Services. To be considered for a specific term, applications must be received by the following dates:

Term	Application Date
Fall/December	Oct. 15
Spring/May	Feb. 15
Summer/July	June 15

General Education Course Classifications for the Associate in Applied Science Degree

Refer to the blue AAS program pages for the specific course requirements for each of the AAS degrees. Students must complete at least 15 semester hours of General Education requirements. This page is a reference for general education courses in the areas of Communications, Humanities, Social/Behavioral Science, Mathematics, Life/Physical Science, Human Well-Being electives and the Human Relations requirement.

Communications

_____ ENG 101 **with a minimum grade of "C" is required for all Associate degrees**

_____ CHIN 101
_____ CHIN 102
_____ ENG 102
_____ ENG 103
_____ ENG 105
_____ ENG 106
_____ ENG 107
_____ ENG 108
_____ ENG 207
_____ FILM 105
_____ FREN 101
_____ FREN 102
_____ FREN 201
_____ FREN 202
_____ GERM 101
_____ GERM 102
_____ GERM 201
_____ GERM 202
_____ JOUR 101
_____ JOUR 110
_____ MCOM 201
_____ OAT 261
_____ RUSS 101
_____ RUS 102
_____ SPAN 101
_____ SPAN 102
_____ SPAN 201
_____ SPAN 202
_____ SPCH 151
_____ SPCH 155
_____ SPCH 170
_____ SPCH 180
_____ SPCH 190
_____ SPCH 200
_____ SPCH 213

Humanities

_____ ART 101
_____ ART 102
_____ ART 103
_____ ART 104
_____ ART 105
_____ ART 106
_____ **ART 110**
_____ ED 293
_____ FILM 115
_____ FILM 215
_____ **HIST 230**
_____ HIST 286
_____ HUM 200
_____ LIT 113
_____ **LIT 117**
_____ LIT 120
_____ LIT 125
_____ LIT 133
_____ LIT 134
_____ LIT 201
_____ LIT 202
_____ LIT 205
_____ LIT 208
_____ LIT 213
_____ LIT 214
_____ **LIT 215**
_____ LIT 219
_____ LIT 251
_____ LIT 252
_____ LIT 290
_____ LIT 291
_____ LIT 293
_____ MUS 101
_____ MUS 102
_____ MUS 103
_____ MUS 110
_____ PHIL 150
_____ PHIL 151
_____ PHIL 152
_____ PHIL 153
_____ PHIL 154
_____ PHIL 155
_____ PHIL 156
_____ PHIL 160
_____ PHIL 171
_____ THEA 120

Social/Behavioral Sciences

_____ ANTH 150
_____ ANTH 160
_____ ANTH 175
_____ **ANTH 210**
_____ ANTH 250
_____ **ECON 115**
_____ **ECON 201**
_____ ECON 202
_____ ED 252
_____ GEOG 143
_____ **GEOG 151**
_____ GEOG 152
_____ GEOG 202
_____ GEOG 240
_____ GEOG 241
_____ HIST 101
_____ HIST 102
_____ HIST 114
_____ HIST 115
_____ HIST 117
_____ HIST 118
_____ HIST 151
_____ HIST 152
_____ HIST 160
_____ HIST 161
_____ **HIST 180**
_____ **HIST 181**
_____ HIST 232
_____ HIST 234
_____ HIST 250
_____ HIST 282
_____ HIST 288
_____ **HIST 292**
_____ **POLS 150**
_____ POLS 240
_____ POLS 261
_____ POLS 262
_____ POLS 270
_____ POLS 273
_____ POLS 289
_____ POLS 290
_____ POLS 292
_____ PSYC 151
_____ **PSYC 200**
_____ PSYC 210
_____ PSYC 225
_____ PSYC 250
_____ PSYC 251
_____ PSYC 252
_____ PSYC 253
_____ PSYC 254
_____ PSYC 259
_____ PSYC 260
_____ **PSYC 265**
_____ PSYC 266
_____ **PSYC 267**
_____ PSYC 270
_____ PSYC 280
_____ **PSYC 277**
_____ PSYC 288
_____ **PSYC 295**
_____ **SOC 153**
_____ **SOC 203**
_____ **SOC 210**
_____ **SOC 222**
_____ **SOC 230**
_____ **SOC 255**
_____ **SOC 259**
_____ **SOC 265**

Human Well-Being (total of 2 semester credits)

_____ HES 130
_____ HES 131
_____ HES 151
_____ HES 152
_____ HES 154
_____ HES 155
_____ HES 156
_____ HES 158
_____ HRO 150

Mathematics

_____ MATH 107
_____ MATH 111
_____ MATH 112
_____ MATH 113
_____ MATH 114
_____ MATH 191
_____ MATH 203
_____ MATH 204
_____ MATH 213
_____ BUS 205

Life Science/Physical Science

_____ BIOL 100
_____ BIOL 101
_____ BIOL 105
_____ BIOL 106
_____ BIOL 108
_____ BIOL 151
_____ BIOL 157
_____ BIOL 158
_____ BIOL 204
_____ BIOL 250
_____ BIOL 270
_____ ATY 101
_____ CHEM 100
_____ CHEM 101
_____ CHEM 105
_____ ES 101
_____ ES 102
_____ ES 114
_____ ES 180
_____ ES 250
_____ PHYS 101
_____ PHYS 151
_____ PHYS 152
_____ PHYS 204

Specific Program Requirements

Each Associate in Applied Science degree has unique course requirements. The specific course requirements are on the pages that follow. The degree programs are listed in alphabetical order.

XXX Human Relations Classes

Accounting

Coordinator/Faculty: Sue Taylor, ext. 5434
Faculty: Jessica Talleur, Dawn Peters

Dean: Janet Fontenot

The Accounting AAS program prepares students for a variety of jobs including entry-level accounting positions, or for a career as a full-charge bookkeeper. The curriculum includes ACCT 212 Certified Bookkeeper Review. Upon successful completion of the course, students may choose to sit for the Certified Bookkeeper exam, administered by an independent provider and scheduled by the student. This program does not prepare a student to sit for the CPA exam. Individuals who intend to transfer upon graduation to a four-year institution for an undergraduate degree in accounting should review the Associate in Science degree curriculum for business transfer (Accounting) before selecting the AAS degree program. Course availability varies from semester to semester. Students must pay close attention to the requisites for each course. **Contact an academic advisor or the program coordinator for more information about this degree program including the master course schedule.**

The schedule is also available on the degree program. Web page: swic.edu/acctaas/.

facebook.com/swic.aas.amm

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (049A)

First Year

Fall Semester			**Semester Credits**
BUS	101	Introduction to Business	3
MGMT	102	Business Mathematics	3
ACCT	110	Financial Accounting	4
PSYC	151	General Psychology	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
ACCT	111	Managerial Accounting	4
MGMT	241	Fundamentals of Finance	3
ECON	201	Principles of Economics I (Macro)	3
SPCH	151	Fundamentals of Public Speaking	3
OAT	175	Electronic Spreadsheets	3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
ACCT	106	Introduction to Quickbooks	3
ACCT	210	Cost Accounting	3
ACCT	211	Intermediate Accounting	3
BUS	215	Business Law I	3
MGMT	206	Individual/Business Income Tax **OR**	3
ACCT	206	Individual/Business Income Tax	
Human Well-Being Elective			2
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
ACCT	215	Accounting for Small Business	3
ACCT	212	Certified Bookkeeper Review	3
MGMT	213	Human Relations in the Workplace	3
MGMT	214	Principles of Management	3
MGMT	240	Ethics in the Workplace	1
General Education Elective			1
Specified Elective			3
Total Semester Credits			**17**

Total Program Credits **66**

Specified Electives:

MGMT	269	Accounting AAS Internship	3
MGMT	270	Business Planning	3
OAT	185	Database Applications	3
OAT	261	Business Communications	3
MKT	243	Basic Selling Techniques	3
OAT	180	Word Processing	3

Internships

Internships can enhance a student's résumé, particularly if the student does not have experience in his or her chosen field of study. You do not need to be registered in a class to participate in an internship although you have the option to choose one under the Specified Electives requirement. If you do not choose to take the course, you may still receive advice about finding a suitable internship position from the degree program coordinator. Students should have a minimum of nine semester credits of Accounting coursework completed before beginning an accounting internship.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in accounting by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction.

Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Bookkeeping Certificate (049C)

The Bookkeeping Certificate prepares students for entry-level accounting support staff positions. The certificate provides the foundation for a career as a full-charge bookkeeper. Those with experience in the bookkeeping field who lack formal education will find the certificate useful in quantifying their experience for prospective employers and/or clients.

ACCT	106	Introduction to Quickbooks	3
ACCT	110	Financial Accounting	4
ACCT	111	Managerial Accounting	4
ACCT	210	Cost Accounting	3
ACCT	211	Intermediate Accounting	3
ACCT	212	Certified Bookkeeper Review	3
ACCT	215	Accounting for Small Businesses	3
MGMT	206	Individual and Business Income Tax **OR**	3
ACCT	206	Individual and Business Income Tax	
MGMT	241	Fundamentals of Finance	3
OAT	175	Electronic Spreadsheet	3
Total Credits			**32**

Career Opportunities

A graduate of the Accounting AAS program is prepared for the following positions:

- Accounting clerk
- Full-charge bookkeeper
- Accounting support staff

Visit the Occupational Outlook Handbook website for job market information: www.bls.gov/oco/.

Phi Beta Lambda-Abe Small Chapter

Phi Beta Lambda is a nonprofit educational association of students preparing for careers in business. All SWIC students are welcome to join.

Contact the Business Division at 618-235-2700, ext. 5313, for more information.

Administration of Justice

Coordinator/Faculty: Van Muschler, ext. 5653
Faculty: Bill Sax

Dean: Julie Muertz

This two-year curriculum and the graduation degree requirements in the front of this catalog lead to the Associate in Applied Science degree for the student preparing for a career in Administration of Justice. Courses may transfer to senior institutions that offer a bachelor's degree in criminal justice. **See the program coordinator or an academic advisor for more information.**

SWIC and Southern Illinois University-Edwardsville have a 2+2 Agreement for Criminal Justice majors.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0029)

First Year

Fall Semester			**Semester Credits**
AOJ	100	Intro to Administration of Justice	3
AOJ	105	Police Administration	3
AOJ	151	Policing: Methods and Ethics	3
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology	3
AOJ Approved Elective*			3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
AOJ	153	Juvenile Delinquency	3
AOJ	155	Community Policing	3
ENG	102	Rhetoric & Composition II	3
POLS	150	Intro to American Government	3
SOC	153	Introductory Sociology	3
Total Semester Credits			**15**

Second Year

Fall Semester			**Semester Credits**
AOJ	203	Criminal Law & Admin of Justice	3
AOJ	251	Rules of Criminal Evidence	3
SPCH	151	Fundamentals of Public Speaking	3
Sociology Course***			3
CIS Electives **OR**			3
Approved Computer Course			
Total Semester Credits			**15**

Spring Semester			**Semester Credits**
EMS	105	First Responder-EMS**	4
AOJ	255	Criminal Investigation Case Preparation	3
AOJ	290	Police Report Writing	3
AOJ		Elective*	3
Approved Elective****			4
Total Semester Credits			**17**

Total Program Credits	**65**

Students must meet all graduation requirements, including Human Relations, identified at the front of the catalog.

*AOJ electives may be selected from the following list of approved AOJ courses according to career goal. Law Enforcement: 101, 102, 110, 144, 145, 156, 160, 202, 204, 205, 256, 258, 278, 280 and HS 100; Corrections: 103, 106, 111, 250, 252, 261 and 278. Students with no criminal justice work experience or not planning to transfer to a senior institution should participate in a work-experience internship (AOJ 278) after completing 24 semester credits of AOJ-prefixed coursework and ENG 102 with a grade of C or better.

**EMS 110 may be substituted.

***SOC 203 is preferred. Any 200-level sociology course or AOJ 160 is acceptable.

****Electives may be selected from any of the following subject areas: Administration of Justice, Business, Foreign Language, Mathematics, Social Science, Physical Education, Life Sciences, Physical Sciences or an approved computer course: OAT 122, 128, 130, 131, 132, 133, 146, 155, 156, 164, 165, 170, 171, 172, 175, 180, 185, 190, 225, 230, 240, 273 and 285.

Administration of Justice Certificate (0030)

Those who want a concentrated program of study in only police science may enroll in the certificate program. Upon successful completion of the required courses, the student is awarded a certificate of program proficiency.

AOJ	100	Intro to Administration of Justice	3
AOJ	105	Police Administration	3
AOJ	151	Policing: Methods and Ethics	3
AOJ	153	Juvenile Delinquency	3
AOJ	203	Criminal Law & Admin of Justice	3
AOJ	251	Rules of Criminal Evidence	3
AOJ	255	Criminal Investigation Case Preparation	3
ENG	101	Rhetoric & Composition I	3
Elective			3
Total Credits			**27**

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

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Career Opportunities

A graduate of the Administration of Justice program is prepared to work as a:

- Police officer
- Patrol officer
- Security officer
- Corrections officer
- Deputy sheriff
- Community service officer

Police Academy Intern Training Program

Through the Illinois Law Enforcement Intern Training Act, qualified civilians may attend the Basic Law Enforcement Training Program. Traditionally, peace officers are hired by a law enforcement agency and then sent to a Police Academy for training. Now, qualified civilians have the opportunity to be trained prior to employment; and law enforcement agencies will have the opportunity to hire Police Academy-trained individuals ready for service.

Through the intern program, students will receive the basic academic and practical skills that a law enforcement officer requires in today's job market. The program meets the standards set by the Illinois Law Enforcement Training and Standards Board and provides accepted applicants with the same training received by sworn law enforcement officers. While completion of training does not guarantee employment with a law enforcement agency, there is a strong interest by police agencies to hire select individuals who have completed the basic Law Enforcement Training program.

The Police Academy Intern Training program is 10 weeks (400 hours) of intensive academic and physical training. The program includes all aspects of basic law enforcement such as legal issues, citizen interaction, communications, investigations, firearms, and defensive tactics. Successful completion of the curriculum and the State Certification Exam makes graduates eligible for employment as a law enforcement officer.

For additional information and application, visit the Police Academy website swicpa.com.

Certificate Programs

Police Academy Certificate (029A)

This certificate program is for individuals enrolled in the Police Academy as a full-time peace officer or accepted academy intern. Interns must successfully complete application requirements per the State of Illinois Intern Training Act.

AOJ	104	Police Officer Proficiencies	3
AOJ	150	Police Officer's Patrol Functions	3
AOJ	152	The Police Function & Human Behavior	3
AOJ	201	Law for Patrol Officers	5
AOJ	206	Police Traffic & Crash Management	2
AOJ	257	Patrol Investigations	3
FS	280	Haz Mat Awareness	.5
HES	130	Physical Fitness I	1
Total Credits			**20.5**

Armed Private Security Certificate (029B)

This short certificate prepares graduates for employment as armed security guards/officers. This program is approved by the Illinois Department of Professional Regulation for armed security guard certification. Students interested in pursuing this certificate must be 18 years of age and possess a FOID card.

AOJ	144	Security Officer Certification	2
AOJ	145	Introduction to Firearms	1

Unarmed Private Security Certificate (029C)

This course prepares graduates for employment as unarmed security guards/officers. It is approved by the Illinois Department of Professional Regulation.

AOJ	144	Security Officer Certification	2

Career Opportunities

A student attaining the Armed Private Security certificate is prepared to work as a(n):

- Security officer
- Armed security officer

Automotive Collision Repair Technology

Coordinator/Faculty: Claude Heimburger, ext. 7314
email: claude.heimburger@swic.edu

Dean: Bradley Sparks

The Automotive Collision Repair Technology program consists of an Associate in Applied Science degree and four different certificates of proficiency.

The Associate in Applied Science degree follows a course of study which incorporates a mix of technical courses from each of the four certificates, in addition to the required General Education courses and program electives. The four certificates allow students to learn groups of skills associated with the major areas of work in an auto collision repair shop such as: Non-Structural Repair, Structural Repair, Automotive Refinish and Mechanical Systems. This program is offered at the Sam Wolf Granite City Campus.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0081)

First Year

Fall Semester			**Semester Credits**
ACRT	111	Non-Structural Repair I	5
ACRT	131	Automotive Refinishing I	4
ENG	101	Rhetoric & Composition I	3
CIS	120	Introduction to the PC	1
CIS	125	Operating Systems/PC	1
SPCH	155	Interpersonal Communication	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
ACRT	121	Automotive Damage Analysis	5
ACRT	122	MIG Welding	4
GT	105	Intro to Technical Math **OR**	4
MATH	112	College Algebra **OR** higher level Math	
HES	151	Personal Health and Wellness **OR**	2
HES	152	First Aid-Medical Self Help	
ACRT	201	Automotive Repair – Internship	4
Total Semester Credits			**19**

Second Year

Fall Semester			**Semester Credits**
ACRT	141	Steering and Suspension I	2
ACRT	112	Non-structural Repair II	5
Social Science Course			3
ACRT Option Courses*			2
WLDT	253	GTAW/GMAW/FCAW/PAC	4
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
ACRT	142	Steering & Suspension II	3
ACRT	132	Automotive Refinishing II	3
Human Relations Course			3
ACRT	222	ACRT Advanced Welding	3
ACRT Option Courses*			4
Total Semester Credits			**16**

Total Program Credits	**68**

*ACRT Option courses are limited to ACRT program course prefixes only.

All students must complete graduation degree requirements listed at the beginning of the blue pages in this catalog.

Certificate Programs

Non-Structural Repair Certificate (081A)

ACRT	111	Non-Structural Repair I	5
ACRT	112	Non-Structural Repair II	5
ACRT	113	Non-Structural Repair III	3
ACRT	114	Non-Structural Repair IV	4
ACRT	115	Plastic Repair	5
Total Credits			**22**

Structural Repair Certificate (081B)

ACRT	121	Automotive Damage Analysis	5
ACRT	122	MIG Welding	4
ACRT	123	Straightening Structural Parts	5
ACRT	124	Panel Replacement I	2
ACRT	125	Panel Replacement II	4
ACRT	126	Panel Replacement III	4
Total Credits			**24**

Automotive Refinishing Certificate (081C)

ACRT	131	Automotive Refinishing I	4
ACRT	132	Automotive Refinishing II	3
ACRT	133	Automotive Refinishing III	4
ACRT	134	Automotive Refinishing IV	4
Total Credits			**15**

Mechanical Systems Certificate (081D)

ACRT	141	Steering & Suspension I	2
ACRT	142	Steering & Suspension II	3
ACRT	143	Mechanical Systems I	3
ACRT	144	Mechanical Systems II	4
Total Credits			**12**

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

The programs will provide a solid foundation for Automotive Collision Repair Technicians through the application of core knowledge and development of required skills. A graduate of the Automotive Collision Repair Technology program is prepared to work as a(n):

- Repair technician
- Insurance assessor
- Detailer
- Customer service manager
- Owner and manager for auto dealerships or their own collision repair business. The local and statewide job market for auto collision repair technicians is strong, which is indicated by an annual growth rate of 25 percent.

Aviation Maintenance Technology

Coordinator/Faculty: Robert Beckett, ext. 7361
email: robert.beckett@swic.edu
Faculty: Matthew Harter, Gregg Sweeten

Dean: Bradley Sparks

The Aviation Maintenance Technology program gives you the opportunity to obtain the FAA-Approved Airframe and/or Powerplant Certificate in one year and an Associate in Applied Science degree with an additional semester of classes. The FAA-approved certificate allows you to take the FAA written, oral and practical tests in the General, Airframe, and Powerplant courses. Upon successful completion of the FAA tests, the FAA will issue a FAA Airframe and/or Powerplant License.

This program offers a one-year or two-year format. The one-year format allows you to obtain the A&P Certificate (core courses) in 50 weeks (eight hours/day). The two-year format allows you to complete the A&P Certificate or Associate in Applied Science degree in two years (four hours/day). **See the program coordinator or an academic advisor for more information.**

Associate in Applied Science Degree (0009)

Core Courses			**Semester Credits**
AVMT	121	Instrument and Navigation Systems	3
AVMT	122	Fuel Systems, Inspection & Aircraft Rigging	3
AVMT	126	Aircraft Non-metallic Structures	3
AVMT	127	Aircraft Metallic Structures	3
AVMT	131	Aircraft Electrical Systems	3
AVMT	132	Charging Systems & Environmental Systems	3
AVMT	136	Aircraft Fluid Power Systems	3
AVMT	137	Landing Gear Systems	3
AVMT	140	Materials, Processes & Fabrication	3
AVMT	145	Basic Electricity & Technology	3
AVMT	150	Fundamentals & Operations	3
AVMT	155	Regulations & Science	3
AVMT	157	Turbine Engines	3
AVMT	158	Ignition and Starting Systems	3
AVMT	171	Aircraft Powerplant Systems & Components	3
AVMT	172	Aircraft Fuel Metering Systems	3
AVMT	176	Aircraft Propellers	3
AVMT	177	Aircraft Powerplant Systems	3
AVMT	186	Reciprocating Engine Overhaul	3
AVMT	187	Reciprocating Engine Maintenance	3
Total Program Credits			**60**

General Education Courses			
ENG	101	Rhetoric & Composition I	3
Human Well-Being Elective(s)			2
Communications Elective			3
Human Relations Elective			3
Humanities **AND/OR** Social Science Elective			3
General Education Elective			1
Total Credits			**15**

Airframe & Powerplant Certificate (009A)

AVMT	121	Instrument and Navigation Systems	3
AVMT	122	Fuel Systems, Inspection & Aircraft Rigging	3
AVMT	126	Aircraft Non-metallic Structures	3
AVMT	127	Aircraft Metallic Structures	3
AVMT	131	Aircraft Electrical Systems	3
AVMT	132	Charging Systems & Environmental Systems	3
AVMT	136	Aircraft Fluid Power Systems	3
AVMT	137	Landing Gear Systems	3
AVMT	140	Materials, Processes & Fabrication	3
AVMT	145	Basic Electricity & Technology	3
AVMT	150	Fundamentals & Operations	3
AVMT	155	Regulations & Science	3
AVMT	157	Turbine Engines	3
AVMT	158	Ignition and Starting Systems	3
AVMT	171	Aircraft Powerplant Systems & Components	3
AVMT	172	Aircraft Fuel Metering Systems	3
AVMT	176	Aircraft Propellers	3
AVMT	177	Aircraft Powerplant Systems	3
AVMT	186	Reciprocating Engine Overhaul	3
AVMT	187	Reciprocating Engine Maintenance	3
Total Credits			**60**

Airframe Certificate (009B)

AVMT	121	Instrument and Navigation Systems	3
AVMT	122	Fuel Systems, Inspection & Aircraft Rigging	3
AVMT	126	Aircraft Non-metallic Structures	3
AVMT	127	Aircraft Metallic Structures	3
AVMT	131	Aircraft Electrical Systems	3
AVMT	132	Charging Systems & Environmental Systems	3
AVMT	136	Aircraft Fluid Power Systems	3
AVMT	137	Landing Gear Systems	3
AVMT	140	Materials, Processes & Fabrication	3
AVMT	145	Basic Electricity & Technology	3
AVMT	150	Fundamentals & Operations	3
AVMT	155	Regulations & Science	3
Total Credits			**36**

Powerplant Certificate (009C)

AVMT	140	Materials, Processes & Fabrication	3
AVMT	145	Basic Electricity & Technology	3
AVMT	150	Fundamentals & Operations	3
AVMT	155	Regulations & Science	3
AVMT	157	Turbine Engines	3
AVMT	158	Ignition and Starting Systems	3
AVMT	171	Aircraft Powerplant Systems & Components	3
AVMT	172	Aircraft Fuel Metering Systems	3
AVMT	176	Aircraft Propellers	3
AVMT	177	Aircraft Powerplant Systems	3
AVMT	186	Reciprocating Engine Overhaul	3
AVMT	187	Reciprocating Engine Maintenance	3
Total Credits			**36**

Students must earn a grade of C or better in all AVMT courses to meet degree and certificate requirements.

Test Prep Courses
Although these courses do not count toward the AVMT Associate in Applied Science degree or one of the certificates, individuals with sufficient aviation industry experience to obtain a sign-off from the FAA to take the written examination for the Aircraft Mechanic Airframe or Powerplant certificate may find them beneficial as they prepare for the exams.

AVMT	106	FAA Test Prep – Airframe	4
AVMT	107	FAA Test Prep – General	4
AVMT	108	FAA Test Prep – Powerplant	4

Avionics Courses
These courses are not part of the FAA-approved Airframe and Powerplant certificates, but are sometimes beneficial to those working in aviation fields.

AVE	131	Intro to Avionics Installation	3
AVE	141	Avionics Installation Trends	3

Other courses that may be of interest to AVMT students are: EET 260 and EET 264.

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

The FAA license is necessary for the student to pursue career opportunities as a(n):

- Powerplant mechanic
- Airframe mechanic
- Combination airframe & powerplant mechanic (A&P mechanic)

Aviation Management

Coordinator/Faculty: Keith Mueller, ext. 5683
email: keith.mueller@swic.edu

Dean: Bradley Sparks

SWIC offers an Associate of Applied Science degree in Aviation Management with an optional FAA Certified Aircraft Dispatcher Certificate (pending FAA approval). Successful graduates who complete the program have the opportunity to go into a wide variety of aviation-related careers and support roles including logistics, flight operations support, manufacturing and maintenance coordinator. In addition to the previously mentioned career paths, the following are also included: aircraft dispatcher (Aircraft Dispatcher Option), airline systems operations control management, maintenance management, product representatives and corporate and airline support roles. The Aircraft Dispatcher FAA Certification can be accomplished as part of the Associate in Applied Science Aviation Management degree or as a separate certificate program. Students completing the dispatcher program must complete an FAA knowledge exam along with a practical exam with the FAA or designated dispatcher examiner. Additional fees are required for testing.

Aviation is a global industry and continues to expand to meet the requirements of national defense as well as increased domestic and international passenger travel. The Federal Aviation Administration forecasts that domestic and international travel will increase approximately 30 percent to 1 billion passengers carried annually by U.S. airlines by the year 2025 along with the increased demand for shipment of air cargo.

Graduates of the Aviation Management program have the opportunity to enter the Bachelor of Science degree in Aviation Management at Southern Illinois University Carbondale. Students have the opportunity to enroll at the SIUC campus or at the SWIC Belleville Campus on a weekend format.

Contact the program coordinator or an academic advisor for additional information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0008)

First Year

Fall Semester			**Semester Credits**
AVIA	101	Private Pilot Flight Theory**	3
AVIA	108	Aviation History	3
AVIA	122	Aircraft Systems and Components	2
AVIA	260	Aviation Meteorology**	3
ENG	101	Rhetoric & Composition I	3
AVIA	133	Human Factors in Aviation	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
AVIA	131	Air Traffic Control Systems**	3
AVIA	141	Federal Aviation Regulations**	3
AVIA	160	Aviation Management I	3
ENG	103	Technical Communication Writing **OR** Communications Elective	3
MGMT	213	Human Relations in the Workplace **OR**	
AVIA	201	Instrument Flight Theory**	3
Human Well-Being Elective			2
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
AVIA	105	Introduction to Civil Aviation **OR**	
AVIA	240	Aircraft Dispatcher Practical I**	3
AVIA	261	Aviation Management II	3
BUS	215	Business Law I **OR**	
AVIA	241	Aircraft Dispatcher Practical II**	3
AVIA	264	Mgmt of Aircraft Maintenance	3
Math*			4
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
AVIA	266	Airport Planning and Management	3
AVIA	280	Internship	3
Human Relations Elective			3
PSYC	151	General Psychology	3
MGMT	217	Human Resource Management OR	
MGMT	213	Human Relations in the Workplace	3
Total Semester Credits			**15**

Total Program Credits	**65**

*GT 105 or Math 112 – Please check for transferability.
**Required for the Aircraft Dispatcher Option

Aircraft Dispatcher Certificate (008A)

First Semester			Semester Credits
AVIA	101	Private Pilot Flight Theory	3
AVIA	260	Aviation Meteorology	3

Second Semester			Semester Credits
AVIA	131	Air Traffic Control Systems*	3
AVIA	141	Federal Aviation Regulations*	3
AVIA	201	Instrument Flight Theory	3

Third Semester			Semester Credits
AVIA	240	Aircraft Dispatcher Practical I	3
AVIA	241	Aircraft Dispatcher Practical II	3

Total Credits	**21**

Program can be entered in the Fall or Spring Semester.

*Courses can also be accomplished in first semester.

Aviation Pilot Training

Coordinator/Faculty: Keith Mueller, ext. 5683
email: keith.mueller@swic.edu

Dean: Bradley Sparks

SWIC offers a Federal Aviation Regulation-Approved Part 141, two-year curriculum leading to an Associate in Applied Science degree in Aviation Pilot Training. The successful graduate holds a commercial pilot certificate with single-engine, multi-engine and instrument ratings. An optional flight instructor certificate is also available. The successful graduate should qualify to enter Southern Illinois University (Capstone program) bachelor's degree program in Aviation Management.

A one-year aviation certificate program is also offered. This program is designed to provide the minimum Federal Aviation Administration pilot certificates and ratings for a student to obtain an entry-level position in commercial aviation.

Students should check the class schedules for times and locations, and check with the coordinator for current flight course fees.

Individual classes and simulator courses are available for each FAA flight rating on a space available basis.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0012)

First Year

Fall Semester			**Semester Credits**
AVIA	101	Private Pilot Flight Theory	3
AVIA	102	Flight Training Private Part I	2
AVIA	103	Simulator Private	1
AVIA	260	Aviation Meteorology	3
ENG	101	Rhetoric & Composition I	3
AVIA	122	Aircraft Systems and Components	2
Total Semester Credits			**14**

Spring Semester			**Semester Credits**
AVIA	104	Flight Training Private Part II	3
AVIA	201	Instrument Flight Theory	3
ENG	103	Technical Communication **OR** Communication Elective	3
AVIA	153	Simulator Intermediate	1
AVIA	131	Air Traffic Control Systems	3
GT	105	Tech Math **OR** Math 112	4
Total Semester Credits			**17**

Summer Semester			**Semester Credits**
AVIA	202	Flight Training Instrument	3
AVIA	203	Simulator Instrument	1
AVIA	151	Commercial Pilot Flight Theory	3
Total Semester Credits			**7**

Second Year

Fall Semester			**Semester Credits**
Humanities **OR** Social Science Elective			3
AVIA	154	Flight Training Commercial Part I	3
AVIA	133	Human Factors in Aviation	3
AVIA	Electives		6
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
AVIA	155	Flight Training Commercial II	2
AVIA	269	Multi-Engine Flight Theory	1
AVIA	270	Flight Training Multi-Engine	1
AVIA	Elective		4
Human Well-Being Elective			2
Human Relations Elective			3
Total Semester Credits			**13**

Total Program Credits	**66**

ALL FEDERAL AND STATE VETERAN STUDENTS SHOULD CONSULT WITH THE SWIC VETERANS SERVICES OFFICE BEFORE ENROLLING IN ANY AVIATION COURSES.

Certificate Programs

Aviation Pilot Training Certificate (012A)

Fall Semester			Semester Credits
AVIA	101	Private Pilot Flight Theory	3
AVIA	102	Flight Training Private Part I	2
AVIA	103	Simulator Private	1
AVIA	104	Flight Training Private Part II	3
AVIA	260	Aviation Meteorology	3
Total Credits			**12**

Spring Semester			Semester Credits
AVIA	133	Human Factors in Aviation	3
AVIA	151	Commercial Pilot Flight Theory	3
AVIA	153	Simulator Intermediate	1
AVIA	154	Flight Training Commercial I	3
AVIA	201	Instrument Flight Theory	3
AVIA	269	Multi-Engine Flight Theory	1
Total Credits			**14**

Summer Semester			Semester Credits
AVIA	155	Flight Training Commercial II	2
AVIA	202	Flight Training Instrument	3
AVIA	203	Simulator Instrument	1
AVIA	270	Flight Training Multi-Engine	1
Total Credits			**7**

Total Semester Credits	**33**

Private Pilot Certificate (012F)

An individual certificate is available for Private Pilot. A certificate will be issued upon completion of:

AVIA	101	Private Pilot Flight Theory	3
AVIA	102	Flight Training Private Part I	2
AVIA	103	Simulator Private	1
AVIA	104	Flight Training Private Part II	3
AVIA	260	Aviation Meteorology	3
Total Credits			**12**

Notice:
Check class schedule for aviation fees in effect at the time of your registration.

Flight courses AVIA 102, 104, 154, 155, 202, 252, 254, 255, 270 and 292 are not taught by SWIC, but are available for course credit for the AAS degree. Flight courses are offered by area training facilities.

Additional Simulator Courses:
AVIA 205 Garmin GNS 430 VFR Operations
AVIA 207 Garmin G 1000 System Training
AVIA 208 Simulator-Garmin GNS 1000 VFR
AVIA 209 Simulator-Garmin GNS 1000 IFR
AVIA 213 Instrument Training-Part I
AVIA 216 Advanced Instrument Approaches
AVIA 217 Instrument Departures and Arrivals
AVIA 220 Instrument Currency and Review

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Aviation Pilot Training program is prepared to work as a(n):

- Airplane pilot, commercial
- Airplane pilot, private
- Corporate pilot
- Flight instructor
- Agricultural pilot
- Aerial mapping

Commercial Maintenance Mechanics

Coordinator: Mark Bosworth, ext. 7457
email: mark.bosworth@swic.edu

Faculty: Lou Marino

Dean: Bradley Sparks

The Commercial Maintenance Mechanics program at SWIC prepares students with the skills and experience necessary to enter the workforce as entry-level technicians in a commercial facility. Students will learn multiple disciplines which include machining, pipefitting, construction, HVAR and electricity. Commercial maintenance mechanics maintain and repair a variety of equipment used in many different facilities such as hospitals, hotels, office buildings, schools and commercial businesses. Because commercial facilities cannot hire specialists for each trade, commercial maintenance technicians are hired to keep the facilities running.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (053K)

Program Requisite			Semester Credits
PMT	100	Precision Machining Introduction	.5

First Year

Fall Semester			Semester Credits
PMT	101	Intro to the Machine Trades	4
EET	101	Intro to Electricity/Electronics	5
IML	120	Mechanical Blueprint Reading I	3
GT	104	Math for Electronics	4
HES	151	Personal Health and Wellness	2
Total Semester Credits			**18.5**

Spring Semester			Semester Credits
EET	200	Digital Electronic Circuits I	3
HVAR	100	Fitting, Fusion and Fabrication	4
HVAR	103	Basic Electrical Controls & Systems	4
ENG	101	Rhetoric & Composition I	3
Social Science Course			3
Total Semester Credits			**17**

Summer Semester			
EET	243	NEC for Industrial/Commercial	3

Second Year

Fall Semester			Semester Credits
HVAR	101	Refrig. & A.C. Principles I	4
HVAR	202	Commercial Refrigeration I	4
IDP	116	Industrial Pipefitter A	4
Communication Course			3
Total Semester Credits			**15**

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Spring Semester			Semester Credits
IDP	126	Industrial Pipefitter B	4
HVAR	153	Heating Fundamentals	4
HVAR	205	Commercial Icemakers and Water Treatment	3
EET	235	Programmable Logic Controllers	3
Human Relations Course			3
Total Semester Credits			**17**

Total Program Credits **70.5**

Commercial Maintenance Mechanics Certificate (054K)

EET	101	Intro to Electricity and Electronics	5
EET	200	Digital Electronic Circuits I	3
EET	243	NEC for Industrial/Commercial	3
EET	235	Programmable Logic Controllers	3
HVAR	100	Fitting, Fusion and Fabrication	4
HVAR	101	Refrig. & A.C. Principles I	4
HVAR	103	Basic Electrical Controls & Systems	4
HVAR	153	Heating Fundamentals	4
HVAR	202	Commercial Refrigeration I	4
HVAR	205	Commercial Icemakers & Water Treatment	3
IDP	116	Industrial Pipefitter A	4
GT	104	Math for Electronics	4
Total Credits			**45**

Career Opportunities

Graduates of the Commercial Maintenance Mechanics program will have many opportunities with a wide variety of companies. A graduate of the Commercial Maintenance Mechanics program is prepared to work as a:

- Plant maintenance mechanic
- Heating, air conditioning and refrigeration technician
- Facilities maintenance technician

Computer Aided Drafting

Coordinator/Faculty: Shauna Scribner, Ph.D., ext. 5376
email: shauna.scribner@swic.edu

Dean: Bradley Sparks

The Computer Aided Drafting program develops the skills that will prepare students for employment as drafters. The houses we live in, the buildings we work in, the cars we drive, and the roads we drive on, all started as concepts or ideas. The role of the computer-aided drafter is to communicate by way of pictorial drawings the concepts of engineers and architects.

The CAD program is curriculum certified through the American Design Drafting Association International. This certification provides recognition in the areas of design drafting and signifies to employers that the SWIC CAD program meets the standards established and approved by an international organization for designers, drafters, architects, illustrators, and technical artists.

Students who wish to complete the Architecture or Machine specializations are required to complete the Certified Drafter Mechanical/Architectural exam in their specific specialization. The Architecture Specialization exam should be taken during the last semester of the two-year program. The Machine Specialization (Mechanical) exam can be taken after completing the first four drafting courses in the program (CAD 120 Introductory CAD, CAD 101 Basic Drafting, CAD 102 Intermediate Drafting and CAD 200 Assembly Drawings).

Professional certification through ADDA allows drafters to show their knowledge of drafting concepts and nationally recognized standards and practices. Becoming a certified drafter enhances credibility as a professional and gives a competitive edge in the workforce. ADDA membership is not required in order to take the exam or to become a certified drafter. For more information about ADDA, visit www.adda.org.

The CAD program offers a specialization in General CAD, Architecture **OR** Machine areas. After completing the first year of requirements, the student may select to specialize in one of the three areas. Under each specialization area is listed the courses required to complete the degree.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0035)

First Year

Fall Semester			**Semester Credits**
CAD	120	Introductory CAD	4
CAD	101	Basic Drafting	4
ENG	101	Rhetoric & Composition I	3
MATH	112	College Algebra	4
Total Semester Credits			**15**

Spring Semester			**Semester Credits**
CAD	102	Intermediate Drafting	4
CAD	220	Advanced CAD I	3
CAD	221	Advanced CAD II	4
Humanities **OR** Social Science Elective			3
SPCH	151	Fundamentals of Public Speaking **OR**	3
SPCH	155	Interpersonal Communication	
Total Semester Credits			**17**

Summer Semester			**Semester Credits**
CAD	290	Supervised Internship I*	3
Human Well-Being Course			2
Total Semester Credits			**5**

Second Year

Fall Semester			**Semester Credits**
CAD		General, Architecture **OR** Machine Specialization	16-18
Total Semester Credits			**16-18**

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Spring Semester			**Semester Credits**
CAD		General, Architecture **OR** Machine Specialization	13
Human Relations Course			3
Total Semester Credits			**16**

Total Program Credits	**69**

*Students who wish to enroll in a Supervised Internship class in the fall should enroll in CAD 290, students who wish to enroll in a Supervised Internship class in the spring should enroll in CAD 291 Supervised Internship II, and students who wish to enroll in a Supervised Internship class in the summer should enroll in CAD 292 Supervised Internship III.

Computer Aided Drafting Specializations****

General

CAD	200	Manufacturing Processes & CAD Drawings (Required)	4
CAD	201	Introduction to Architectural Drafting (Required)	2
CAD	202	Structures Drafting (Required)	3
CAD	203	Civ Eng Drafting (Required)	3
CAD	204	Manufacturing Drafting (Required)	3
CAD	206	E & I Drafting (Required)	3
CAD	208	Pipe Drafting (Required)	3
CAD	210	HVAC/EL/Plumb Drafting (Required)	3
CAD	222	Machine CAD Post Assessment (Required)	1
CAD	225	MicroStation CAD (Required)	3
CAD	226	Intro to Geo Dim & Tolerance (GD&T)(Required)	2
CAD	230	3D Architectural CAD (Required)	2
CAD	231	Arch CAD Post Assessment (Required)	1
CAD	290	Supervised Internship I (Offered Fall)	1-6
CAD	291	Supervised Internship II (Offered Spring)	1-6
CAD	292	Supervised Internship III (Offered Summer)	1-6
MATH	114	Trigonometry	3

Architecture

CAD	201	Introduction to Architectural Drafting (Required)	2
CAD	202	Structures Drafting (Required)	3
CAD	203	Civ Eng Drafting (Required)	3
CAD	210	HVAC/EL/Plumb Drafting (Required)	3
CAD	225	MicroStation CAD (Required)	3
CAD	230	3D Architectural CAD (Required)	2
CAD	231	Arch CAD Post Assessment (Required)	1
CAD	290	Supervised Internship I (Offered Fall)	1-6
CAD	291	Supervised Internship II (Offered Spring)	1-6
CAD	292	Supervised Internship III (Offered Summer)	1-6
CMT	102	Construction Blueprints & Specifications	3
CMT	103	Construction Materials & Methods I	3
CMT	152	Construction Materials & Methods II	3
ENGR	251	Surveying	4
MATH	114	Trigonometry	3

Twenty-seven semester credits of CAD specialization courses must be completed for the Architecture CAD degree. Only two CAD Supervised Internship courses may be taken to fulfill specialization requirements.

Machine

CAD	200	Manufacturing Processes & CAD Drawings (Required)	4
CAD	204	Manufacturing Drafting (Required)	3
CAD	206	E & I Drafting (Required)	3
CAD	208	Pipe Drafting (Required)	3
CAD	221	Advanced CAD II (Required)	4
CAD	222	Machine CAD Post Assessment (Required)	1
CAD	225	MicroStation CAD (Required)	3
CAD	226	Intro to Geo Dim & Tolerance (GD&T)(Required)	2
CAD	290	Supervised Internship I (Offered Fall)	1-6
CAD	291	Supervised Internship II (Offered Spring)	1-6
CAD	292	Supervised Internship III (Offered Summer)	1-6
EET	101	Intro to Electricity and Electronics	5
EET	200	Digital Electronic Circuits	3
EET	231	Introduction to Robotics	4
EET	232	Instrumentation Fundamentals	4
EET	243	NEC for Industrial/Commercial	3
IML	120	Mechanical Blueprint Reading I	3
IML	121	Mechanical Blueprint Reading II	4
MATH	114	Trigonometry	3
PMT	100	Precision Machining Introduction	.5
PMT	101	Intro to the Machine Trades	4
PMT	102	Intermediate Machining	4
PMT	111	CNC Milling	4
PMT	112	CNC Turning	3
PMT	114	Metallurgy I (Industrial)	2
PMT	221	Intro to Mastercam	4
PMT	231	Intro to SolidWorks	4
PMT	232	Advanced SolidWorks	4
WLDT	101	Introduction to Welding	6
WLDT	106	Weld Fabrication Blueprint Reading	3
WLDT	107	Advanced Blueprint Reading	2

Twenty-seven semester credits of CAD specialization courses must be completed for the Machine CAD degree. Only two CAD Supervised Internship courses may be taken to fulfill specialization requirements.

Certificate (035D)

CAD	120	Introductory CAD	4
CAD	101	Basic Drafting	4
CAD	102	Intermediate Drafting	4
CAD	200	Manufacturing Processes & CAD Drawings **OR**	4
CAD	201	Introduction to Architectural Drafting	2
CAD	220	Advanced CAD I	3
CAD	221	Advanced CAD II	4
CAD	225	MicroStation CAD	3
MATH	112	College Algebra	4
CAD	230	3D Architectural CAD	2
General CAD, Architecture **OR** Machine Specialization			7-8
Total Credits			**37-38**

*Students who wish to enroll in a Supervised Internship class in the fall should enroll in CAD 290, students who wish to enroll in a Supervised Internship class in the spring should enroll in CAD 291 Supervised Internship II, and students who wish to enroll in a Supervised Internship class in the summer should enroll in CAD 292 Supervised Internship III.

Career Opportunities

More than 90 percent of the SWIC Computer Aided Drafting graduates find drafting technology jobs with career opportunities such as:

- Junior drafter (entry-level position)
- Drafting technician (education and experience)
- Design drafter (advanced education and experiences)

SWIC graduates pursue a range of drafting fields from manufacturing, to civil, to electrical and instrumentation, to pipe, to structural drafting.

SWIC graduates are employed by companies such as Anheuser-Busch InBev, Monsanto, Sverdrup Corp., IDOT and Ameren.

Computer Information Systems

For more computer classes, see:
Graphic Communications
Network Design & Administration
Office Administration & Technology
Web Designer
Web Development & Administration

Coordinator/Faculty: Tim Brown, ext. 5502
Faculty: Lawrence Appelbaum, Charles Hannon, Mary Lutz, Matt Swinford

Dean: Janet Fontenot

The Computer Information Systems program offers an Associate in Applied Science degree for computer specialists and for application programmers. The program provides the technical skills and knowledge required for the effective utilization of computers in the business environment. The program also offers three Computer Information Systems options and several Computer Information Systems certificates.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degrees

Computer Information Systems (0010)

First Year

Fall Semester			**Semester Credits**
MATH	107	General Education Statistics (or higher)	4
CIS	180	Introduction to Programming	3
CIS	181	Operating System/Windows	3
CIS	185	Introduction to Information Technology	3
ENG	101	Rhetoric & Composition I	3
Human Well-Being Elective			2
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
CIS	164	Internet Essentials	3
CIS	174	HTML	3
CIS	184	Visual Basic Programming I	3
OAT	175	Electronic Spreadsheet	3
NETW	101	Introduction to Networking	3
SPCH	155	Interpersonal Communications **OR**	3
SPCH	151	Fundamentals of Public Speaking	
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
EET	256	Preparation for A+ Certification	3
CIS	195	Introduction to Databases	3
CIS	246	Systems Development & Design I	3
CIS	252	C# Programming I	3
OAT	185	Database Applications	3
CIS Approved Electives			3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
ECON	201	Principles of Economics I (Macro)	3
CIS	275	SQL	3
CIS	297	Information Technology Internship	3
CIS Approved Electives			3
Humanities or Social Science Elective			3
Total Semester Credits			**15**

Total Program Credits **69**

CIS Electives (0010)

			Semester Credits
CIS	165	Game Programming I	3
CIS	177	JavaScript Programming I	3
CIS	179	Computer User Support	3
CIS	187	Java Programming I	3
CIS	212	Introduction to XML	3
CIS	241	Visual Basic for Applications	3
CIS	250	C++ Programming I	3
CIS	256	Web Site Development	3
CIS	260	C++ Programming II	3
CIS	262	C# Programming II	3
CIS	263	Data Access	3
CIS	264	ASP	3
CIS	265	Windows Mobile Development	3
CIS	266	Database Design	3
CIS	274	Android Mobile Development	3
CIS	277	jQuery	3
CIS	284	Visual Basic Programming II	3
CIS	287	Java Programming II	3
CIS	288	JSP	3

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Computer Information Systems (0010) by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Career Opportunities

A graduate of the Computer Information Systems program is prepared to work as a(n):

- Programmer
- Applications programmer
- Customer support specialist
- Software specialist
- Information specialist
- Software developer

CIS Tech Support/Help Desk (010A)

The Computer Information Systems – Tech Support/Help Desk program will meet the demand for information technology professionals trained to support desktop computer users. Students completing the program will be qualified to troubleshoot hardware and software problems in the work environment. Graduates will be expected to have the skills needed to support users on all major applications. A basic understanding of the Internet and of a networked environment will enable graduates to aid in conflict management and effective user training. The skills gained in the program should allow graduates to adapt to any environment.

First Year

Fall Semester			**Semester Credits**
MATH	107	General Education Statistics (or higher)	4
CIS	178	Operating System Fundamentals	3
CIS	181	Operating System/Windows	3
CIS	185	Introduction to Information Technology	3
ENG	101	Rhetoric & Composition I	3
Human Well-Being Elective			2
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
CIS	164	Internet Essentials	3
CIS	179	Computer User Support	3
NETW	101	Introduction to Networking	3
OAT	175	Electronic Spreadsheet	3
OAT	180	Word Processing	3
SPCH	155	Interpersonal Communication	3
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
NETW	271	Network Security	3
CIS	246	Systems Development & Design I	3
OAT	128	Microsoft Outlook	1
OAT	165	Presentation Graphics	2
OAT	185	Database Applications	3
EET	256	Preparation for A+ Certification	3
CIS Approved Electives			3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
ECON	201	Principles of Economics I (Macro)	3
NETW	188	Windows Server I	3
CIS	297	Information Technology Internship	3
CIS Approved Electives			3
Humanities or Social Science Elective			3
Total Semester Credits			**15**

Total Program Credits **69**

CIS Electives (010A)			**Semester Credits**
CIS	148	Document Management	1
CIS	165	Game Programming I	3
CIS	174	HTML	3
CIS	180	Introduction to Programming	3
CIS	195	Introduction to Databases	3
CIS	212	Introduction to XML	3
CIS	275	SQL	3
SPCH	151	Fundamentals of Public Speaking	3
MGMT	213	Human Relations in the Workplace	3
NETW	105	Data Assurance	1
NETW	182	Linux Operating System	3

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in CIS Tech Support/Help Desk (010A) by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Tech Support/Help Desk program is prepared to work as a(n):

- Help desk coordinator
- Help desk analyst
- Help desk customer support representative
- Help desk technician
- Help desk specialist

Database Development & Management (010B)

The Computer Information Systems – Database Development & Management program offers an Associate in Applied Science degree to prepare students to be database developers and managers.

Application database developers perform tasks that involve construction, documentation, installation or maintenance of database systems. Database managers work with database management systems software and determine ways to organize and store data. They also set up computer databases and test and coordinate changes to them.

First Year

Fall Semester			**Semester Credits**
CIS	125	Operating System Basics	1
CIS	180	Introduction to Programming	3
CIS	185	Introduction to Information Technology	3
CIS	195	Introduction to Databases	3
ENG	101	Rhetoric & Composition I	3
OAT	185	Database Applications	3
Total Semester Credits			**16**

Spring Semester			**Semester credits**
CIS	184	Visual Basic Programming I	3
CIS	246	Systems Development & Design I	3
CIS	275	SQL	3
MATH	107	General Education Statistics (or higher)	4
SPCH	151	Fundamentals of Public Speaking	3
Human Well-Being Elective			2
Total Semester Credits			**18**

Second Year

Fall semester			**Semester Credits**
CIS	252	C# Programming I	3
CIS	281	Database Programming	3
CIS	283	Database Administration	3
ECON	201	Principles of Economics I (Macro)	3
Humanities or Social Science Elective			3
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
CIS	263	Data Access	3
CIS	282	Database Application Development	3
CIS	297	Information Technology Internship	3
CIS Approved Electives			6
Total Semester Credits			**15**

Total Program Credits			**64**

CIS Electives (010B)			**Semester Credits**
CIS	174	HTML	3
CIS	187	Java Programming I	3
CIS	212	Introduction to XML	3
CIS	241	Visual Basic for Applications	3
CIS	250	C++ Programming I	3
CIS	260	C++ Programming II	3
CIS	262	C# Programming II	3
CIS	264	ASP	3
CIS	266	Database Design	3
CIS	284	Visual Basic Programming II	3
CIS	287	Java Programming II	3
CIS	288	JSP	3
NETW	101	Introduction to Networking	3

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Database Development & Management (010B) by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Career Opportunities

A graduate of the Database Development & Management program is prepared to work as a(n):

- Database analyst
- Database developer
- Database Web developer
- Database programmer

Software Development (010C)

The Computer Information Systems Software Development degree provides students with the technical skills and knowledge to handle object-oriented programming requirements in support of the business community. Successful students will use various software development tools to develop platform independent applications written in one or more object-oriented programming languages. Students will develop data-driven software applications that query and manipulate data in a relational database management system. Before completing the degree, students will develop browser-enabled applications using client and server-side programming languages and technologies.

First Year

Fall Semester			**Semester Credits**
MATH	112	College Algebra or higher	4
CIS	125	Operating System Basics	1
CIS	180	Introduction to Programming	3
CIS	185	Introduction to Information Technology	3
CIS	195	Introduction to Databases	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
CIS	174	HTML	3
CIS	184	Visual Basic Programming I	3
CIS	246	Systems Development & Design I	3
ECON	201	Principles of Economics I (Macro)	3
SPCH	151	Fundamentals of Public Speaking	3
Human Well-Being Elective			2
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
CIS	252	C# Programming I	3
CIS	275	SQL	3
CIS Approved Electives			6
Humanities or Social Science Elective			3
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
CIS	262	C# Programming II	3
CIS	263	Data Access	3
CIS	264	ASP	3
CIS Approved Electives			3
CIS	297	Information Technology Internship	3
Total Semester Credits			**15**

Total Program Credits **64**

CIS Electives (010C)			**Semester Credits**
CIS	165	Game Programming I	3
CIS	177	JavaScript Programming I	3
CIS	187	Java Programming I	3
CIS	212	Introduction to XML	3
CIS	241	Visual Basic for Applications	3
CIS	250	C++ Programming I	3
CIS	256	Web Site Development	3
CIS	260	C++ Programming II	3
CIS	265	Windows Mobile Development	3
CIS	274	Android Mobile Development	3
CIS	277	jQuery	3
CIS	281	Database Programming	3
CIS	282	Database Application Development	3
CIS	284	Visual Basic Programming II	3
CIS	287	Java Programming II	3
CIS	288	JSP	3

Requisites may be required for some courses. Refer to the Course Description Guide beginning on page 246.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in CIS-Software Development (010C) by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Career Opportunities

A graduate of the Software Development program is prepared to work as a(n):

- Software developer
- Computer programmer
- Computer specialist
- Programmer analyst

Computer Management Information Systems (0116)

The Computer Management Information Systems degree is an Associate in Applied Science degree that provides students with two paths. The degree is designed to prepare students for entry into the job market as computer specialists or entry-level software developers while providing students with the requisite knowledge for transfer to a senior institution. Upon completion of the degree, students may seek employment and/or apply for a seamless transition to a senior institution.

Program Requisite			**Semester Credits**
CIS	180	Introduction to Programming	3

Must be taken before taking a programming course

First Year

Fall Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
SPCH	151	Fundamentals of Public Speaking	3
PHIL	151	Introductory Logic	3
CIS	185	Introduction to Information Technology	3
HIST	250	20th Century Western Civilization	3
IAI Literature			3
Total Semester Credits			**18**

Spring Semester			**Semester credits**
CIS	184	Visual Basic Programming I	3
MATH	213	Calculus for Business & Social Science	4
ECON	201	Principles of Economics I (Macro)	3
IAI Lab Science (Physical Sciences)			4
ENG	102	Rhetoric & Composition II	3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
CIS	250	C++ Programming I	3
ECON	202	Principles of Economics I (Micro)	3
IAI Lab Science (Life Science)			4
BUS	205	Economic and Business Statistics	4
CIS	246	Systems Development & Design I	3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
ACCT	110	Financial Accounting	4
CIS	187	Java Programming I	3
CIS	252	C# Programming I	3
Human Well-Being Elective			2
POL	150	Introduction to American Government	3
IAI Fine Arts			3
Total Semester Credits			**18**

Total Program Credits **70**

Enrollment in any math class is based on your score on the assessment placement test and proper requisite. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Computer Management Information Systems program is prepared for advanced study or employment in the information technology profession. The courses in the degree will apply toward the first two years of a baccalaureate degree at some four-year institutions. The Associate in Applied Science degree program prepares students for work as a:

- Software developer
- Computer programmer
- Software engineer
- Computer specialist
- Computer support specialist

Certificate Programs

Database Programming (010D)

Approximately 20 percent of all new information technology positions will require database development skills. The Database Programming Certificate will provide the skills required for database development.

OAT	185	Database Applications	3
CIS	195	Introduction to Databases	3
CIS	241	Visual Basic for Applications	3
CIS	275	SQL	3
CIS	281	Database Programming	3
CIS	282	Database Application Development	3
CIS	283	Database Administration	3
Total Credits			**21**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

C++ Programming (010E)

The C++ Programming Certificate will prepare students for employment as C++ programmers.

CIS	250	C++ Programming I	3
CIS	260	C++ Programming II	3
Total Credits			**6**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Visual Basic Programming (010F)

The Visual Basic Programming Certificate will prepare students for employment as Visual Basic programmers.

CIS	184	Visual Basic Programming I	3
CIS	284	Visual Basic Programming II	3
Total Credits			**6**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

C# Programming (010J)

The C# Programming Certificate will prepare students for employment as C# programmers.

CIS	252	C# Programming I	3
CIS	262	C# Programming II	3
Total Credits			**6**

Java Programming (011F)

The Java Programming Certificate will prepare students for employment as Java programmers.

CIS	187	Java Programming I	3
CIS	287	Java Programming I	3
Total Credits			**6**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Construction Apprenticeship Training Programs

Apprenticeship Coordinator: Jim Moore, ext. 7458
email: jim.moore@swic.edu

Dean: Bradley Sparks

Students seeking admission to an apprenticeship program must meet the admission requirements of the trade union of choice, Office of Apprenticeship, U.S. Department of Labor, and SWIC. For further information concerning apprentice training, contact Jim Moore, director of Apprenticeship Training, SWIC.

Construction has revolutionized the way tasks are performed. Skilled craftsmen are needed at all levels, from construction development through maintenance. Furthermore, the nature of today's equipment and processes requires more than a casual acquaintance with these fields.

Employers value the balanced treatment of topics included in SWIC construction programs. They know that a graduate can function well in the real-world setting, develop required additional skills, and handle the lifelong learning required of today's construction trades.

Seven areas of concentration are built around the construction technology core courses. In each area, the student can earn a Certificate(s) of Proficiency or Associate in Applied Science degree. After graduation, a student will be qualified for employment in one or more of the following areas: the development, manufacture, installation, repair, maintenance, and management within the construction trades.

In addition, a student can earn a bachelor's degree by transferring to a college, which accepts the Associate in Applied Science degree and offers the Bachelor of Science in technology.

*All students entering any of the **degree** programs **must** complete the SWIC Placement Test **before** enrolling in any construction technology.* ***Students shall meet all institutional requirements for the Associate in Applied Science degree.***

Candidates for graduation must fulfill the degree requirements of the AAS degree listed at the beginning of the blue pages. NOTE: For those students who have not been admitted to the electrical apprenticeship program and who would like to pursue training in the electrical and electronics field, please see the *Electrical/Electronics Technology* section of this catalog (page 161).

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Construction Bricklayer Associate in Applied Science Degree (039C) and Bricklayer Apprentice Certificate (040C)

First Year

Fall Semester			**Semester Credits**
BLA	118	Construction Bricklayer Apprentice I*	4
BLA	128	Construction Bricklayer Apprentice II*	4
CMT	102	Construction Blueprints & Specifications	3
CMT	103	Construction Materials & Methods I	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
BLA	138	Construction Bricklayer Apprentice III*	4
BLA	148	Construction Bricklayer Apprentice IV*	4
CMT	244	Occupational Safety & Health I	3
CMT	152	Construction Materials & Methods II	3
CMT	153	Construction Estimating – Cost Accounting	3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
BLA	258	Construction Bricklayer Apprentice V*	4
BLA	268	Construction Bricklayer Apprentice VI*	4
MGMT	221	Fundamentals of Labor Relations	3
Communications Course			3
Humanities **OR** Social Science Course			3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
CIS	120	Introduction to PC	1
CIS	125	Operating System Basics	1
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
CMT	257	Construction Planning & Scheduling	3
Technical Elective**			3
Human Relations Course			3
Total Semester Credits			**13**
Total Program Credits			**64**

*A Bricklayer Apprentice Certificate will be given after the completion of the six courses marked with asterisks.

**Any course with a CAD, CMT, EET, HVAR, IDP, IML, PMT, or WLDT prefix.

Construction Carpentry Associate in Applied Science Degree (039G) and Carpentry Apprenticeship Certificate (040G)

First Year

Fall Semester			**Semester Credits**
CCA	116	Health & Safety I*	2
CCA	117	Shop Orientation*	2
CCA	118	Concrete Formwork I*	2
CCA	119	Concrete Formwork II*	2
MGMT	221	Fundamentals of Labor Relations	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**14**

Spring Semester			**Semester Credits**
CCA	126	Residential Framing I*	2
CCA	127	Residential Framing II*	2
CCA	128	Interior Systems Framing I*	2
CCA	129	Interior Systems Framing II	2
CCA	165	Construction Carpentry Internship I	4
CMT	244	Occupational Safety & Health I	3
Total Semester Credits			**15**

Second Year

Fall Semester			**Semester Credits**
CCA	236	Millwright Basics I*	2
CCA	237	Millwright Basics II*	2
CCA	238	Carpentry Welding Basics I*	2
CCA	239	Carpentry Welding Basics II*	2
CCA	270	Construction Carpentry Internship II	4
Communications Course			3
Humanities **OR** Social Science Course			3
Total Semester Credits			**18**

Apply for Graduation Now

Spring Semester			**Semester Credits**
CCA	246	Safety Orientation I*	2
CCA	247	Safety Orientation II*	2
CCA	248	Interior/Exterior Trim*	2
CCA	249	Intermediate Prints*	2
CCA	290	Construction Carpentry Internship III	4
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
Human Relations Course			3
Total Semester Credits			**17**
Total Program Credits			**64**

*A Carpentry Apprentice Certificate will be given after the completion of the eight courses marked with asterisks.

Construction Cement Mason Associate in Applied Science Degree (039A) and Construction Cement Mason Certificate (040A)

First Year

Fall Semester			**Semester Credits**
CMA	113	Construction Cement Mason Apprentice I*	4
CMT	244	Occupational Safety & Health I	3
CMT	102	Construction Blueprints & Specifica	3
CMT	103	Construction Materials & Methods I	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
CMA	123	Construction Cement Mason Apprentice II*	4
MGMT	221	Fundamental of Labor Relations	3
CMT	152	Construction Materials & Methods II	3
CMT	153	Construction Estimating - Cost Accounting	3
Communications Course			3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
CMA	133	Construction Cement Mason Apprentice III*	4
CMA	245	Construction Carpentry Apprentice IV*	4
MGMT	213	Human Relations in the Workplace	3
ENGR	251	Surveying	3
Humanities **OR** Social Science Course			3
Total Semester Credits			**17**

Apply for Graduation Now

Spring Semester			**Semester Credits**
CMA	255	Construction Cement Mason Apprentice V*	4
CMA	265	Construction Cement Mason Apprentice VI*	4
BUS	101	Introduction to Business	3
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
Human Relations Course			3
Total Semester Credits			**16**
Total Program Credits			**65**

*A Construction Cement Mason Apprentice Certificate will be given after the completion of the six courses marked with asterisks.

Construction Electrical Specialist*** Associate in Applied Science Degree (039E)

First Year

Fall Semester			**Semester Credits**
IEW Certificate Courses**			8
CMT	258	Contracts & Claims	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**14**

Spring Semester			**Semester Credits**
IEW Certificate Courses**			8
MGMT	221	Fundamentals of Labor Relations	3
Communications Course			3
CIS Elective (requires coordinator approval)			3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
IEW Certificate Courses**			8
HES	152	First Aid-Medical Self Help OR	2
HES	151	Personal Health and Wellness	
Human Relations Course			3
CMT	257	Construction Planning & Scheduling	3
Total Semester Credits			**16**

Apply for Graduation Now

Spring Semester			Semester Credits
IEW Certificate Courses**			8
CMT	103	Construction Materials & Methods I	3
CMT	153	Construction Estimating-Cost Accounting I	3
Humanities **OR** Social Science Course			3
Total Semester Credits			**17**
Total Program Credits			**64**

***For those students not admitted to the apprenticeship program and who would like to pursue training in the electrical/electronics field, please see the *Electrical/Electronics Technology* section of this catalog.

Construction Electrical Wireman Certificate (040E)

IEW	111	IBEW Electrician Inside Wireman I*	4
IEW	112	IBEW Electrician Inside Wireman II*	4
IEW	113	IBEW Electrician Inside Wireman III	4
IEW	114	IBEW Electrician Inside Wireman IV	4
IEW	211	IBEW Electrician Inside Wireman V	4
IEW	212	IBEW Electrician Inside Wireman VI	4
IEW	213	IBEW Electrician Inside Wireman VII	4
IEW	214	IBEW Electrician Inside Wireman VIII	4
IEW	215	IBEW Electrician Inside Wireman IX	4
IEW	216	IBEW Electrician Inside Wireman X	4
IEW	118	IBEW Elec Wireman Internship I	4
IEW	218	IBEW Elec Wireman Internship II	4
Total Credits			**48**

Construction Electrical Residential (040H)

IEW	131	IBEW Electrician Residential I	4
IEW	132	IBEW Electrician Residential II	4
IEW	233	IBEW Electrician Residential III	4
IEW	234	IBEW Electrician Residential IV	4
IEW	235	IBEW Electrician Residential V	4
IEW	236	IBEW Electrician Residential VI	4
IEW	138	IBEW Elec Residential Internship I	4
IEW	238	IBEW Elec Residential Internship II	4
Total Semester Credits			**32**

Construction Electrical Telecom (040I)

IEW	151	IBEW Electrician Installer/Tech I	4
IEW	152	IBEW Electrician Installer/Tech II	4
IEW	153	IBEW Electrician Installer/Tech III	4
IEW	154	IBEW Electrician Installer/Tech IV	4
IEW	251	IBEW Electrician Installer/Tech V	4
IEW	252	IBEW Electrician Installer/Tech VI	4
IEW	157	IBEW Elec Install/Tech Internship I	4
IEW	257	IBEW Elec Install/Tech Internship II	4
Total Semester Credits			**32**

Construction Electrical Lineman (040J)

IEW	141	IBEW Electrician Lineman I	4
IEW	142	IBEW Electrician Lineman II	4
IEW	241	IBEW Electrician Lineman III	4
IEW	242	IBEW Electrician Lineman IV	4
IEW	243	IBEW Electrician Lineman V	4
IEW	244	IBEW Electrician Lineman VI	4
IEW	145	IBEW Elec Lineman Internship I	4
IEW	245	IBEW Elec Lineman Internship II	4
Total Semester Credits			**32**

* All IEW courses are approved for the AAS degree **except** IEW 111 and IEW 112

** Students may only enroll in courses listed in their chosen certificate

Construction Ironworker Associate in Applied Science Degree (039D) and Ironworker Apprentice Certificate (040D)

First Year

Fall Semester			Semester Credits
IWA	119	Construction Ironworker Apprentice I*	4
MGMT	213	Human Relations in the Workplace	3
ACCT	105	Basic Accounting Procedures	3
Technical Elective			2
CIS	120	Introduction to the PC **AND**	1
CIS	160	Internet Basics **OR**	1
Higher Level CIS courses with approval of coordinators			
Total Semester Credits			**14**

Spring Semester			Semester Credits
IWA	129	Construction Ironworker Apprentice II*	4
IWA	139	Construction Ironworker Apprentice III*	4
CMT	244	Occupational Safety & Health	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**14**

Summer Semester			Semester Credits
ENGR	251	Surveying	3
IWA	249	Construction Ironworker Apprentice IV*	4
Total Semester Credits			**7**

Second Year

Fall Semester			Semester Credits
IWA	259	Construction Ironworker Apprentice V*	4
IWA	269	Construction Ironworker Apprentice VI*	4
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
Communications Course			3
Humanities **OR** Social Science Course			3
Total Semester Credits			**16**

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Spring Semester			Semester Credits
IWA	279	Construction Ironworker Apprentice VII*	4
IWA	289	Construction Ironworker Apprentice VIII*	4
BUS	101	Introduction to Business	3
Human Relations Course			3
Total Semester Credits			**14**
Total Program Credits			**65**

*An Ironworker Apprentice Certificate will be given after the completion of the eight courses marked with asterisks.

Students shall meet all institutional requirements for the Associate in Applied Science degree.

Construction Painting and Decorating Associate in Applied Science Degree (039F) and Painting and Decorating Apprentice Certificate (040F)

First Year

Fall Semester			**Semester Credits**
PDA	117	Painting & Decorating Apprentice I*	4
PDA	127	Painting & Decorating Apprentice II	4
Human Relations Course			3
CMT	102	Construction Blueprints & Specifications	3
CMT	103	Construction Materials & Methods I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
PDA	137	Painting & Decorating Apprentice III*	4
PDA	257	Painting & Decorating Apprentice V*	4
ACCT	105	Basic Accounting Procedures	3
MGMT	213	Human Relations in the Workplace	3
CMT	153	Construction Estimating - Cost Accounting	3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
PDA	267	Painting & Decorating Apprentice VI*	4
MGMT	221	Fundamentals of Labor Relations	3
ENG	101	Rhetoric & Composition I	3
Humanities **OR** Social Science Course			3
Total Semester Credits			**13**

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Spring Semester			**Semester Credits**
PDA	278	Painting & Decorating Apprentice VII*	4
PDA	288	Painting & Decorating Apprentice VIII*	4
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
Communications Course			3
Total Semester Credits			**13**

Total Program Credits **60**

*A Painting & Decorating Apprentice Certificate will be given after the completion of the six courses marked with asterisks.

Construction Sheetmetal Associate in Applied Science Degree (039B) and Sheetmetal Apprentice Certificate (040B)

First Year

Fall Semester			**Semester Credits**
SMA	114	Construction Sheetmetal Apprentice I*	4
SMA	124	Construction Sheetmetal Apprentice II*	4
CMT	102	Construction Blueprints & Specifications	3
CMT	103	Construction Materials & Methods I	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
SMA	134	Construction Sheetmetal Apprentice III*	4
SMA	144	Construction Sheetmetal Apprentice IV*	4
CMT	244	Occupational Safety & Health I	3
CMT	152	Construction Materials & Methods II	3
CMT	153	Construction Estimating - Cost Accounting	3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
SMA	254	Construction Sheetmetal Apprentice V*	4
SMA	264	Construction Sheetmetal Apprentice VI*	4
MGMT	221	Fundamentals of Labor Relations	3
Communications Course			3
Humanities **OR** Social Science Course			3
Total Semester Credits			**17**

Apply for Graduation Now

Spring Semester			**Semester Credits**
SMA	274	Construction Sheetmetal Apprentice VII*	4
SMA	284	Construction Sheetmetal Apprentice VIII*	4
HES	152	First Aid-Medical Self Help **OR**	2
HES	151	Personal Health and Wellness	
Human Relations Course			3
Total Semester Credits			**13**

Total Program Credits **64**

*A Sheetmetal Apprentice Certificate will be given after the completion of the eight courses marked with asterisks.

Requisites may be required for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

Completing an apprenticeship in building trades is not a dead-end goal. Building trades offer many opportunities for the Associate in Applied Science degree graduate.

The construction industry offers many varied employment opportunities. An apprenticeship completer can work at the trade while pursuing a bachelor's degree. A bachelor's degree would, in turn, open doors that could enable the construction worker to choose from an unlimited number of careers in the industry. Possibilities include:

- Contractor
- Insurance adjuster
- Bonding agent
- Engineer
- Architect's representative at a job site
- Construction manager
- Estimator
- Building inspector
- Job-site superintendent
- Foreman

Construction Management Technology

Coordinator/Faculty: Charles "Jim" Laing, ext. 5209
email: charles.laing@swic.edu

Dean: Bradley Sparks

This program provides the academic background, technical specialization and field experience to begin a career in construction management. Emphasis is placed on practices and principles necessary to compete in today's construction industry. Contact the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0039)

First Year

Fall Semester			**Semester Credits**
CMT	100	Introduction to Construction*	3
CMT	102	Construction Documents	3
CMT	105	Computer Applications for Construction	4
GT	105	Introduction to Technical Math **OR**	
MATH	112	College Algebra	4
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
CMT	244	Occupational Safety and Health I	3
CMT	103	Materials & Methods I	3
CMT	153	Construction Estimating (Spring Only)	3
ECON	115	Introduction to Economics **OR**	
ACCT	105	Basic Accounting Procedures	3
SPCH	151	Fundamentals of Public Speaking **OR**	
ENG	102	Rhetoric & Composition II **OR**	
ENG	103	Technical Communication	3
HES	152	First Aid-Medical Self Help	2
Total Semester Credits			**17**

Summer Semester			**Semester Credits**
CMT		Internship I**	3
CMT	206	Building Systems (MEP) (Summer Only)	3
Total Semester Credits			**6**

Second Year

Fall Semester			**Semester Credits**
CMT	152	Materials and Methods II	3
CMT	257	Construction Planning and Scheduling (Fall Only)	3
CMT	258	Contracts and Claims	3
ENGR	251	Surveying	3
MGMT	214	Principles of Management **OR**	
MGMT	221	Fundamentals of Labor Relations	3
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
CMT	268	Project Administration	3
CMT	265	Advanced Computer Applications	4
PHIL	152	Ethics	3
PHYS	101	General Physical Science **OR**	
Approved CMT Elective***			4
Total Semester Credits			**14**

Total Program Credits	**69**

*CMT 145 OR any construction apprenticeship building course substitutes for CMT 100
**CMT 146 OR any construction apprenticeship building course substitutes for CMT Internship
***CMT Approved Electives:
ANY college-level course approved by the program coordinator

There are requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Construction Management Technology program is prepared to work as a(n):

- Construction manager
- Estimator
- Job-site superintendent
- Foreman

Certificate Programs

CMT Certificate (0040)

A certificate program in Construction Management Technology is primarily for in-service training of persons employed in the construction field. Students acquire further formal training in their occupation.

			Semester Credits
CMT	100	Introduction to Construction	3
CMT	102	Construction Documents	3
CMT	103	Construction Materials & Methods I	3
CMT	105	Computer Applications for Construction	4
CMT	152	Construction Materials and Methods II	3
CMT	153	Construction Estimating	3
CMT	206	Building Systems (MEP)	3
CMT	244	Occupational Safety & Health I	3
CMT	257	Construction Planning & Scheduling	3
CMT	258	Contracts and Claims	3
CMT	268	Project Administration	3
ENGR	251	Surveying	3
Total Credits			**37**

Building Performance Certificate (036A)

This certificate program focuses on energy efficiency of residential structures and provides the student opportunity for nationally recognized Building Performance Institute certifications. Building analysis and weatherization techniques including blower door, indoor air quality and combustion analysis are included. Specific focus on building science, buildings and their systems, standards and specifications is included.

			Semester Credits
CMT	147	Energy Auditor	4
CMT	148	Weatherization Specialist	4
CMT	149	Weatherization II	1.5
Total Credits			**9.5**

Building Information Modeling Certificate (036B)

The SWIC Building Information Modeling Certificate provides opportunities for students to explore pre-construction and construction phases of building projects using information modeling software. The computer is very much alive in the construction industry and as demand increases as a result of more stringent building codes, sustainable construction methods and alternate project delivery methods, use of BIM will continue to grow. Students are required to learn modeling software including identification and assembly of parts and products. Unlike traditional two-dimensional drawings, BIM models store information related to both quantity and quality of the proposed structure. Students learn how to use the software to the benefit of the construction process including, structural, HVAC, plumbing and electrical systems integration for the purpose of constructability modeling, clash detection, scheduling and estimating, as well as other pre-construction phase tasks. Construction applications include process improvement techniques while focusing on updating the model as change occurs during construction. Students will be introduced to advanced delivery methods including paperless job sites, the virtual job trailer as well as tough tablet use on job sites. The Building Information Modeling Certificate will provide current needed training and experience for construction managers, scheduling and estimating staff, designers, draftsmen, project superintendents, job foreman and building tradespeople.

			Semester Credits
CMT	105	Computer Applications for Construction	4
CMT	265	Advanced Computer applications	4
Total Credits			**8**

Building Trades Safety (036C)

This certificate provides students with opportunities to experience several trade specialization areas. Student explore "hands-on" techniques, including the use and proper handling of tools and materials, with an emphasis on the safety aspects related to each trade. In addition to SWIC's Building Trades Safety Certificate, successful completion of CMT 244 will result in OSHA 30 certification.

			Semester Credits
CMT	145	Building Trades Craft Survey 1* (Summer Only)	4
CMT	146	Building Trades Craft Survey II** (Summer Only)	4
CMT	244	Occupational Safety and Health I	3
Total Credits			**11**

*CMT 145 OR any construction apprenticeship building course substitutes for CMT 100
**CMT 146 OR any construction apprenticeship building course substitutes for CMT Internship

Some courses have requisites. Refer to the *Course Description Guide* beginning on page 246.

Culinary Arts and Food Management

Coordinator/Faculty: Leisa Brockman, ext. 7389/5436

Dean: Janet Fontenot

The Culinary Arts and Food Management program prepares students for entry-level positions in the food service industry. The program offers five different educational options to meet students' specific needs.

The Associate in Applied Science degree program provides students with the knowledge of restaurant management and culinary arts skills necessary to obtain entry-level chef or restaurant management positions. Some graduates prefer to transfer to a four-year institution to pursue a bachelor's degree. The program has an outstanding reputation among notable colleges and universities. SWIC can assist in the transfer process.

The four Culinary Arts and Food Management certification programs provide specific foundations to help prepare for a particular job in the industry or to enhance present job skills. One certificate offers a food service concentration while another offers a food service and management combination. The third certificate concentrates on food preparation. The fourth certificate focuses specifically on the art and science of baking and pastry.

SWIC Culinary Arts and Food Management AAS is accredited by the American Culinary Federation Education Foundation Inc. Accrediting Commission and partnered with the National Restaurant Association and the Council of Hotel, Restaurant and Institutional Educators.

Students in the Culinary Arts and Food Management program must be able to perform physical requirements as identified by the department.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (066A)

Program Requisite			**Semester Credits**
CUL	116	Food Service Sanitation (or valid Food Handler's Certificate)	1

First Year

Fall Semester			**Semester Credits**
CUL	101	Introduction to Culinary Arts	1
ENG	101	Rhetoric & Composition I	3
MGMT	102	Business Math	3
CUL	115	Table Service	2
CUL	110	Professional Food Preparation I	5
CIS	120	Introduction to the PC	1
OAT	132	Electronic Spreadsheet Basics	1
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
SPCH	151	Fundamentals of Public Speaking	3
ACCT	105	Basic Accounting Procedures	3
HES	152	First Aid-Medical Self Help	2
CUL	111	Professional Food Preparation II	5
CUL	105	Food, Beverage, Labor Cost Control	3
CUL	127	Baking & Pastry	2
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
SOC	153	Introductory Sociology	3
CUL	123	Legal Aspects of Food Service Management	3
CUL	228	Culinary Nutrition for Food Service	3
CUL	209	Hospitality Management	3
CUL	114	Garde Manger	3
Humanities **OR** Social Science			3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
CUL	206	Menu Development & Pricing	3
CUL	212	Food Service Purchasing	3
BUS	101	Introduction to Business	3
MKT	126	Introduction to Marketing	3
CUL	230	Internship I	3
CUL	Elective		3
Total Semester Credits			**18**

Total Program Credits	**71**

Students must meet all institutional requirements for the Associate in Applied Science degree.

CUL Electives			Semester Credits
CUL	112	Advanced Professional Cooking	3
CUL	113	Soups, Stocks and Sauces	3
CUL	118	Fundamentals of Meat Processing	3
CUL	126	Food Service Sanitation Refresher Course	.5
CUL	128	Advanced Professional Baking	2
CUL	129	Cake Decorating I	2
CUL	130	Cake Decorating II	2
CUL	131	Experimental Baking Techniques	2
CUL	132	Ice Cream and Frozen Desserts	2
CUL	133	Sustainable Kitchen	2
CUL	200	Culinary Competition	2
CUL	231	Internship II	3
CUL	232	Advanced Decorating Techniques	4
CUL	233	Contemporary Plating Techniques	2
CUL	234	Breads, Bakeries, and Pastries	2
CUL	299	Special Topics (with coordinator's approval)	1-3

Certificate Programs

Food Service (066B)

CUL	116	Food Service Sanitation **OR** Valid Food Handler's Certificate	1
CUL	101	Introduction to Culinary Arts	1
CUL	110	Professional Food Preparation I	5
CIS	120	Introduction to the PC	1
OAT	132	Electronic Spreadsheet Basics	1
CUL	111	Professional Food Preparation II	5
CUL	112	Advanced Professional Cooking	3
CUL	209	Hospitality Management	3
CUL	228	Culinary Nutrition for Food Service	3
Total Credits			**23**

Food Service and Management (066C)

Food Service Certificate (066B)			23
CUL	212	Food Service Purchasing	3
CUL	230	Internship I	3
CUL	231	Internship II	3
CUL	123	Legal Aspects of Food Service Management	3
CUL	Elective		3
Total Credits			**38**

Culinary Arts (066D)

CUL	116	Food Service Sanitation **OR** Valid Food Handler's Certificate	1
CUL	101	Introduction to Culinary Arts	1
CUL	110	Professional Food Preparation I	5
CUL	111	Professional Food Preparation II	5
CUL	112	Advanced Professional Cooking	3
CUL	127	Baking & Pastry	2
CUL	209	Hospitality Management	3
CUL	228	Culinary Nutrition for Food Service	3
Total Credits			**23**

Baking & Pastry (066E)

CUL	116	Food Service & Sanitation **OR** Valid Food Handler's Certificate	1
CUL	101	Introduction to Culinary Arts	1
CUL	105	Food, Beverage & Labor Cost Control	3
CUL	110	Professional Food Preparation I	5
CUL	127	Baking & Pastry	2
CUL	128	Advanced Professional Baking	2
CUL	129	Cake Decorating I	2
CUL	130	Cake Decorating II	2
CUL	131	Experimental Baking Techniques	2
CUL	132	Ice Cream and Frozen Desserts	2
CUL	133	Sustainable Kitchen	2
CUL	209	Hospitality Management	3
CUL	228	Culinary Nutrition for Food Service	3
CUL	232	Advanced Decorating Techniques	4
CUL	233	Contemporary Plating Techniques	2
CUL	234	Breads, Rolls and Pastries	2
CUL	230	Internship I	3
Total Credits			**41**

Some courses have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Culinary Arts and Food Management program is prepared to work as a:

- Chef
- Assistant manager
- Assistant food and beverage manager
- Entry-level food service manager
- Kitchen manager
- Catering manager
- Production supervisor
- Pastry chef
- Bakery manager

Early Childhood Education

Coordinator/Faculty: Carolyn Beal

Dean: Richard Spencer

This program is designed to prepare students to work with young children in various early childhood settings. Students will receive instruction in theories of child development, developmentally appropriate practice, adapting for children with special needs, and establishing relationships with parents. (Also see the Early Childhood Education transfer option in Associate in Arts program area.) **See the program coordinator or an academic advisor for more information.** Note: Please see the following ISBE website for the steps to apply for an approval letter to be a paraprofessional: www.isbe.net/licensure/html/paraprofessional_applying.htm.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0073)

First Year

Fall Semester			**Semester Credits**
ECE	110	Intro to Early Childhood Education	3
ECE	112	Growth & Development of Children	3
ENG	101	Rhetoric & Composition I	3
SOC	153	Introduction to Sociology	3
MGMT	102	Business Mathematics **OR**	3-5
MATH	097	Intermediate Algebra or higher	
Total Semester Credits			**15-17**

Spring Semester			**Semester Credits**
ECE	114	Child Health Maintenance	3
ENG	102	Rhetoric & Composition II	3
HES	151	Personal Health and Wellness	2
PSYC	151	General Psychology	3
ECE	250	Child, Family and Community	3
Lab Science Course			4
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
Technology Elective			3
ECE	116	Children with Special Needs	3
ECE	118	Early Childhood Practicum I	3
ECE	121	Early Childhood Curriculum	3
LIT	293	Children's Literature	3
Humanities Course			3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
ECE	125	Early Childhood Administration	3
ECE Elective			3
CUL	116	Food Service Sanitation	1
HES	152	First Aid-Medical Self Help*	2
Humanities Course			3
Any 100-level or higher course			3
Total Semester Credits			**15**
Total Program Credits			**66-68**

*Students who hold current First-Aid and CPR certificates in the semester they plan to graduate can obtain a waiver out of HLTH 152 from the program coordinator.

Certificate (0072)

Fall Semester			**Semester Credits**
ECE	110	Intro to Early Childhood Education	3
ECE	112	Growth & Development of Children	3
ECE	114	Child Health Maintenance	3
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology	3
SOC	153	Introduction to Sociology	3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
ECE	116	Children with Special Needs	3
ECE	118	Early Childhood Practicum I	3
ECE	121	Early Childhood Curriculum	3
ECE	250	Child, Family and Community	3
ECE Elective			3
Total Semester Credits			**15**
Total Credits			**33**

Some courses have requisites. Refer to the *Course Description Guide* beginning on page 246.

Early Childhood Education Electives

ECE	122	Infant and Toddler Care
ECE	200	ECE Leadership & Supervision
ECE	210	Understanding & Guiding Behavior of Young Children
Any ECE 299		Special Topics course

Technology Electives

ED	260	Educational Technology
OAT	156	Microsoft Office Suite I
OAT	180	Word Processing

Career Opportunities

A graduate of the Early Childhood Education program can find employment as a (an):

- Head Start teacher
- Child care worker (certificate with one year experience or Associate in Applied Science degree).
- Child care director (Associate in Applied Science degree)
- Public school individual/classroom aide (paraprofessional)
- Early childhood special education aide (paraprofessional)

Electrical/Electronics Technology Programs

Associate in Applied Science Degrees and/or Certificate Programs in

- Industrial Electricity
- Electronics Technology
- Electrical Technology
- Automated Manufacturing Systems
- Microcomputer Hardware Repair

Coordinator/Faculty: Thomas Zach, ext. 7456 or 5432;
email: thomas.zach@swic.edu

Electrical and electronic devices, circuits, equipment and systems play a major role in countless aspects of the world in which we live and work. Computers, cell phones, home appliances, heating/cooling systems, cars, lighting, hospital equipment, industrial and manufacturing systems, alternative energy systems, and an almost endless list of other items, all use some form of electronic circuitry and electrical power to perform their various functions. In many respects, electricity/electronics is the major and most universal component common to this almost endless list of technologies that surround us and that we encounter and use daily. Developing, building and maintaining these ever-expanding and increasingly complex electrically driven technologies will require well-trained electricians and electronic technicians who have a solid foundation and skills in electrical and electronic theories, devices, equipment and systems. These electrical and electronic technicians are needed and will continue to be needed in the future at all levels from product development through maintenance. The Electrical/Electronics Technology programs at SWIC is designed to do exactly that – provide students with those necessary skills and knowledge to become employed as one of those needed electrical and electronic technicians.

Employers value the balanced treatment of topics included in the college's Electrical/Electronic Technology curriculum. Students cover the spectrum from basic electrical concepts, to operation and application of common electrical/electronic devices, to current trends in industrial and electronic equipment and systems and design and estimating of electrical systems. Employers know a graduate of the Electrical/Electronics Technology program can function in a real-world setting, has the foundation of electrical knowledge and skills required to easily adapt to and learn employers' particular equipment and systems, and can handle the lifelong learning required of today's technician.

Additionally, because of the universal nature and application of electricity and electronics, graduates who have a strong foundation in the electrical/electronic field can easily expand their skills and knowledge into other career areas to become multi-skilled craftsman.

Students can earn a Certificate of Proficiency or Associate in Applied Science degree. After graduation, a student will be qualified for entry-level employment in any aspect of the electrical/electronic career field that involves the development, design, estimation, manufacture, test, installation, repair and maintenance of electrical and electronic equipment and systems.

Coordinator/Faculty: Thomas Zach, ext. 7456 or 5432
email: thomas.zach@swic.edu

Dean: Bradley Sparks

All students entering any of the EET AAS degree programs **must** have the math and English assessment placement evaluation **before** enrolling in any electrical/electronics class. **For those students only entering into a certificate program, assessment is not required; however, students are highly encouraged to take the assessment placement evaluation, and if necessary, enroll in appropriate courses to bring their skills to a level that will help ensure their success in later courses. See the program coordinator or an academic advisor for more information**.

In addition, a student can earn a bachelor's degree by transferring to a college which accepts the Associate in Applied Science degree and offers the Bachelor of Science in technology or comparable degree.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Electronics Technology Associate in Applied Science Degree (0017)

First Year

Fall Semester			**Credits**
EET	101	Intro to Electricity/Electronics	5
GT	104	Math for Electricity and Electronics	4
ENG	101	Rhetoric & Composition I	3
Humanities **OR** Social Science Course			3
Human Well-Being Elective			2
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
EET	121	Electronic Devices and Circuits	3
EET	131	Electrical Wiring Principles	3
EET	200	Digital Electronic Circuits	3
NETW	101	Introduction to Networking	3
ENG	103	Technical Communication **OR**	3
ENG	102	Rhetoric & Composition II **OR**	
SPCH	151	Fundamentals of Public Speaking	
Total Semester Credits			**15**

Summer Semester			**Semester Credits**
EET	250	Microcomputer Maintenance – Beginning	3
Human Relations Elective			3
Total Semester Credits			**6**

Second Year

Fall Semester			**Semester Credits**
EET	205	Digital Electronic Circuits II	4
EET	210	Introduction to Microprocessors	4
EET	232	Instrumentation Fundamentals	4
EET	260	Communications Electronics I	3
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
EET	225	Microprocessor Interfacing	4
EET	231	Introduction to Robotics	4
EET	269	Electrical and Electronics Capstone	2
EET Elective			3
EET or Approved Elective			3-4
Total Semester Credits			**16-17**

Total Program Credits **69-70**

Electronics Technology Electives			**Semester Credits**
EET	102	Electrical/Electronics Computer Applications	2
EET	201	Wind & Solar Power Installation and Maintenance	2
EET	234	Instrumentation Systems	4
EET	235	Programmable Logic Controllers	3
EET	238	Special Purpose Electrical Devices & Wiring	3
EET	239	Advanced PLCs	3
EET	240	Motors Drives	3
EET	241	Electrical Power, Motors & Controls	3
EET	242	Electrical Control Systems I	4
EET	243	NEC for Industrial/Commercial	3
EET	244	Electrical Control Systems II	3
EET	246	Power Generation/Distribution	3
EET	247	DC Crane controls	4
EET	252	Microcomputer Maintenance – Intermediate	3
EET	255	Microcomputer Maintenance – Advanced	3
EET	256	Preparation for A+ Certification	3
AVE	131	Introduction to Avionics Installation	3
AVE	141	Avionics Installation Trends	3
EET	290	Supervised Internship I	2-4
EET	291	Supervised Internship II	2-4
EET	292	Supervised Internship III	2-4
EET	293	Supervised Internship IV	2-4
EET	298	Electrical Print Reading*	2
EET	299	Special Topics Electricity/Electronics	.5-4

Certificate Programs

Electronics Technology Certificate (0018)

EET	101	Intro to Electricity & Electronics	5
EET	121	Electronic Devices and Circuits	3
EET	131	Electrical Wiring Principles	3
EET	200	Digital Electronic Circuits	3
EET	205	Digital Electronics II	4
EET	210	Introduction to Microprocessors	4
GT	104	Math for Electricity and Electronics	4
Total Credits			**26**

Automated Manufacturing Systems (017B)**

EET	231	Introduction to Robotics	4
EET	232	Instrumentation Fundamentals	4
EET	234	Instrumentation Systems	4
EET	235	Programmable Logic Controllers	3
EET	239	Advanced PLCs	3
EET	240	Motors and Drives	3
IDP	276	Industrial Hydraulics I	4
IML	119	Mechanical Systems	4
Total Credits			**29**

Microcomputer Hardware Maintenance (017C)**

EET	250	Microcomputer Maintenance – Beginning	3
EET	252	Microcomputer Maintenance – Interm.	3
EET	255	Microcomputer Maintenance – Advanced	3
NETW	101	Introduction to Networking	3
Total Credits			**12**

**Entry in the Automated Manufacturing Systems or Microcomputer Hardware Maintenance certificate programs requires basic electronic courses or program coordinator approval.

Career Opportunities

A graduate of the Electrical/Electronic Technology program is prepared to work in one or all of the following areas:

Electronics Technology Program

- General purpose electronic technician
- Electrical and electronics installer and repairer, commercial and industrial equipment
- Electronic equipment and systems repairman
- Electronic equipment manufacturing and assembly
- Radio and telecommunications equipment installer and repairer
- Field service technician
- Electronic home entertainment equipment installers and repairer
- Broadcast and sound engineering technician

In addition to the above general categories of work, graduates from specialty certificate areas could be employed as:

Automated Manufacturing Systems Program

- Maintenance electrician
- Instrumentation technician
- Instrumentation technologies and mechanics
- Industrial control systems specialist
- Industrial electronics repairman

Microcomputer Hardware Maintenance Program

- Prepared to take the A+ Certification Exam
- Computer repair technician
- Computer service technician
- Computer, automated teller, and office machine repairer
- Customer service technician

Industrial Electricity Associate in Applied Science Degree (0053)

First Year

Fall Semester			**Semester Credits**
EET	101	Intro to Electricity & Electronics	5
GT	104	Math for Electricity and Electronics	4
ENG	101	Rhetoric & Composition I	3
Humanities **OR** Social Science Course			3
Human Well-Being Elective			2
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
EET	200	Digital Electronic Circuits	3
EET	131	Electrical Wiring Principles	3
EET	121	Electronic Devices and Circuits	3
IML	119	Mechanical Systems	4
ENG	103	Technical Communication **OR**	3
ENG	102	Rhetoric & Composition II **OR**	
SPCH	151	Fundamentals of Public Speaking	
Total Semester Credits			**16**

Summer Semester			**Semester Credits**
EET	242	Electrical Control Systems I	4
Human Relations Elective			3
Total Semester Credits			**7**

Second Year

Fall Semester			**Semester Credits**
EET	243	NEC for Industrial Commercial	3
EET	240	Motors and Drives	3
EET	244	Electrical Control Systems II	3
EET	235	Programmable Logic Controllers	3
EET Elective			3
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
EET	269	Electrical and Electronics Capstone	2
EET	246	Power Generation/Distribution	3
EET	247	DC Crane Controls	4
EET	239	Advanced PLCs	3
EET or Approved Elective			3-4
Total Semester Credits			**15-16**

Total Program Credits **70-71**

Industrial Electricity Electives			Semester Credits
EET	102	Electrical/Electronics Computer Applications	2
EET	201	Wind & Solar Power Installation and Maintenance	2
EET	205	Digital Electronic Circuits II	4
EET	210	Introduction to Microprocessors	4
EET	225	Microprocessor Interfacing	4
EET	231	Introduction to Robotics	4
EET	232	Instrumentation Fundamentals	4
EET	234	Instrumentation Systems	4
EET	238	Special Purpose Devices and Wiring	3
EET	250	Microcomputer Maintenance – Beginning	3
EET	252	Microcomputer Maintenance – Intermediate	3
EET	255	Microcomputer Maintenance – Advanced	3
EET	260	Communication Electronics I	3
EET	290	Supervised Internship I	2-4
EET	291	Supervised Internship II	2-4
EET	292	Supervised Internship III	2-4
EET	293	Supervised Internship IV	2-4
EET	298	Electrical Print Reading	2
EET	299	Special Topics Electricity/Electronics	.5-4

Certificate Programs

Industrial Electricity Certificate (0054)

EET	101	Intro to Electricity and Electronics	5
EET	121	Electronic Devices and Circuits	3
EET	131	Electrical Wiring Principles	3
EET	200	Digital Electronics Circuits I	3
EET	240	Motors and Drives	3
EET	242	Electrical Control Systems I	4
EET	244	Electrical Control Systems II	3
EET	246	Power Generation/Distribution	3
EET	235	Programmable Logic Controllers	3
GT	104	Math for Electricity and Electronics	4
Total Credits			**34**

Electrical Technology Certificate (053J)

EET	101	Intro to Electricity & Electronics	5
EET	121	Electronic Devices and Circuits	3
EET	131	Electrical Wiring Principles	3
EET	200	Digital Electronic Circuits	3
GT	104	Math for Electronics	4
EET	238	Special Purpose Electrical Devices & Wiring	3
EET	241	Electrical Power, Motors and Controls	3
EET	243	NEC for Industrial/Commercial	3
Total Credits			**27**

Career Opportunities

A graduate of the Industrial Electrician program is prepared to work in any of the following areas:

Industrial Electrician Program

- Industrial maintenance electrician
- Electrical repair technician
- Electrical and electronics installer and repairer, commercial and industrial equipment
- Industrial electrician
- Industrial electrical equipment repairman
- Electrical equipment and systems repairman

Electrical Technology Certificate

- General purpose residential and commercial electrician
- Electrician and electrical helper
- Electrical apprentice
- Wind and solar power apprentice

Some courses have requisites. Refer to the *Course Description Guide* beginning on page 246.

To satisfy general educational requirements, additional elective courses are made available to complete the Associate in Applied Science degree program. These consist of many courses outside the Electrical/Electronic Technology program that are, in some measure, relative to this field of study and will enhance the training and experiences of the degree holder. Following is a sampling of Approved Electives, but this is by no means a complete list. Acceptance of any Approved Elective not on this list will be made by the dean or program coordinator. Electrical/Electronic Technology courses may also be used in place of Approved Elective courses.

Approved Electives

BUS		Any Business (BUS) course
CIS		Any Computer Information Systems (CIS) course (recommended)
CAD		Any Computer Aided Drafting (CAD) course
ENG	103	Technical Communication
ENG	105	College Reading (Recommended)
GT	106	Technical Mathematics I (or MATH 112)
GT	107	Technical Mathematics II (or MATH 114)
GT	208	Technical Mathematics III (or MATH 203)
PHYS	151	College Physics I
PHYS	152	College Physics II
POLS	150	Intro to American Government
NETW	101	Introduction to Networking
IDP	276	Industrial Hydraulics I
IML	119	Mechanical Systems
IML	169	Industrial Pneumatics

Emergency Medical Technician

Coordinator: Curt Schmittling, ext. 5343
Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

SWIC Emergency Medical Services programs prepare students for varying levels of pre-hospital care in emergency medicine. Currently, SWIC offers two levels of training: Emergency Medical Technician and Paramedic. The most basic level of care is provided by the emergency medical technician.

An EMT is prepared to care for patients at the scene, and while transporting patients to the hospital under the supervision of a physician via radio communications. The EMT is able to assess a patient's condition and manage various medical and traumatic emergencies.

To become an Illinois licensed EMT, students must be at least 18 years of age and have a high school diploma or GED® (High School Equivalency). They must successfully complete the seven-semester-credit EMS 110 Emergency Medical Technician course and pass either the state or national EMT examination prior to licensure and practice (differences are explained during the course).

For further information regarding the field of Emergency Medicine, refer to the Occupational Outlook Handbook at www.bls.gov/ooh/healthcare/emts-and-paramedics.htm. **Contact the program coordinator, coordinators' assistant, or an academic advisor for more information.**

About the Program

To complete this program students enroll in EMS 110, a seven-semester-credit course that can be completed in one semester. During this course, students attend classroom lectures as well as supervised clinical practice in area hospitals and other health care facilities. Clinical practice includes 24 observation hours in the emergency room.

Enrollment Into the Course

A. Students must meet program-specific medical requirements and must be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/ems. Students are encouraged to meet with the Disability & Access Center to discuss potential issues associated with meeting these requirements at 618-235-2700, ext. 5368.
B. The EMS 110 course is offered at the Belleville, Red Bud, and Sam Wolf Granite City campuses as well as off-campus locations.
C. Students must complete a placement test to assess reading, writing and math skills. Student's scores must indicate student is eligible for ENG 101 and MATH 94 (or greater) to enroll in EMS 110. To schedule the assessment test, call or visit the Testing Center at the Belleville Campus, 618-235-2700, ext. 5182; the Red Bud Campus, 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 618-931-0600, ext. 7337.
D. Students should check the location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at the clinical facilities assigned by the program. Students should be aware that health insurance is required during clinical practice. Students are personally responsible for any costs incurred for injuries occurring during their clinical practice.
E. Criminal background check, random drug test and name search on government registries which prohibit employment in health care professions are also required prior to clinical practice. Payment for these checks and test are included in lab fees. However, an additional fee of $13 for states other than Missouri/Illinois in which the student has worked or resided since the age of 18 years may be required. Students with positive results from either criminal background check, drug test or listings on prohibitory sites will be dismissed with no refund of tuition or lab fees. See the program coordinator or coordinators' assistant for more information
F. Students participating in the SWIC EMT program are subject to all provisions of the existing college catalog, EMT student handbook and course syllabus with respect to attendance during the period of their enrollment.

Certificate Emergency Medical Technician (068C)

EMS	110	Emergency Medical Technician	7

Career Opportunities

Once successfully licensed, the EMT may seek employment on an ambulance, in a hospital, or in a setting where EMTs are needed (i.e. security, casinos, industrial plants). In addition, many licensed EMTs further their education by becoming paramedics, nurses, physician assistants, physicians or other health care providers. In fact, some students pursuing advanced degrees are directed to take the EMT course to get some practical patient experience.

According to the U.S. Department of Labor, employment is projected to grow much faster than average as paid emergency medical technician positions replace unpaid volunteers, and competition will be greater for jobs in local fire, police, and rescue squad departments than in private ambulance services. Opportunities are best for those who have advanced certifications.

Average Starting Salary:

Earnings of EMTs and paramedics depend on the employment setting and geographic location as well as the individual's training and experience. The average annual earnings of EMTs and paramedics are between $24,000 and $34,000.

Fire Science

Coordinator/Faculty: Lee Smith, 618-234-5138

Program Location: Fire Science Training Center, 1512 Freeburg Ave., Belleville, IL

Dean: Julie Muertz

The Fire Science program includes a two-year curriculum leading to an Associate in Applied Science degree involving 66 semester credits with two options. Students that are not currently active members of a fire department must select the Fire Protection Administration option. Students that are active members of either a full-time, part-time, or volunteer fire department may select the Fire-Rescue Specialist or the Fire Protection Administration option.

The program also offers 12 certificate programs which are only open to active fire department members, rescue team members or emergency medical service providers. These programs are designed to meet various national fire service training standards and lead to certification by the Office of the Illinois State Fire Marshal. Many certificate and Fire-Rescue Specialist courses require demonstration of skills that involve strenuous physical activity that may be considered dangerous. These courses may also require the student to provide sophisticated personal protective equipment in order to participate in class activities. The approval of the program coordinator and official sponsorship by the student's fire department or employer may be required for enrollment. **Contact the program coordinator or an academic advisor for more information.**

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0057)

First Year

Fall Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
SOC	153	Introductory Sociology	3
FS	101	Principles of Emergency Services	3
FS	102	Fire Behavior and Combustion	3
FS	110	Fire Prevention	3
Human Well-Being Elective(s)			3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
SPCH	151	Fundamentals of Public Speaking	3
FS	116	Building Construction for Fire Protection	3
FS	131	Fire Protection Systems	3
FS	170	Strategy & Tactics	3
Social Science Elective***			3
Total Semester Credits			**15**

Second year – Fire Protection Administration Option

Fall Semester			**Semester Credits**
SOC	230	Race and Ethnicity in the United States	3
FS	206	Fire Protection Hydraulics	3
FS	231	Fire Service Administration	3
General Humanities Elective***			3
Physical Science Elective***			4
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
MATH	112	College Algebra	4
FS	233	Occup Safety & Health in EMS	3
FS	237	Legal Aspects of FS	3
Humanities-Fine Arts Elective***			3
Life Sciences Elective***			4
Total Semester Credits			**17**

OR

Second Year – Fire-Rescue Specialist Option

Fall Semester			**Semester Credits**
FS	100	Fire Fighter A	4
FS	115	Fire Fighter B	3
FS	120	Fire Service Vehicle Operator	1
FS	130	Fire Fighter C	2
FS	160	Technical Rescue Awareness	.5
FS	181	Haz Mat First Responder	1.5
FS	205	Fire Apparatus Engineer	3
Total Semester Credits			**15**

Spring Semester	**Semester Credits**
Fire Science Approved Electives**	18
Total Semester Credits	**18**
Total Program Credits	**66**

***Contact Fire Science Coordinator Lee Smith for course specifics if planning to transfer with articulation an agreement.

****The following are approved Fire Science Electives**

EMS	105	First Responder-EMS	4
EMS	110	Emergency Medical Technician	7
FS	159	Fire Suppression & Rescue	.5
FS	200	Fire Service Instructor I	3
FS	201	Fire Officer I	5
FS	210	Fire Service Instructor II	3
FS	211	Fire Officer II	3
FS	260	Vehicle Rescue Operations	3
FS	262	Rope Rescue I & II	3
FS	264	Confined Space Rescue I & II	3
FS	266	Trench Rescue I & II	3
FS	268	Water Rescue I & II	3
FS	280	Hazardous Materials – Awareness	.5-1.5
FS	282	Hazardous Materials Technician A	3
FS	285	Hazardous Materials Chemistry	3
FS	299	Special Topics in Fire Science	.5-4
HS	100	Intro to Homeland Security	3
AOJ	285	Basic Arson Investigation	4.5

All students must complete graduation degree requirements listed in the front of the blue section for an Associate in Applied Science degree including the requirement for Human Relations coursework.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

An AAS graduate of the Fire Science program is prepared to work as a:

- Fire fighter
- Fire inspector
- Public safety officer
- Industrial fire brigade member

Certificate Programs

The following Fire Science certificate options are only open to active fire department members, rescue team members or emergency medical service providers. The approval of the program coordinator and official sponsorship by the student's fire department or employer may be required for enrollment.

Fire Fighter I & II (057A)

FS	100	Fire Fighter A	4
FS	115	Fire Fighter B	3
FS	120	Fire Service Vehicle Operator	1
FS	130	Fire Fighter C	2
FS	160	Technical Rescue Awareness	.5
FS	181	Hazardous Materials First Responder	1.5
Total Credits			**12**

Fire Apparatus Engineer (057C)

FS	120	Fire Service Vehicle Operator	1
FS	205	Fire Apparatus Engineer	3
Total Credits			**4**

Fire Service Instructor I (057D)

FS	200	Fire Service Instructor I	3
Total Credits			**3**

Fire Service Officer I (057E)

FS	200	Fire Service Instructor I	3
FS	201	Fire Officer I	5
Total Credits			**8**

Fire Service Instructor II (057F)

FS	210	Fire Service Instructor II	3
Total Credits			**3**

Fire Service Officer II (057G)

FS	210	Fire Service Instructor II	3
FS	211	Fire Officer II	3
Total Credits			**6**

Haz Mat First Responder (057H)

FS	181	Hazardous Materials First Responder	1.5
Total Credits			**1.5**

Vehicle Rescue Operations (057J)

FS	160	Technical Rescue Awareness	.5
FS	260	Vehicle Rescue Operations	3
Total Credits			**3.5**

Rope Rescue I & II (057L)

FS	160	Technical Rescue Awareness	.5
FS	262	Rope Rescue I & II	3
Total Credits			**3.5**

Confined Space Rescue I & II (057N)

FS	160	Technical Rescue Awareness	.5
FS	262	Rope Rescue I &II	3
FS	264	Confined Space Rescue I & II	3
Total Credits			**6.5**

Trench Rescue I & II (057P)

FS	160	Technical Rescue Awareness	.5
FS	262	Rope Rescue I & II	3
FS	266	Trench Rescue I & II	3
Total Credits			**6.5**

Water Rescue I & II (057Q)

FS	160	Technical Rescue Awareness	.5
FS	262	Rope Rescue I & II	3
FS	268	Water Rescue I & II	3
Total Credits			**6.5**

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Graphic Communications

For more computer classes, see:
Computer Information Systems
Network Design and Administration
Office Administration and Technology
Web Designer
Web Development and Administration

Coordinator/Faculty: Nikki Hensley, ext. 5382
Faculty: Beth Burns

Dean: Janet Fontenot

The Graphic Communications Associate in Applied Science degree consists of a combination of technical software and art/design/theory courses to teach the student not only the theory of graphic communications, but the application of this exciting and cutting-edge profession. Encompassing both Web and print advertising fields, students will gain the knowledge most sought after by advertising agencies, large corporations and businesses wishing to improve their business communications.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0140)

First Year

Fall Semester			**Semester Credits**
CIS	125	Operating System Basics	1
CIS	147	Fonts & Types	2
CIS	148	Document Management	1
CIS	155	Basic Web Page Design	1
CIS	164	Internet Essentials	3
CIS	168	Graphic Design OR	3
ART	111	Basic Design	
CIS	171	Computer Graphics	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

First Year

Spring Semester			**Semester Credits**
CIS	172	Photoshop	3
CIS	173	Graphics and Animation/Flash	3
CIS	174	HTML	3
CIS	257	Electronic Publishing/InDesign	3
English OR Journalism Elective OR SPCH 151			3
Total Semester Credits			**15**

Second Year

Fall Semester			**Semester Credits**
CIS	176	Web Development I/Dreamweaver	3
CIS	230	Video Graphics	3
CIS	272	Advanced Photoshop	3
Graphic Communications Elective			3
Humanities OR Social Service Elective			3
Human Well-Being Elective			2
Total Semester Credits			**17**

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Second Year

Spring Semester			**Semester Credits**
CIS	259	Current Web/Graphic Technology	3
CIS	273	Advanced Graphics & Animation	3
CIS	296	Web & Graphics Internship	3
Graphic Communications Elective			3
Humanities OR Social Service Elective			3
Human Well-Being Elective			1-3
Total Semester Credits			**16-18**

Total Program Credits **65-67**

Graphic Communications Electives			**Semester Credits**
ART	240	Digital Imaging	3
BUS	280	Intellectual Property Law	3
CIS	210	Web Design & Usability	3
CIS	299	Special Topics	3
MKT	226	Online Marketing	3
MKT	227	SEO & Web Analytics for Marketing	3

All students must complete graduation requirements listed in the front of the blue pages of this catalog for an Associate in Applied Science degree including the requirements for Human Relations course work.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Graphics Design (074A)

Students will learn the essentials of graphics design and publishing. Students will learn how to design all types of graphics and prepare them for print or Web applications. Key graphics publishing software will be used to design and create a variety of publications.

CIS	147	Fonts & Type	2
CIS	148	Document Management	1
CIS	168	Graphic Design **OR**	3
ART	111	Basic Design	
CIS	171	Computer Graphics	3
CIS	172	Photoshop	3
CIS	174	HTML	3
CIS	257	Electronic Publishing/InDesign	3
CIS	259	Current Web/Graphic Technology	3
CIS	272	Advanced Photoshop	3
Total Credits			**24**

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn a Graphic Communications Associate in Applied Science degree by completing at least 27 semester credits of program-related coursework.

A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

Graphic Communications graduates may find positions as:

- Graphic designer/artist
- Advertising designer/artist
- Art design worker
- Multi-media artist
- Media designer/artist
- Illustrator
- Animator
- Art director
- Creative director
- Production designer/artist
- Web designer

Health Information Technology

Coordinator/Faculty: ext. 5385

Faculty: Stacy Hairston

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Health Information Technology program prepares students to work as medical record/health information technicians. Health information technicians have a low level of direct patient contact. They ensure the quality of medical records/health information by verifying the completeness, accuracy and proper entry of patient information into computer systems. They use a universal coding system to assign diagnostic and procedural codes to each piece of patient information. They also use software applications to assemble and analyze patient data for the purpose of improving patient care or controlling costs.
They ensure the patient's interests in matters of privacy and security, information release and guidelines regarding record access. For further information regarding the field of Health Information Technology, refer to the American Health Information Management Association website at www.hicareers.com and/or www.ahima.org.

Contact an academic advisor to assist with career exploration.

About the Program

- Two-year degree, Associate in Applied Science degree
- Selective admission for fall semester start at the Belleville Campus
- Applications are accepted Sept. 1, 2016 to Feb. 1, 2017
- Completion of biology, algebra and keyboarding/typing in high school or college are required to apply
- Online application is available in the eSTORM Student Center

Licensure Requirements

Upon successful completion of the HIT curriculum, graduates are awarded an Associate in Applied Science degree in Health Information Technology and are eligible to take the American Health Information Management Association registration examination to become a Registered Health Information Technician. These examinations are offered throughout the year at various sites in the state and country.

Program Accreditation

The SWIC Health Information Technology program is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education. The program's curriculum is guided by the standards developed by the association. The accreditation status means SWIC has met the standards required and helps to assure the public that the curriculum will graduate competent clinicians. It also allows the college's HIT graduates to take the registry examination.

Admission Procedures/ Application Requirements

The admission procedures for the HIT program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. Students must apply and be formally accepted into the Health Information Technology program before enrolling in HIT-prefixed courses.

There are no waiting lists for admission to any Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the HIT Application Planning Guide for specific application requirements and to enhance your potential for admission to this program. Application Planning Guides are located at swic.edu/apply; the Academic Advising/ Counseling Departments, Enrollment Services or with the Health Science coordinators' assistant.**

Selection of Applicants for Admission

Selection of qualified applicants for the Health Information Technology program will be based upon a numerical ranking procedure, using ACT scores or SWIC GPA, high school and/ or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Health Information Technology program call or visit the Health Science coordinators' assistant at 618-235-2700, ext. 5355 or an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received. **In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of classes during the fall semester.** Contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advising/Counseling Department at 618-235-2700, ext. 5206, to obtain information of a possible application deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants who reside outside District No. 522 or in a district without a joint agreement for this program will not be eligible for consideration or admission. Resident status is determined by address on file with Enrollment Services by Feb. 1, 2017.

Program Capacity

The Health Information Technology program and Medical Billing & Coding program generally accept 24 students collectively.

Program Location

The Health Information Technology program consists of general education courses, HIT-prefix courses and assigned clinical experience courses. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses or online. They can be completed prior to program admission.
2. The HIT courses are only offered at the Belleville Campus during the day. Some courses may be delivered in an online or hybrid method.
3. The Professional Practice Experience coursework is completed at hospital/clinical facilities, health information-related vendors/companies or other applicable sites within the health care delivery system throughout southern Illinois or the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Specific Professional Practice Experience placement cannot be guaranteed.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and PPE(s) assigned by the program.

Orientation & Performance

Applicants accepted into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/hit-faq. Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Health Insurance

Health Insurance is required during PPE clinical courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical experience courses.

Medical/Health Requirements

HIT students will be required to show proof of immunizations, tuberculosis test, flu shot, physical examination and health insurance coverage before beginning any PPE/clinical experience course. These requirements do not have to be fulfilled until further explained at the program orientation meeting.

Background Checks and Drug Testing

Criminal background check, random drug test and name search on government registries which prohibit employment in health care professions are required prior to clinical experience courses. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibits the student from participation in the PPE portion of their program and will result in program dismissal:

Assault	Murder	Arson
Sexual offenses	Burglary	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Student will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Positive drug testing results from the use of illegal drugs or prescription medication the student does not have a prescription for in his/her name will also result in dismissal. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Program acceptance is contingent upon meeting deadlines for completion of the screening requirements and results which allow the student to participate in the clinical portion of the program. Program acceptance letters will include directions for accessing and purchasing the online screening for criminal background checks.

Graduation Requirements

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's HIT Student Handbook. Students who fail to meet program-specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding year.

A grade of C or better is required for all courses in the degree.

Course Sequence

The program can be completed in four semesters; however, it is recommended that students who work take General Education Courses (non-HIT-prefixed courses) prior to entrance into the program. These courses include: BIOL 157, ENG 101, approved electives**, BIOL 158, SPCH 151, PSYC 151, Human Relations Course*. See *Course Description Guide* (yellow pages of catalog) for the appropriate requisite. All HIT-prefixed courses must be completed before or during semesters indicated, unless permission is given by the program coordinator.

Associate in Applied Science Degree (0023)**

First Year

Fall Semester			**Semester Credits**
BIOL	157	Human Anatomy and Physiology I	5
ENG	101	Rhetoric & Composition I	3
HIT	101	Health Information Intro	2
HIT	110	Health Information Nomenclature I	2
HIT	130	Computer Applications for HIT	3
Human Relations course*			3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
BIOL	158	Human Anatomy and Physiology II	5
HIT	151	Pathophysiology	3
HIT	160	Health Data Management	2
HIT	170	Health Information Nomenclature II	2
SPCH	151	Fundamentals of Public Speaking	3
HIT	161	Microcomputer Applications in HIT	3
Total Semester Credits			**18**

Second Year

Fall semester			**Semester Credits**
PSYC	151	General Psychology	3
HIT	200	Health Care Delivery	4
HIT	220	Classification Systems I	4
HIT	230	PPE: Professional Practice I (summer/fall)	2
HIT	245	Pharmacology for the HIT (summer/fall)	2
HIT	210	Health Statistics	3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
HIT	250	Legal Aspects of HIT	2
HIT	260	PPE: Professional Practice II	3
HIT	270	Health Information Management	4
HIT	240	Classification Systems II	2
HIT	290	Health Information Capstone	1
HIT	280	Advanced Coding OR	
HIT	285	Advanced Data Analytics	3
Total Semester Credits			**15**

*See front of AAS degree pages for listing of all Human Relations Course options.

Career Opportunities

Although most HITs work in hospitals, there are also opportunities in office-based physician practices, nursing homes, home health agencies, mental health facilities, public health agencies, health information-related vendors/companies, and health information exchanges. Any organization that uses patient data or health information such as pharmaceutical companies, law and insurance firms, and health product vendors may employ health information professionals. Job opportunities in this field are good.

Average Starting Salary: The most recent AHIMA survey indicates the average annual salary across the nation is $55,676. Locally, HITs start at $27,000-$32,000 annually, depending on the size and location of the health care facility.

Heating, Ventilation, Air Conditioning and Refrigeration

Coordinator/Faculty: Keith Otten, ext. 7448/5175
email: keith.otten@swic.edu

Dean: Bradley Sparks

The SWIC Heating, Ventilation, Air Conditioning and Refrigeration program prepares students for careers in the HVAR industry. The industry is changing and trained personnel are in great demand.

Students may earn an Associate in Applied Science degree in HVAR or an HVAR Certificate. In addition to the AAS degree that can be earned at SWIC, students may continue their education at Ferris State University and earn an engineering degree in HVAR. The Capstone Program is another option available through Southern Illinois University Carbondale.

All students entering the AAS degree program are required to take an assessment placement test prior to entering the program.

Contact the program coordinator or academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0037)

First Year

Fall Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
HVAR	100	Fitting, Fusion and Fabrication	4
HVAR	101	Refrigeration & Air Conditioning Principles I	4
HVAR	103	Basic Electrical Controls & Systems	4
Human Relations Course			3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
GT	105	Introduction to Technical Math **OR**	4
MATH	112	College Algebra **OR** higher level Math	
HVAR	152	Advanced Refrigeration & A.C. Principles	4
HVAR	153	Heating Fundamentals	4
HVAR	201	Psychrometrics & Load Calculations	4
Total Semester Credits			**16**

Summer Semester			**Semester Credits**
HVAR	256	Advanced Elect. Controls & Systems*	4
HVAR	203	High Efficiency Heating Systems* **OR**	2
HVAR	280	Commercial Cooking Equipment I***	
Total Semester Credits			**6**

Second Year

Fall Semester			**Semester Credits**
HVAR	202	Commercial Refrigeration I	4
HVAR	208	Intro to HVAR Computer Applications	1.5
HVAR	211	Distribution Panels & Elect. Building Wiring	3
ENG	103	Technical Communication **OR** Communications Course	3
HES	151	Personal Health and Wellness **OR**	2
HES	152	First Aid-Medical Self-Help	
Humanities **AND/OR** Social Science Course			3
Total Semester Credits			**16.5**

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Spring Semester			**Semester Credits**
HVAR	251	Commercial Refrigeration II	4
HVAR	252	Air Conditioning and Htg Sys. Design	4
HVAR	253	Licensing & Certification Prep**	3
HVAR	258	Natl Electrical Code Interpretation	3
HVAR	260	Refrigerant Transition/Recovery Cert	.5
HVAR	262	Air Delivery Systems Materials & Methods	1
Total Semester Credits			**15.5**

Total Program Credits **72**

*HVAR 256 and HVAR 203 are only offered as summer courses.
**HVAR 253 is only offered in the spring semester.
***HVAR 280 is offered in the fall semester.

HVAR Certificate (0038)

HVAR	100	Fitting, Fusion and Fabrication	4
HVAR	101	Refrig & A.C. Principles I	4
HVAR	103	Basic Elect. Controls and Systems	4
HVAR	152	Advanced Refrig. & A.C. Principles	4
HVAR	153	Heating Fundamentals	4
HVAR	201	Psychrometrics & Load Calculations	4
HVAR	202	Commercial Refrigeration I	4
HVAR	203	High Efficiency Heating Systems** **OR**	2
HVAR	280	Commercial Cooking Equipment I***	
HVAR	251	Commercial Refrigeration II	4
HVAR	252	Air Conditioning & Heating Sys. Design	4
HVAR	256	Advanced Electrical Controls	4
HVAR	258	Natl Electrical Code Interpretation	3
HVAR	260	Refrigerant Transition/Recovery Cert	.5
Total Credits			**45.5**

Students wishing to transfer to Ferris State University must take PHYS 151 and MATH 112.

All students must complete graduation degree requirements listed in the front of the blue pages of this catalog for an Associate in Applied Science degree. Students in the degree program must satisfy the Illinois-mandated constitution requirement for the AAS degree.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Heating, Ventilation, Air Conditioning and Refrigeration program is prepared to work as a(n):

- Heating equipment technician
- Air conditioning and refrigeration technician
- HVAR equipment salesperson
- HVAC designer
- Commercial cook equipment repair person

All of the above careers could specialize in:

- Commercial applications
- Residential applications
- Design applications

Horticulture

Coordinator/Faculty: Kurt Range

Dean: Steve Holman

A career in horticulture provides opportunities for employment as a landscape designer; a golf course superintendent; grounds superintendent for a school, college, park, industrial complex or municipality; turf manager for construction contractor, country club or highway department; retail or wholesale greenhouse operator; floral designer; garden center manager and fruit/vegetable manager.

Students not able to perform the essential functions of the job of a horticulturist may not be able to pass the required courses.

All degree and certificate students must take assessment placement test before entering the program.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0005)

Courses common to all options

First Year

Fall Semester			**Semester Credits**
BIOL	101	Principles of Biology I **OR**	4
BIOL	151	Fundamental Botany	
ENG	101	Rhetoric & Composition I	3
HORT	102	Intro to Horticulture	3
HORT	132	Garden Center & Nursery Mgmt	4
HORT Option Courses and HORT Electives			2-3
Total Semester Credits			**16-17**

Spring Semester			**Semester Credits**
MGMT	102	Business Mathematics **OR**	3-4
ACCT	105	Basic Accounting Procedures **OR**	
ACCT	110	Financial Accounting	
HORT	152	Greenhouse Management	4
HORT	136	Identification & Use of Ornamentals	3
HORT Option Courses and HORT Electives			3-7
Total Semester Credits			**13-18**

Summer Semester			**Semester Credits**
HES	151	Personal Health and Wellness **OR**	2
HES	152	First Aid-Medical Self Help	
HORT	135	Turf Management	4
HORT	287	Supervised Intern Employment	2
Total Semester Credits			**8**

Second Year

Fall Semester			**Semester Credits**
HORT	215	Horticultural Diagnostics	3
HORT	288	Supervised Intern Employment	4
ENG	103	Technical Communication **OR**	3
Communications Elective			
HORT Option Courses and HORT Electives			6-7
Total Semester Credits			**16-17**

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Spring Semester			**Semester Credits**
HORT	226	Landscaping	3
HORT	298	Horticultural Project	2
Humanities **OR** Social Science Elective			3
HORT Option Courses and HORT Electives			5-6
Human Relations Elective			3
Total Semester Credits			**16-17**
Total Program Credits			**69-77**

Options available: please select one of the following options

General Horticulture

HORT	112	Media & Fertility	6
HORT	165	Floral Design	3
HORT	195	Indoor Plant Culture and Gardening	3
HORT	120	Container Gardening	2
HORT Electives			2

Turf Management

HORT	112	Media & Fertility	6
HORT	235	Advanced Turf Management	3
HORT Electives			7

Floral Design

HORT	165	Floral Design	3
HORT	168	Floral Shop Management	3
HORT	195	Indoor Plant Culture and Gardening	3
HORT	265	Advanced Floral Design	3
HORT	120	Container Gardening	2
HORT Electives			2

Nursery and Landscaping

HORT	112	Media & Fertility	6
HORT	228	Computer-Aided Landscaping	3
HORT	237	Arboriculture	3
HORT	275	Grounds Maintenance	4

Greenhouse

HORT	112	Media & Fertility	6
HORT	195	Indoor Plant Culture and Gardening	3
HORT	252	Advanced Greenhouse Management	3
HORT	120	Container Gardening	2
HORT Electives			2

Fruits and Vegetables

HORT	112	Media & Fertility	6
HORT	175	Home Gardening	3
HORT	242	Fruit Production	3
HORT	262	Small Fruit Production	2
HORT	280	Vegetable Gardening	2

Horticulture Certificate (0006)

This program is designed for students who want to acquire skills and knowledge to enter the horticultural business after approximately one year of college.

HORT	102	Intro to Horticulture	3
HORT	136	Identification & Use of Ornamentals	3
HORT	152	Greenhouse Management	4
ENG	101	Rhetoric & Composition I	3
HORT	112	Media & Fertility	6
Horticulture courses chosen from the two-year Associate in Applied Science degree program			9
Total Credits			**28**

Floral Design Certificate (006A)

ENG	101	Rhetoric & Composition I	3
MGMT	102	Business Mathematics **OR**	3
ACCT	105	Basic Accounting Procedures	
HORT	102	Intro to Horticulture	3
HORT	165	Floral Design	3
HORT	168	Floral Shop Management	3
HORT	195	Indoor Plant Culture and Gardening	3
HORT	265	Advanced Floral Design	3
HORT	120	Container Gardening	2
HORT Electives			5
Total Credits			**28**

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Horticulture program is prepared to work as a:

- Landscape designer
- Golf course superintendent
- Grounds superintendent for a school, college, park, industrial complex or municipality
- Turf manager for a construction contractor, country club, highway department, sod farm or landscape contractor
- Retail or wholesale greenhouse operator
- Floral designer
- Garden center manager
- Fruit and vegetable retail or wholesale manager

Human Services Technology

Coordinator/Faculty: Susan Holbrook

Dean: Richard Spencer

This program is designed for students as preparation for advanced study or employment in the human services profession. The Associate in Applied Science program prepares students for paraprofessional employment in the human services field. Students have the option of taking courses in a variety of areas or specializing in youth care, elder care, criminal justice social services or rehabilitation services.

Many of the courses in this program will also apply toward the first two years of a baccalaureate degree in social work or in a related human services field. Due to differences in four-year institutional program requirements, students are encouraged to consult the program coordinator or an academic advisor for transfer information.

For those already employed in the human services field, courses apply toward continuing education requirements.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0078)

First Year

Fall Semester			**Semester Credits**
BIOL	105	Human Biology	4
ENG	101	Rhetoric & Composition I	3
HMS	100	Introduction to Human Services	3
PSYC	151	General Psychology	3
SOC	153	Introductory Sociology	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
ENG	102	Rhetoric & Composition II	3
HMS	200	Human Services Applications	3
PHIL	152	Ethics	3
SOC	203	Social Problems	3
SPCH	155	Interpersonal Communication	3
HES	152	First Aid—Medical Self Help	2
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
HMS	250	Human Services Seminar	3
MGMT	102	Business Math	3
SOC	230	Race and Ethnicity **OR**	3
ECON	201	Principals of Economics I (Macro) **OR**	
LIT	215	Multicultural American Literature **OR**	
PSYC	295	Social Psychology **OR**	
SOC	255	The Family	
Approved Electives*			6
Total Semester Credits			**15**

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Spring Semester			**Semester Credits**
HMS	280	Human Services Practicum	4
POLS	150	Intro to American Government	3
SOC	265	Aging and Society	3
Approved Electives*			6
Total Semester Credits			**16**

Total Program Credits **64**

*** Recommended approved electives and areas of specialization**

Youth Care:

AOJ	153	Juvenile Delinquency
ECE	112	Growth and Development of Children
ECE	116	Children with Special Needs
PSYC	250	Child Development
PSYC	251	Adolescent Development
SOC	255	The Family

Elder Care:

HRO	150	Fundamentals of Nutrition
PSYC	210	Life Span Development
PSYC	253	Adult Development and Aging
PSYC	254	Death and Dying

Criminal Justice Social Services:

AOJ	100	Intro to Administration of Justice
AOJ	160	Criminology
AOJ	203	Criminal Law and Administration of Justice
AOJ	251	Rules of Criminal Evidence
SOC	210	Deviance, Crime and Society

Psychiatric Rehabilitation Certificate (078A):

This separate certificate prepares students for entry-level jobs in the mental health field.

Coursework includes the following required courses:

PRCP	151	Survey of Psychiatric Rehabilitation	3
PRCP	152	Psychiatric Rehabilitation Skills	3
PRCP	153	Health Skills for Psychiatric Rehabilitation	3
PRCP	154	Vocational & Community Living Skills	3
PRCP	155	Psychiatric Rehabilitation Practicum	4
Total Credits			**16**

Students may choose to complete a Psychiatric Rehabilitation Certificate while completing the Human Services Technology Associate in Applied Science degree program.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

The Associate in Applied Science program prepares students for employment as entry-level, paraprofessional human services workers. Human services workers are employed by public and private social service agencies and organizations in many specialized areas such as:

- Youth care
- Elder care
- Criminal justice
- Rehabilitation services

Industrial Maintenance Mechanics

Coordinator: Mark Bosworth, ext. 7457
email: mark.bosworth@swic.edu

Faculty: Lou Marino

Dean: Bradley Sparks

The Industrial Maintenance Mechanics program at SWIC prepares students with the skills and experience necessary to enter the workforce as an entry-level mechanic in an industrial facility. Students will learn multiple disciplines which include machining, pipefitting, mechanical, welding and electricity. Industrial maintenance mechanics maintain and repair a variety of equipment used in many different plants such as steel mills, oil refineries, power plants, and food and beverages industries. Because factories and other facilities cannot afford to have machinery out of service for long periods, industrial maintenance mechanics are there to keep the equipment maintained and running.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (053D)

Program Requisite			**Semester Credits**
PMT	100	Precision Machining Introduction	.5

First Year

Fall Semester			**Semester Credits**
PMT	101	Intro to the Machine Trades	4
PMT	102	Intermediate Machining	4
IML	119	Mechanical Systems	4
IDP	276	Industrial Hydraulics I	4
IML	120	Mechanical Blueprint Reading I	3
Total Semester Credits			**19.5**

Spring Semester			**Semester Credits**
IDP	116	Industrial Pipefitter A	4
EET	101	Intro to Electricity/Electronics	5
EET	241	Electrical Power, Motors and Controls	3
EET	243	NEC for Industrial/Commercial	3
Total Semester Credits			**15**

Summer Semester			**Semester Credits**
IML	125	Industrial Maintenance Welding	4

Second Year

Fall Semester			**Semester Credits**
EET	200	Digital Electronic Circuits I	3
EET	235	Programmable Logic Controllers	3
EET	239	Advanced PLCs	3
IML	133	Industrial Rigging	4
Total Semester Credits			**13**

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Spring Semester			**Semester Credits**
GT	104	Math for Electronics	4
HES	151	Personal Health and Wellness	2
ENG	101	Rhetoric & Composition I	3
Communications Course			3
Social Science Course			3
Human Relations Course			3
Total Semester Credits			**18**

Total Program Credits **69.5**

Certificate Programs

Industrial Maintenance Mechanics Certificate (054D)

			Semester Credits
IDP	116	Industrial Pipefitting A	4
IDP	276	Industrial Hydraulics I	4
IML	119	Mechanical Systems	4
IML	120	Mechanical Blueprint Reading I	3
IML	133	Industrial Rigging	4
IML	125	Industrial Maintenance Welding	4
EET	101	Intro to Electricity/Electronics	5
EET	243	NEC for Industrial/Commercial	3
EET	200	Digital Electronic Circuits I	3
EET	235	Programmable Logic Controllers	3
EET	239	Advanced PLCs	3
EET	241	Electrical Power, Motors and Controls	3
GT	104	Math for Electricity and Electronics	4
Total Credits			**47**

Stationary Engineering Certificate (054N)

Stationary Engineering is an important part of the industrial maintenance mechanics field. The student will study applications of low and high pressure boilers, steam engines, turbines, air compressors, pumps, components, other related equipment and technical diagrams that are used in industrial facilities. Students will apply this technical information provided to safely and efficiently perform tasks required to meet the various codes and regulations within specific fields and other related requirements pursuing proper licensure.

Fall Semester			**Semester Credits**
IML	150	Stationary Engineering I	4
IML	151	Stationary Engineering II	4

Spring Semester			**Semester Credits**
IML	250	Stationary Engineering III	4
IML	251	Stationary Engineering IV	4
Total Credits			**16**

Career Opportunities

The workforce for industrial maintenance mechanics is projected to grow 12 percent until 2016. Graduates will have opportunities in a wide variety of organizations from large oil refineries to smaller businesses. A graduate of the Industrial Maintenance Mechanics program is prepared to work as a(n):

- Plant maintenance mechanic
- Maintenance mechanic
- Machinery installer
- Repair technician
- Electrical repair technician

Management

Coordinator/Faculty: Sue Taylor, ext. 5434
Faculty: Tom Bilyeu

Dean: Janet Fontenot

The Management Associate in Applied Science degree program focuses on skills needed to develop and manage a small business. Since the mid-1990s, small businesses have created 65 percent of the net new jobs in the United States. While any business values employees with a wide variety of skills, small businesses, in particular, need people who understand the broad scope of the business.

The Management AAS curriculum includes accounting, marketing and management course work. Ethics and communications skills are emphasized as well. The program concludes with a capstone course, **MGMT 270 Business Planning**, in which students bring together their skills to create a business plan.

The courses required for the degree program are listed below. This is a sample schedule. Course availability will vary from semester to semester. Contact an academic advisor or the program coordinator for more information including the master course schedule. The schedule is also available on the degree program Web page: swic.edu/mgmt.

facebook.com/swic.aas.amm

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (049B)

First Year

Fall Semester			**Semester Credits**
BUS	101	Introduction to Business	3
MGMT	102	Business Mathematics	3
ACCT	110	Financial Accounting	4
MKT	126	Introduction to Marketing	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
ACCT	106	Introduction to Quickbooks	3
ACCT	111	Managerial Accounting	4
MKT	226	eMarketing	3
MGMT	219	Small Business Management	3
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
MGMT	213	Human Relations in the Workplace	3
MGMT	204	Entrepreneur Case Analysis	3
MGMT	241	Fundamentals of Finance	3
OAT	261	Business Communications	3
PSYC	151	General Psychology	3
ECON	201	Principles of Economics I (Macro)	3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
BUS	215	Business Law I	3
MGMT	217	Human Resource Management	3
MGMT	214	Principles of Management	3
MGMT	240	Ethics in the Workplace	1
MKT	242	Marketing Communications **OR**	3
MKT	243	Basic Selling Techniques **OR**	
MKT	228	Social Media Tools	
MGMT	270	Business Planning	3
Human Well-Being Elective			2
Total Semester Credits			**18**

Total Program Credits **68**

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Management by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Management (049C)

The Management certificate allows students outside of the business area to gain recognition for completing a core course of study in management. The certificate will benefit students in two-year, non-business programs as well as four-year students who wish to obtain a background in management.

MGMT	213	Human Relations in the Workplace	3
MGMT	214	Principles of Management	3
MGMT	217	Human Resource Management	3
MGMT	219	Small Business Management	3
MKT	126	Introduction to Marketing	3
MGMT	240	Ethics in the Workplace	1
Total Credits			**16**

Course availability varies from semester to semester. Ask an academic advisor or the Business Division for a master course schedule.

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A successful graduate of the Management AAS program is prepared to work in administrative and entry-level supervisory positions in a small business. Graduates with an interest in starting a business have the knowledge to prepare a detailed business plan. For more job market information, go to the Bureau of Labor Statistics website at www.bls.gov/oco/.

Phi Beta Lambda – Abe Small Chapter

Phi Beta Lambda is a nonprofit educational association of students preparing for careers in business. All students are welcome to join.

Contact the Business Division at 618-235-2700, ext. 5313, for more information.

Marketing

Coordinator/Faculty: Sue Taylor, ext. 5434
Faculty: Tom Bilyeu

Dean: Janet Fontenot

This program provides the academic background to begin a career in marketing. The Marketing Associate in Applied Science degree program prepares students for consumer and business product sales, retail sales management, merchandising and customer service careers. There is an emphasis on small business and on marketing in the online environment. Students with experience in an industry may qualify for marketing management positions upon graduation. Small business owners looking to groom employees for marketing positions may find the curriculum particularly useful.

The courses required for the Marketing degree are listed below. These are **sample** schedules and course availability will vary from semester to semester. Contact an academic advisor or the program coordinator for more information including the master course schedule. The schedule is also available on the degree program Web page: swic.edu/mkt.

facebook.com/swic.aas.amm

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0031)

First Year

Fall Semester			**Semester Credits**
BUS	101	Introduction to Business	3
CIS	155	Basic Web Page Design	1
ENG	101	Rhetoric & Composition I	3
MGMT	102	Business Mathematics	3
MKT	126	Introduction to Marketing	3
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
CIS	161	HTML Basics	1
CIS	172	Photoshop	3
MKT	226	eMarketing*	3
OAT	185	Database Applications	3
OAT	261	Business Communications	3
PSYC	151	General Psychology	3
Human Well-being			2
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
ACCT	105	Basic Accounting Procedures OR	3
ACCT	110	Financial Accounting	4
MGMT	213	Human Relations in the Workplace	3
MGMT	214	Principles of Management	3
MGMT	240	Ethics in the Workplace	1
MKT	242	Marketing Communications*	3
Humanities or Social Science Elective			3
Total Semester Credits			**16-17**

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Spring Semester			**Semester Credits**
BUS	215	Business Law I	3
ECON	201	Principles of Economics I (Macro)	3
MKT	227	SEO/Web Analytics for Marketing*	3
MKT	228	Social Media Tools*	3
MKT	229	Marketing Plans*	3
MKT	243	Basic Selling Techniques*	3
Total Semester Credits			**18**

Total Program Credits	**68-69**

*Denotes course available on limited schedule. Contact the Business Division or visit the program website for a master course schedule.

Internships

Internships can enhance a student's résumé, particularly if the student does not have experience in his or her chosen field of study. You do not need to be registered in a class to participate in an internship although some employers do require a course. This degree program does not require an internship but you can receive advice about finding a suitable internship by contacting the degree program coordinator. Students should have a minimum of nine semester credits of marketing coursework completed before beginning a marketing internship.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Marketing by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Certificate Programs

Marketing (031E)**

The Marketing certificate provides an opportunity for students to gain recognition for completing a core course of study in marketing. The certificate will benefit students in two-year, non-business programs as well as four-year students who wish to enhance their skillset with marketing coursework.

MGMT	240	Ethics in the Workplace	1
MKT	126	Introduction to Marketing	3
MKT	226	eMarketing*	3
MKT	227	SEO & Web Analytics for Marketing*	3
MKT	228	Social Media Tools*	3
MKT	229	Marketing Plans*	3
MKT	242	Marketing Communications	3
Total Credits			**19**

Digital Marketing (031F)**

This is an 11-semester-credit version of the 19-semester-credit Marketing certificate. It focuses on Web-based marketing. The certificate is designed for those students who want to update their marketing skills as well as small business owners who wish to expand their marketing efforts to the online arena.

CIS	155	Basic Web Page Design	1
CIS	161	HTML Basics	1
MKT	226	eMarketing*	3
MKT	227	SEO & Web Analytics for Marketing*	3
MKT	228	Social Media Tools*	3
Total Credits			**11**

*Denotes course available on limited schedule. Contact the Business Division or visit the program website for a master course schedule.
**Pending ICCB approval

There may be requisites for some courses. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A successful graduate of the Marketing program is prepared to work as a:

- Sales representative
- Merchandiser
- Customer service representative
- Retail manager
- Marketing professional in a small business

For more job market information, go to the Bureau of Labor Statistics website at www.bls.gov/oco/.

Phi Beta Lambda – Abe Small Chapter

Phi Beta Lambda is a nonprofit educational association of students preparing for careers in business. All students are welcome to join. Contact the Business Division at 618-235-2700, ext. 5313, for more information.

Massage Therapy

Coordinator: Tammy Bivin, 618-239-6400

Program Location:
The Body Therapy Center & School of Massage
4 Executive Woods Court
Swansea, IL 62226
618-239-6400
Owner & Director: Holly Pinto, BS, LMT, BCTMB

Dean: Julie Muertz

Career Overview

The Massage Therapy program is designed to provide students with a strong, comprehensive foundation for practice as a massage therapist. MTs are involved in "hands-on" care intended to promote healing, relieve stress, manage pain and improve circulation. They work by appointment and when self employed supply the tables, chairs, sheets, pillows, body lotions/oils, etc. needed for treatment. The massage therapist interviews and assesses each client to determine a treatment plan, which may include specialized massage techniques and complimentary techniques, such as spa treatments. Massage therapists establish clear boundaries with their clients to create a safe and effective healing environment. To develop and maintain a successful massage therapy practice, they also must have good communication skills, effective business practices, and an appreciation of the body, mind and spirit connection. For further information regarding the field of Massage Therapy, refer to the American Massage Therapy Association website at www.amtamassage.org, or the U.S. Department of Labor Outlook handbook at www.bls.gov/oco/.

Contact the program coordinator or an academic advisor for more information about enrolling into this program.

About the Program

- One-year certificate program or two-year Associate in Applied Science degree
- Fall and spring starts
- Reading and writing assessment test required, students must be eligible for ENG 101 and MATH 94
- MT courses are offered at The Body Therapy Center and School of Massage

Certification/Licensure Requirements

Upon successful completion of the one-year, 759-hour Massage Therapy curriculum, graduates are awarded a Massage Therapy Certificate and are eligible to take the national certification examination. The States of Illinois and Missouri require successful completion of the National Certification Examination or MBLEX state test in order to apply for licensure. In addition, students are required to submit to a criminal background check and provide verification of fingerprint processing by an approved agency. The laws regarding massage therapy practice vary from state to state; refer to the AMTA website for more information, www.amtamassage.org/about/lawstate.html.

Program Overview

The Massage Therapy Certificate program is a 37.5-semester-credit, one-year program, which can be completed in three semesters. Courses include MT technical courses and clinical experiences/practicums. The curriculum includes: anatomy, physiology and pathology, massage techniques, including Western and non-Western philosophies, kinesiology basics, client assessment, specific therapeutic massage applications and spa treatments. The curriculum also includes the professional standards, ethics, business and legal practices related to massage therapy. The MT certificate program begins each fall and spring semester at The Body Therapy Center and School of Massage LTD in Swansea, Illinois.

Clinical practicum courses are completed at The Body Therapy Center and School of Massage and at off-site locations for special events. Students may periodically be required to travel outside of the college district for clinical practicum. Clinical practice courses begin as early as the first semester of the program and continue every semester until program completion. Clinical practice is completed by scheduled client appointments and student's schedule. Hours may be completed during the day, evening and/or weekend.

Bridge Program for Physical Therapists and Physical Therapist Assistants

There is also an accelerated MT certificate for graduates of accredited physical therapist or physical therapist assistant programs which begins each summer semester. Students must demonstrate proof of a PT/PTA degree from an accredited school by submission of a college transcript or a current PT/PTA license. The accelerated MT certificate can be completed in six months. The summer semester requires classroom attendance one night per week and clinical practicum. The fall semester requires classroom attendance two nights per week and one weekend per month in addition to clinical practicum. All coursework of the MT curriculum has been approved by the IPTA for PT/PTA CEU credits.

Degree Option

The college also offers an Associate of Applied Science degree in Massage Therapy. The AAS in MT degree is a 69-semester-credit program, which can be completed in two years, including one summer. The associate degree includes general education courses to enhance skills in communication, social and behavioral sciences, information systems, and specialized areas of massage therapy practice.

Enrollment Procedures

The Massage Therapy program is open to any student who is a high school graduate or earned a high school equivalency certificate. To enroll, students must:

A. **Attend the new student orientation**. Orientation sessions are held at The Body Therapy Center, 4 Executive Woods, Swansea. At orientation, students will complete a SWIC registration form to enroll in classes. **Students may not register without the MT program coordinator's permission**.

B. **Complete a placement test**. Placement test results must qualify the student for enrollment in ENG 101 or greater and MATH 94 or greater. To schedule the assessment test, call or visit the Testing Center at the Belleville Campus 618-235-2700, ext. 5182; the Red Bud Campus, 618-282-6682, ext. 8114; or Sam Wolf Granite City Campus, 618-931-0600, ext. 7337.

General Information:

A. Coordinator permission is required before enrolling in the first semester of the MT program. Contact Tammy Bivin at 618-239-6400.

B. Students qualifying for enrollment must attend all required orientation sessions, meet program-specific medical requirements and must be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions of the job are listed in the MT Student Handbook and at swic.edu under MT program. Any interested students are encouraged to meet with the Disability & Access Center to discuss potential issues associated with meeting these requirements at 618-235-2700, ext. 5368.

C. Students should check the location and schedule of classes to ensure their own availability and access. Students are responsible for their own transportation and attendance at any of the classes and practicums assigned by the program.

D. The MT courses are offered at The Body Therapy Center and School of Massage, 4 Executive Woods Court, Swansea, IL 62226. Periodically some MT courses may be moved to the Belleville Campus as needed. General education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses.

E. Students that enroll in this the program must follow requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements as specified. Students are responsible for program policies as listed in each year's MT Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to enroll again the following semester/year. **All courses for the massage therapy certificate must be completed within a two-year period**.

F. Students will be required to complete a physical examination before beginning any clinical practicum.

G. The MT program begins each fall and spring semester. Classes are held in the evening for fall semester starts and in the morning for spring semester program starts. Twenty seats are available each fall and spring. All courses must be completed during the semesters indicated, unless permission is given by the program coordinator. A grade of C or better is required for all courses in the certificate.

H. All massage tables, chairs, pillows and supplies are provided by the school. Students are required to purchase their own sheets and pillow case(s). Attire for clinical practicum is black pants and solid color tops.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (027B) and Certificate (027A)

First Year
Massage Therapy Certificate (027A) is the fall/spring/summer course listing
First Year

Fall Semester			**Semester Credits**
MT	101	Therapeutic Massage I	5
MT	102	Body Structure and Function I	4
MT	160	Movement and Massage	5
MT	190	Clinical Practicum I	1
Total Semester Credits			**15**

Spring Semester			**Semester Credits**
MT	201	Therapeutic Massage II	5
MT	202	Body Structure and Function II	4
MT	203	Complimentary Techniques	5
MT	210	Introduction to NMT	1.5
MT	270	Clinical Practicum II	1
Total Semester Credits			**16.5**

Summer Semester			**Semester Credits**
MT	200	Business Practice in Massage Therapy	3
MT	220	Pathology for the Massage Therapist	2
MT	280	Clinical Practicum III	1
Total Semester Credits			**6**

Total Certificate Credits **37.5**

Second Year
Required for AAS (027B) degree completion

Fall Semester				**Semester Credits**
ENG	101	Rhetoric & Composition I		3
PSYC	151	General Psychology		3
OAT	146	Computer Applications for the Office	**OR**	3
OAT	130	Word Processing Basics **AND**		
OAT	131	Database Basics **AND**		
OAT	132	Electronic Spreadsheet		
HES	141	Yoga I **OR**		1
HES	145	Tai Chi		
Approved electives**				6.5
Total Semester Credits				**16.5**

Spring Semester			Semester Credits
SPCH	155	Interpersonal Communications	3
SOC	153	Introductory Sociology	3
MGMT	102	Business Mathematics	3
Approved electives**			6
Total Semester Credits			**15**

Total Program Credits	**69**

**Approved electives:			Semester Credits
MT	210	Introduction to NMT	1.5
MT	211	NMT for LE	1.5
MT	212	NMT for the Torso & Pelvis	1.5
MT	213	NMT for the Upper Extremity	1.5
MT	214	NMT for the Cervical Spine & Cranium	1.5
MT	230	Stretching-Neck & Shoulders	1.5
MT	240	Stretching: Hips & Back	1.5
MT	250	Stretching: Hands & Feet	1.5
MT	285	Biodynamic Cranio Sacral Therapy	2.5
MT	287	Wellness & Body Mechanics	1.5
MT	288	Fascial Anatomy	1.5
MKT	128	Marketing & Social Media	1

The college also offers an accelerated Massage Therapy Certificate opportunity for graduates of accredited physical therapist/physical therapist assistant programs. Interested students should contact the program coordinator for further information.

Speciality Certificate

Neuromuscular Therapy (027C)

Neuromuscular Therapy, American Version, is a treatment protocol for treating soft tissue and myofascial restrictions. It utilizes specific massage therapy techniques, stretching and home care to reduce/eliminate most neuromuscular pain patterns. These advanced massage techniques are used by licensed massage therapists, physical therapists and physical therapist assistants.

			Semester Credits
MT	210	Introduction to NMT	1.5
MT	211	NMT for the LE	1.5
MT	212	NMT for the Torso and Pelvis	1.5
MT	213	NMT for the Upper Extremity	1.5
MT	214	NMT for the Cervical Spine & Cranium	1.5
Total Semester Credits			**7.5**

Career Opportunities

A large percentage of massage therapists are self-employed, although other employment settings include chiropractic offices, health clubs/fitness centers, spas/salons, resorts, massage therapy clinics, sports medicine centers, hospitals, corporations and stress reduction centers. Approximately 60 percent of massage therapists work part time due to the physical demands of the occupation. Employment is expected to grow faster than average from 2004-2014 as more people learn about the benefits of massage.

Average Starting Salary: As an independent contractor new graduates earn $30-$50 per hour. Working for an hourly wage, such as at a clinic or spa, the earnings are generally $15-$25 per hour. A self-employed massage therapist with increased skill and a larger client base will have the highest earnings.

Medical Assistant

Coordinator/Faculty: Dana Woods, ext. 5332

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Medical Assistant program prepares graduates to provide both administrative and clinical services in a medical office. Medical assistants have a moderate level of patient contact. The specific duties of a medical assistant will vary depending on the legal requirements of the state and on the training, skill level and capabilities of the medical assistant. Administrative duties may include: managing the flow of patients in and out of the office, updating and filing medical records, filling out insurance information, arranging for hospital admission or laboratory services, and billing. Under the direct supervision of a licensed professional such as a physician, they also provide direct (hands-on) patient care procedures. These procedures may include: monitoring vital signs, explaining treatment procedures, preparing patients for examinations, sterilizing instruments and/or performing routine laboratory procedures and electrocardiograms. For further information regarding the field of a medical assistant, refer to the American Association of Medical Assistants website at www.aama-ntl.org. Contact an academic advisor to assist with career exploration.

About the Program

- Options: 10-month certificate or two-year Associate in Applied Science degree
- Selective admission for fall and spring admission at the Belleville Campus
- Applications accepted April 1 to June 1 for fall admission and May 1 to Aug. 1 for spring admission
- Proof of computer literacy OR completion of word processing, database basics and electronic spreadsheets in high school or college is required to apply
- Online application available in your eSTORM Student Center

Certification Requirements

Upon successful completion of the 10-month MA curriculum, graduates are awarded a Medical Assistant Certificate and are eligible to take the National Certification exam to become a certified medical assistant. Taking the certification exam is required for successful completion of this program.

Program Accreditation

The SWIC Medical Assistant Certificate program is accredited by the Commission of Accreditation of Allied Health Education Programs, website: www.caahep.org upon recommendation of the Medical Assisting Education Review Board. The program's curriculum is guided by the standards developed by the commission. Our accreditation status means SWIC has met the standards required of the profession and helps to assure the public that our curriculum will graduate competent clinicians. It also qualifies the college's MA graduates to sit for the MA certification examination.

Degree Option

The college also offers an Associate in Applied Science degree for medical assistants to enhance their skills in finance, management, communication and interpersonal relations. Completion of the degree often assists the MA in attaining a supervisory role in the medical office.

Admission Procedures/ Application Requirements

The admission procedures for the MA program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. The Medical Assistant's policy on transfer credit, advanced placement and experiential learning credit is consistent with the college's policy stated in the front of this catalog. There are no waiting lists for any Health Sciences programs. If not admitted, interested applicants must re-apply the following semester. **Refer to the MA Application Planning Guide for specific application requirements and to enhance your potential for admission into this competitive application process. Application Planning Guides are located at swic.edu/apply, any of the Academic Advising/Counseling Departments, Enrollment Services office, or with the Health Sciences coordinators' assistant.**

Selection of Applicants for Admission

Selection of qualified applicants for the Medical Assistant program will be based upon a numerical ranking procedure, using the SWIC Placement Test scores (reading, writing and math), Computer Literacy testing/college grades in computer courses, and the percentage of those general education courses required for completion of the MA degree completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Medical Assistant program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355, or an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received. **In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached at each of the campuses or until the first week of classes during the fall or spring semesters.** Contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advising/Counseling Department at 618-235-2700, ext. 5206, to obtain information of possible application deadline extensions. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants who reside outside District 522 or in a district that does not have a joint agreement with SWIC for this program, will not be eligible for consideration or admission if there are more applicants than positions to be filled. Residency status is determined by address on file with Enrollment Services by June 15, 2016 for the fall start and Sept. 1, 2016 for the spring admission.

Program Capacity

In the fall semester, the Medical Assistant program generally accepts 28 students at the Belleville Campus. In the spring, 15 students are accepted at the Belleville Campus.

Program Location

The Medical Assistant Certificate program consists of courses beginning with the prefix MA only, while the degree program consists of general education courses and MA-prefix courses. Both programs include clinical/practicum experience. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses.
2. The MA courses are only offered at the Belleville Campus during the day after acceptance into the program.
3. Clinical/Practicum experience is completed at clinical facilities throughout the district and in the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Specific clinical placement cannot be guaranteed.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Time Commitment

Students who enroll as full-time students will attend school four to five days per week through the 10-month program. If planning to attend part time, students must meet with the program coordinator to develop a schedule for program completion.

Although students may take up to three years to complete the program, it is STRONGLY discouraged as many students have difficulty retaining knowledge/skills of materials taught in earlier semesters.

Whether students attend full time or part time, all students must be available 30-40 hours per week to complete the clinical/practicum portion of the program which is a total of 200 hours of practical experience. Clinical practice/practicum begins after completion of all coursework. MAERB and CAAHEP have strict non-remuneration policy for practicum sites and students. Practicum sites cannot pay students for their time nor can students be provided with a travel allowance or a meal allowance or any other perk that involves the exchange of funds. All clinical experience must be completed to sit for the national certificate examination.

Orientation & Performance

Applicants accepted into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/ma-faq. Applicants or enrolled students are encouraged to contact the Disability & Access Center to discuss potential issues associated with meeting these requirements at 618-235-2700, ext. 5386.

Health Insurance

Health insurance is recommended during clinical education courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical experience.

Medical/Health Requirements

MA students will be required to possess current CPR certification at the Health Care Provider level and show proof of immunizations, tuberculosis test and physical examination before beginning any clinical practicum. These requirements do not have to be fulfilled until further explained at the program orientation meeting.

Background Checks and Drug Testing

A criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are required prior to clinical experience courses. Background checks are conducted from every state/county in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Murder	Arson
Sexual offenses	Burglary	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program including positive drug testing results from the use of illegal drugs or non-prescribed prescription medication. Dismissal for positive criminal background check, drug test, or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements:

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's MA Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding semester.

A grade of C or better is required for all courses in the degree.

All students completing an AAS degree must complete graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations coursework. Health requirements are satisfied by students successfully completing BIOL 105, PSYC 151 and this health science curriculum.

Important Information

The following semester sequence is designed as a guide for students enrolled full time. Students planning to attend part time must meet with the program coordinator to develop a schedule. Course requisites will affect course sequencing. Please refer to the *Course Description Guide* (yellow section) of this catalog for course requisites.

Associate in Applied Science Degree (0021) and Certificate (021A)

First Year

Medical Assistant Certificate (021A) is the fall/spring/summer course listing of the first year.

Fall Semester			**Semester Credits**
MA	130	Medical Office Clinical Procedures I	2
MA	140	Medical Office Procedures	3.5
MA	142	MA Automation I	1.5
MA	145	Medical Law & Ethics	2
MA	150	Medical Pathology I	3
MA	170	Medical Lab Orientation I	2.5
MA	181	Cardiopulmonary Procedures	2
Total Semester Credits			**16.5**

Spring Semester			**Semester Credits**
MA	135	Health Care & Patient Communications	2
MA	141	Medical Insurance & Coding	2
MA	143	MA Automation II	2
MA	151	Medical Pathology II	4
MA	171	Medical Lab Orientation II	2
MA	180	Medical Office Clinical Procedures II	2
MA	182	Pharmacology and Administration Techniques	4
Total Semester Credits			**18**

Summer Semester			**Semester Credits**
MA	195	Office Practicum	4

Second Year

Required for AAS (0021) degree completion:

Fall Semester			**Semester Credits**
ACCT	105	Basic Accounting Procedures **OR**	
ACCT	110	Financial Accounting	3
MGMT	214	Principles of Management	3
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology	3
BIOL	105	Human Biology	4
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
MGMT	213	Human Relations in the Workplace	3
MA	255	Medical Assistant Management Internship	3
SPCH	151	Fundamentals of Public Speaking **OR**	3
SPCH	155	Interpersonal Communication	
Human Relations Course*			3
Approved Electives***			2
Total Semester Credits			**14**
Total Program Credits			**68.5**

* See front of AAS blue pages for possible Human Relations Courses

***Approved Electives**

OAT	122	Word Processing Applications I
ECON	201	Principles of Economics I (Macro)
BUS	215	Business Law I
MLT	242	Phlebotomy Clinical
MA	243	Clinical Coding Practicum
MGMT	219	Small Business Management
OAT	131	Database Basics
OAT	132	Electronic Spreadsheet Basics
HRO	120	Pharmacology
HRO	150	Fundamentals of Nutrition
PSYC	200	Applied Psychology
SLS	100	Non-Verbal Communication
SLS	125	Fingerspelling & Numbers
SPAN	101	Elementary Spanish I

Career Opportunities

Medical assistants work in a wide range of medical facilities. Traditionally, they work in ambulatory care centers, urgent care facilities and physician's offices, medical assistants are now also finding employment in hospitals and inpatient/outpatient facilities. The cross-training of the medical assistant in administrative and clinical duties frequently makes the MA more marketable than individuals specializing in office management only. The Bureau of Labor Statistics projects medical assisting to be one of the fastest growing occupations for the 2008-2018 period.

Average Starting Salary:

Starting salaries are about $25,320 annually. Salaries vary depending on the facility, and the training and skills of the MA. **Certified medical assistants make approximately 5-10 percent more than non-certified MAs**.

Medical Billing & Coding

Coordinators: Dana Woods, ext. 5332
Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The Medical Billing & Coding program prepares graduates to submit claims to third parties in order to receive payment for services provided to a patient by a medical doctor or other licensed health care provider. Medical billers and coders have a low level of patient contact. To submit claims, the correct code must be utilized to identify to the third party the reason why a patient was seen and what services were performed so that the provider can get paid. Physicians depend on well-trained, reliable medical coding and billing staff for accurate insurance reimbursement of their services, or they might be charged large penalties due to improper coding. For further information regarding the field of medical billing and coding, refer to the American Academy of Professional Coders website at www.aapc.com. Contact a counselor to assist with career exploration.

About the Program

- Two-year degree, Associate in Applied Science
- Selective admission for fall semester start at the Belleville Campus
- Applications accepted from Sept. 1, 2016 to Feb. 1, 2017
- Online application is available your eSTORM Student Center

Certification Information

Upon successful completion of this four-semester program, graduates are awarded an Associate in Applied Science degree in Medical Billing & Coding and are eligible to take the Certified Professional Coder exam offered by the American Academy of Professional Coders or the Certified Coding Associate exam offered by the American Health Information Management Association. Although certification is not required to practice in medical billing and coding, it is strongly advised as many employers require it.

Admission Procedures/ Application Requirements

The admission procedures for the Medical Billing & Coding program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. There are no waiting lists for admission to any Health Science programs. If not admitted, interested applicants must re-apply the following year. Refer to the Medical Billing & Coding Application Planning Guide for specific application requirements and to enhance your potential for admission into this program. Application Guides are located at swic.edu/apply, the Academic Advising/Counseling Department and Enrollment Services office or with the Health Sciences coordinators' assistant.

Selection of Applicants for Admission

Selection of qualified applicants for the Medical Billing & Coding program will be based upon a numerical ranking procedure, using admission test scores, high school and/or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. Information on the application criteria is available from the SWIC Office of Enrollment Services. To obtain more information on the entrance requirements for the Medical Billing & Coding program, contact the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355 or an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received. In the event there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of Medical Billing & Coding classes during the fall semester. Contact Enrollment Services, 618-235-2700, ext. 5541/5542, or the Academic Advising/Counseling Department, 618-235-2700, ext. 5206, to obtain information of a possible application deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants residing outside District No. 522 or in a district that does not have a joint agreement with SWIC for this program will not be eligible for consideration or admission if there are more applicants than positions to be filled. Resident status is determined by address on file with Enrollment Services.

Program Capacity

The Medical Billing & Coding and HIT programs will collectively accept 24 students in the fall semester at the Belleville Campus.

Program Location

The program consists of general education courses, MA- and HIT-prefix courses and assigned externships and practicum courses. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses.
2. The HIT and MA courses are offered at the Belleville Campus during the day and the semesters indicated.
3. Externships and practicum courses are completed at hospital/clinical facilities throughout southern Illinois and in the St. Louis region. Students may be required to travel outside the college district for externship and practicum courses. Specific clinical placement cannot be guaranteed. Whether students are attending full time or part time, all students must be available 30-40 hours per week to complete the externship/practicum portion of the program which is a total of 220 hours of externship/practicum.

Orientation & Performance

Students who are accepted to enroll into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/bc-faq.

Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Background Checks and Drug Testing

A criminal background check, random drug test and name search on government registries which prohibit employment in health care professions are also required prior to clinical experience courses. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Murder	Arson
Sexual offenses	Burglary	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH.

Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sties will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees.

Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements

Students who are admitted to this program must follow the requirements for graduation at the time they are admitted and must meet all course, program and sequencing requirements specified. Students are responsible for program policies as listed in each year's Medical Billing & Coding Student Handbook. Students who fail to meet program-specific requirements will be dropped from the program. A grade of C or better is required for all courses in the degree.

Course Sequence

The following semester sequence is designed as a guide for students enrolled full time. Part-time students should take courses in progression following the appropriate course requisites. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All HIT- and MA-prefix courses must be completed before or during semesters indicated, unless permission is given by the program coordinator.

Medical Billing & Coding (0032)

First Year

Fall Semester			**Semester Credits**
BIOL	157	Human Anatomy & Physiology I	5
ENG	101	Rhetoric & Composition I	3
HIT	101	Health Information Intro	2
HIT	110	Health Information Nomenclature I	2
HIT	130	Computer Applications for HIT	3
Total Semester Credits			**15**

Spring Semester			**Semester Credits**
BIOL	158	Human Anatomy & Physiology II	5
HIT	151	Pathophysiology	3
HIT	160	Health Data Management	2
HIT	161	Microcomputer Applications in HIT	3
HIT	170	Health Information Nomenclature II	2
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**18**

Summer Semester			**Semester Credits**
MA	141	Medical Insurance & Coding	2
HIT	245	Pharmacology for the HIT	2
Total Semester Credits			**4**

Second Year

Fall Semester			**Semester Credits**
PSYC	151	General Psychology	3
HIT	200	Health Care Delivery	4
HIT	210	Health Care Statistics	3
HIT	220	Classification Systems I	4
MA	192	Administrative Internship	2
MA	143	MA Automation II	2
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
HIT	250	Legal Aspects of HI	2
HIT	260	PPE: Professional Practice II	3
HIT	270	Health Information Management	4
HIT	240	Classification Systems II	2
Human Relations Elective			3
Total Semester Credits			**14**

Total Program Credits **69**

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Career Opportunities

A variety of employers are seeking individuals trained in billing and coding: small and large group practices, dental offices, health clinics, hospitals, pharmacies, nursing homes, mental health care facilities, rehabilitation centers, insurance companies and health maintenance organizations. The U.S. Department of Labor projects that medical information and claims processing will continue to grow much faster than other occupations throughout the year 2018.

Average Starting Salary: Starting salaries are about $25,320 annually, salaries vary depending on the facility and the training and skills of the biller and coder. Certified professional coders make approximately 5-10 percent more than non-certified coders.

Medical Laboratory Technology

Coordinator/Faculty: Jean Deitz, ext. 5386

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Medical Laboratory Technology program prepares students with the entry-level skills necessary to become a medical laboratory technician. Medical lab technicians have a minimal level of patient contact, except when drawing blood. Laboratory technicians examine and process blood and other body fluids. They look for bacteria, parasites and other microorganisms; evaluate the chemical content of fluids; match blood for transfusions; and test for drug levels in the blood to show how a patient is responding to treatment. Technicians also prepare specimens for examination, count cells and look for abnormal cells in blood and body fluids. They use automated and computerized instruments, as well as microscopes, cell counters and other sophisticated laboratory equipment. For further information regarding the field of medical laboratory technology, refer to the American Society for Clinical Laboratory Science website at www.ascls.org/jobs/careers.asp.

About the Program

- Two-year, Associate in Applied Science degree
- Selective admission for fall semester start at the Belleville Campus
- Applications accepted Sept. 1, 2016 – Feb. 1, 2017
- Completion of biology, chemistry and algebra in high school or college is required to apply
- It is not necessary to complete general education courses (non-MLT prefixed) prior to application to the MLT program
- Meet with program coordinator to discuss application requirements
- Online application is available in eSTORM Student Center

Licensure Requirements

Upon successful completion of the MLT curriculum, graduates are awarded an Associate in Applied Science degree in Medical Laboratory Technology and are eligible to take a national Board of Certification examination. The American Society for Clinical Pathology offers national certification testing which earns technicians the title of certified medical laboratory technician. Regulations vary from state-to-state, but certification is highly recommended because employers require it within one year after graduation. It is called ASCP – BOC.

Program Accreditation

The SWIC Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, located at 5600 N. River Road, Suite 720, Rosemont, IL 60018, phone 773-714-8880 or visit website: www.naacls.org. The program's curriculum is guided by the standards developed by NAACLS. Our accreditation status means SWIC has met the standards required and helps to assure the public that our curriculum will graduate competent clinicians. It also allows the college's MLT graduates to take the national exam to certify that competency.

Admission Procedures/ Application Requirements

The admission procedures for the MLT program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. Students must apply and be formally accepted into the Medical Laboratory Technology program before enrolling in MLT-prefixed courses. There are no waiting lists for admission to any Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the MLT Application Planning Guide for specific application requirements and to enhance your potential for admission to this program. Application Planning Guides are located at swic.edu/apply, Academic Advising/Counseling Department, Enrollment Services or the coordinators' assistant's office. All applicants are strongly encouraged to make an appointment with MLT Coordinator Jean Deitz at 618-235-2700, ext. 5386.**

Selection of Applicants for Admission

Selection of qualified applicants for the Medical Laboratory Technology program will be based upon a numerical ranking procedure, using ACT/SAT scores, high school and/or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Medical Laboratory Technology program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355 or an academic advisor, call or visit: the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received. **In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of MLT classes during the fall semester**. Contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advisor/Counseling Department at 618-235-2700, ext. 5206, to obtain information of a possible application deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants residing outside District No. 522 or in a district that does not have a joint agreement with SWIC for this program, will not be eligible for consideration or admission if there are more applicants than positions to be filled. Resident status is determined by address on file with Enrollment Services by Feb. 1, 2017.

Program Capacity

The Medical Laboratory Technology program generally accepts 14 students each fall semester.

Program Location

The Medical Laboratory Technology program consists of general education courses, MLT-prefix courses and assigned clinical practice courses. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses and can be completed prior to admission, but **this is generally not indicated.** Discuss with an academic advisor or the MLT program coordinator.
2. The MLT courses are only offered at the Belleville Campus during the day of the semesters indicated on the degree outline after acceptance into program.
3. Clinical practice courses are completed at hospitals/clinical facilities throughout southern Illinois and in the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Specific clinical placement cannot be guaranteed.

   Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Orientation & Performance

Applicants accepted into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/mlt-faq. Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Health Insurance

Health insurance is required during clinical practice courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical practice.

Medical/Health Requirements

MLT students will be required to show proof of immunizations, tuberculosis test, physical examination and health insurance coverage and agree to cover costs before beginning any clinical practice course. These requirements do not have to be fulfilled prior to admission and are further explained at the program orientation meeting. The flu vaccine is required prior to clinicals.

Background Checks and Drug Testing

A criminal background check, random drug test and name search on government registries which prohibit employment in health care professions are also required. Program acceptance is contingent upon meeting deadlines for completion of the screening and results which allow the student to participate in the clinical portion of the program. Program acceptance letters will include details and directions for accessing and purchasing the online screening for background checks. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years.

Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Burglary	Sexual offenses
Murder	Arson	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical sites prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Positive drug testing results from the use of illegal drugs or prescription medication the student does not have a prescription for in his/her own name. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's MLT Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding year.

A grade of C or better is required for all courses in the degree.

All students completing an AAS degree must complete graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations course work. Health requirements are satisfied by students successfully completing BIOL 155 and 156 or BIOL 157 and 158, PSYC 151 and this health sciences curriculum.

For specific information concerning MLT program pass rate, degree completion, attrition rates, or job attainment/continuance of education, refer to swic.edu/mlt.faq.

Course Sequence

The program can be completed in four semesters and two summers. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All MLT-prefix courses must be completed before or during semesters indicated, unless permission is given by the program coordinator.

Associate in Applied Science Degree (0022)

First Year

Summer Semester			**Semester Credits**
MATH	112	College Algebra* **OR**	4
MATH	97	Intermediate Algebra ***	5
Total Semester Credits			**4-5**

Fall Semester			**Semester Credits**
BIOL	157	Human Anatomy and Physiology I	5
CHEM	105	General Chemistry I* **OR**	5
CHEM	101	Introductory Chemistry	
ENG	101	Rhetoric & Composition I	3
HRO	100	Medical Terminology	1
MLT	150	Introduction to Clinical Laboratory	2
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
BIOL	158	Human Anatomy and Physiology II	5
CHEM	106	General Chemistry II* **OR**	5
CHEM	103	Introductory Organic and Biological Chemistry	
MLT	250	Coagulation	2
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**15**

Summer Semester			**Semester Credits**
MLT	200	Hematology	4

Second Year

Fall Semester			**Semester Credits**
MLT	220	Serology	3
MLT	245	Clinical Practice I	3
MLT	260	Clinical Microscopy	3
MLT	270	Clinical Chemistry	4
Human Relations Elective**			3
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
MLT	210	Applied Clinical Microbiology	5
MLT	240	Immunohematology	4
MLT	275	Clinical Practice II	3
PSYC	151	General Psychology	3
Total Semester Credits			**15**
Total Program Credits			**70-71**

*Recommend enrolling in MATH 112, CHEM 105 and CHEM 106 if pursuing a bachelor's degree after completion of this AAS degree. MATH 112 is required if taking CHEM 105 and CHEM 106.

**See front pages of AAS degree requirements for the listing of Human Relations Elective options.

***MATH 97 is appropriate if completing CHEM 101 and CHEM 103, but does not transfer. CHEM 101 and 103 transfer as elective credit.

Career Opportunities

Nationally, about 50 percent of MLTs are employed in hospital laboratories; the remainder work in independent labs, physicians' offices, public health agencies, the federal government, pharmaceutical and industrial firms, research and educational institutions. Ninety-five percent of SWIC's Medical Laboratory Technology graduates are working in hospital medical laboratories. Job opportunities continue to grow as the elderly population continues to increase.

Average Starting Salary: Starting salaries average about $27,000-$31,200 annually. Salaries vary depending on the size and location of the health care facility. Salaries are higher when working on the second or third shifts.

Phlebotomy Certificate Program (021B)

This program provides training to beginning phlebotomy students. Students must complete all first semester courses; complete the SWIC Placement Test through the Testing Center; and place into ENG 101 and MATH 94 to enroll in MLT 100 Intro to Phlebotomy Procedures. MLT 100 will be completed in the first six weeks of the semester followed by MLT 242, Phlebotomy Clinical. The Phlebotomy Clinical requires 120 hours of supervised experience with placement dependent upon availability of clinical facilities. A criminal background check, random drug test and name search on government registries which prohibit employment in health care professions are also required prior to clinical experience. Payment for these checks and test are approximately $87, with an additional fee of $13 for states other than Missouri/Illinois in which the student has lived or worked. Students with positive results from either criminal background check, drug test or listing on prohibitory sites will be dismissed with no refund of tuition or lab fees. The flu vaccine, immunization record, and tuberculosis results are required prior to clinicals. **See the program coordinator or an academic advisor for more information.**

Those who successfully complete the following courses will be awarded a certificate of program proficiency. All courses require a grade of C or better.

First Semester			**Semester Credits**
HRO	100	Medical Terminology	1
CIS	120	Introduction to the PC **OR**	1
CIS	125	Operating Systems/PC (Microsoft Windows)	
Total Semester Credits			**2**

Second Semester			**Semester Credits**
MLT	100	Introduction to Phlebotomy Procedures *(First six weeks)*	2
MLT	242	Clinical Phlebotomy *(120 hr. clinical)*	3
Total Semester Credits			**5**

Career Opportunities

Completion of the Phlebotomy Certificate will prepare the graduate to work as a:

- Phlebotomist in a physician's office, hospital, clinic or independent laboratory

Music Technology

Department Chair/Faculty: Ed Jacobs, ext. 5354

Coordinator: Daniel Mehrmann

Faculty: Adam Hucke, Andrew Jensen D.M.A., Dan Mehrmann, Diana Umali

Dean: Richard Spencer

The Associate in Applied Science degree in Music Technology prepares students for a career in the audio production industry. Career choices range from working as an audio engineer in recording studios, radio or TV stations, or as a sound engineer in a variety of venues. The program includes coursework to develop skills in music, audio production, and business and marketing.

The courses required of all Associate in Applied Science degree students are outlined by year below.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science (0096)

Suggested Sequence

The classes are organized in the shown sequence to meet requisites.

First Year

Fall Semester			**Semester Credits**
MUS	150	Recording Engineer Musicianship I	3
MUS	154	Survey of Music Computer Technology	3
MUS	250	Basic Digital Recording Techniques	3
MUS	111	Class Instruction in Piano I	2
MUS	145	Recording Studio Orientation	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
MUS	151	Recording Engineer Musicianship II	3
MUS	155	Survey of Music Computer Technology II	3
MUS	251	Advanced Digital Recording	3
MUS	152	History of the Recording Industry	3
MUS	112	Class Instruction in Piano II	2
MUS	102	American Popular Music	3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
MUS	101	Music Appreciation **OR**	3
MUS	110	World Music	
MUS	252	Critical Listening for the Engineer	3
MUS	201	Business of Music	3
MUS	213	Class Instruction in Piano III **OR** Private Applied Music*	2
MKT	126	Intro to Marketing	3
Human Well-Being Elective			1-2
Total Semester Credits			**15-16**

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Spring Semester			**Semester Credits**
SPCH	151	Fundamentals of Public Speaking	3
MUS	214	Class Instruction in Piano IV **OR** Private Applied Music*	2
MGMT	219	Small Business Mgmt	3
MUS	255	Music Technology Practicum**	3
Human Well-Being Elective			1-2
Human Relations Elective			3
Total Semester Credits			**15-16**

Total Program Credits	**64-66**

*Students enrolling in Private Applied Music courses included in the Associate in Applied Science degree requirements would select the 100-level course numbers. However, if students wish to obtain permission to enroll in the 200-level applied courses, they would follow the same procedure as a student pursuing the AFA degree, i.e. audition and department signature. Students who choose to enroll in 100-level applied courses in lieu of Class Instruction Piano III and IV will be required to enroll in an additional class to make up the difference in semester credits. It is suggested that students enroll in a performing ensemble such as band or choir, or take another class that is applicable to the music technology field, such as voiceover or film classes.

**Students may elect to enroll in the Music Technology Practicum for up to six semester credits over the course of two semesters. Students must complete a minimum of 21 semester credits of Music courses as suggested in the sequence and have an interview with the coordinator to enroll in the practicum.

Recording Technology Certificate (0097)

Students who are interested in recording technology course work may receive the Recording Technology Certificate after completion of the following courses. The MUS 104 or a sufficient score on the Theory Assessment is still a requisite for MUS 250, and all other requisites apply.

MUS	145	Recording Studio Orientation	3
MUS	150	Recording Engineer Musicianship I	3
MUS	151	Recording Engineer Musicianship II	3
MUS	154	Survey of Music Computer Technology	3
MUS	155	Survey of Music Computer Technology II	3
MUS	250	Basic Digital Recording Techniques	3
MUS	251	Advanced Digital Recording	3
MUS	252	Critical Listening for the Engineer	3
Total Credits			**24**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

Completion of the Music Technology Certificate will prepare the graduate to work in the field of:

- Recording engineer
- Audio visual technician
- Music studio assistant
- Music business
- Music merchandising

Network Design and Administration

For more computer classes, see:
Computer Information Systems
Graphic Communications
Office Administration and Technology
Web Designer
Web Development and Administration

Coordinator/Faculty: Matt Swinford, ext. 7374
Faculty: Steve Bushong, Charles Hannon

Dean: Janet Fontenot

The SWIC Associate in Applied Science degree in Network Design and Administration is designed to prepare students with the necessary skills to obtain entry-level positions in the growing field of networking.

The core curriculum prepares students to successfully complete the Cisco Certified Entry Networking Technician, Cisco Certified Network Associate-Routing and Switching certification, CompTIA's Security+ certification and Microsoft's Windows Server Administration Fundamentals certification. Other professional certification target areas include CompTIA's A+ certification and the Cisco Certified Network Associate-Security certification from Cisco Systems Inc.

See the program coordinator or an academic advisor for more information. Students in the Network Design and Administration program must be able to perform technical functions as identified by the department.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0007)

First Year

Fall Semester			**Semester Credits**
NETW	101	Introduction to Networking	3
NETW	105	Data Assurance **OR**	
CISC	106	Introduction to Cybersecurity	1
CISC	151	Cisco Network Essentials	4
CISC	152	Cisco Routing and Switching	4
ENG	101	Rhetoric & Composition I	3
Human Well-Being Elective*			2
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
CISC	153	Cisco Scaling Networks	4
CISC	154	Cisco Connecting Networks	4
NETW	142	Network Design	3
Humanities **OR** Social Science Elective*			3
Communications Elective*			3
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
NETW	188	Windows Server I	3
NETW	151	Telecommunications **OR**	
CISC	241	Cisco Voice over IP	3
MATH	107	or higher	4
Approved Networking Electives			6-8
Total Semester Credits			**16-18**

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Spring Semester			**Semester Credits**
NETW	271	Network Security	3
NETW	295	Networking Internship	3
Humanities **OR** Social Science Elective*			3
Approved Networking Electives			6-8
Total Semester Credits			**15-17**

Total Program Credits **65-69**

Approved Networking Electives			**Semester Credits**
AOJ	258	Computer Forensics & Cyber Crime	3
CIS	179	Computer User Support	3
CISC	187	Cisco CCNA Exam Preparation	2
CISC	201	Cisco CCNA Security	4
CISC	221	Cisco Advanced Routing Configuration	4
CISC	223	Cisco Multilayer Switching	4
CISC	241	Cisco Voice over IP	3
EET	256	Preparation for A+ Certification	3
NETW	182	Linux Operating System	3
NETW	191	TCP/IP	3
NETW	211	Digital Forensics	3
NETW	261	Emerging Network Technologies	3
NETW	288	Windows Server II	3

*All students must complete graduation requirements listed in the front of the blue pages of this catalog for an Associated in Applied Science degree including the requirement for Human Relations coursework.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Network Design and Administration by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Network Design and Administration program is prepared to work as a(n):

- Account representative
- Computer repair technician
- Computer technician
- Engineer network installer
- Help desk technician
- Network communications
- Network technician
- Operations analyst
- Systems administrator
- Systems manager
- Assistant network manager
- Computer support specialist
- Email administrator
- Help desk specialist
- Network administrator
- Network support specialist
- Network troubleshooter
- Software engineer/support
- Systems engineer
- WAN/LAN manager

Certificate Programs

Network Associate Certificate (007A)

The Network Associate Certificate provides coursework for a range of networking subjects – from basics such as making cables and setting up simple networks, to the more complex concepts of IP addressing strategies and WAN technologies. Courses also include the topics of basic network design, network components and router configurations. Students will gain hands-on experience with network equipment – including routers and switches – as part of their education.

Four classes are required to achieve the Network Associate Certificate from SWIC. These courses also prepare the student for the Cisco Certified Network Associate certification exam through Cisco Systems Inc.

The *Course Description Guide* begins on page 246 and courses are listed alphabetically according to subject area.

CISC	151	Cisco Network Essentials	4
CISC	152	Cisco Routing and Switching	4
CISC	153	Cisco Scaling Networks	4
CISC	154	Cisco Connecting Networks	4
Total Credits			**16**

Career Opportunities

A student who completes the Network Associate Certificate at SWIC and obtains the CCNA professional certification is prepared to work as a:

- Network administrator
- Network specialist
- LAN/WAN engineer
- Computer support technician

Cybersecurity Specialist (007D)

The Cybersecurity Specialist certificate prepares students for the field of cybersecurity as it relates to securing information and communication systems to protect them from damage, exploitation, and unauthorized use or modification. Cybersecurity specialists plan, implement, upgrade, or monitor security measures to safeguard digital files and electronic infrastructure. The coursework includes the concepts, principles, methods, techniques, practices and procedures needed for a cybersecurity specialist.

Students who complete the Cybersecurity Specialist certificate will be prepared for the following professional certification exams: CompTIA Security+, Cisco Certified Network Associate – Routing and Switching, Cisco Certified Entry Networking Technician, Cisco Certified Network Associate – Security, Microsoft Technology Associate – Windows Server Administration Fundamentals and Microsoft Certified Professional – Windows Server 2008 Network Infrastructure, Configuring.

The *Course Description Guide* begins on page 246 and courses are listed alphabetically according to subject area.

Fall Semester			**Semester Credits**
CISC	151	Cisco Network Essentials	4
CISC	152	Cisco Routing and Switching	4
CISC	106	Introduction to Cybersecurity	1
NETW	188	Windows Server I	3
NETW	211	Digital Forensics	3
AOJ	258	Computer Forensics & Cyber Crime	3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
CISC	153	Cisco Scaling Networks	4
CISC	154	Cisco Connecting Networks	4
CISC	201	Cisco CCNA Security	4
NETW	271	Network Security	3
NETW	288	Windows Server II	3
Total Semester Credits			**18**

Total Credits	**36**

Career Opportunities

A student who completes the Cybersecurity Specialist certificate is prepared to work as a(n):

- Information security analyst
- Firewall specialist
- Network security specialist
- Security administrator
- VPN specialist
- Data assurance specialist

Nurse Assistant

Coordinators: Stephanie Reid, ext. 5906
& Carol Eckert, ext. 5268

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

This one-semester certificate course, HRO 105 Nurse Assistant, prepares students to perform simple and basic functions under the supervision of a nurse and to apply for the certified nurse assistant competency test. The program's purpose is to provide the health care community with knowledgeable, skilled nurse assistants who recognize that the patient/resident/client is a unique individual with needs and rights deserving of holistic care.

Enrollment Requirements:
Students must complete the SWIC Placement Test to assess reading, writing and math skills. Students must test high enough to be eligible for ENG 92 or greater to enroll. To obtain more information on the SWIC Placement Test, call or visit the Testing Center at the Belleville Campus, 618-235-2700, ext. 5182; the Red Bud Campus, 618-282-6682, ext. 8114; or Sam Wolf Granite City Campus, 618-931-0600, ext. 7337.

Students enrolling in the seven-semester credit HRO 105 Nurse Assistant course should be aware that criminal background checks are required. The first scheduled day of the Nurse Assistant course is a mandatory orientation at the Belleville Campus. Students in all course sections are required to complete the Illinois Department of Professional Regulation paperwork for the mandatory criminal background check and to review program requirements. The fingerprint checks are conducted on the second day of the course schedule and the course content will begin once all the fingerprints are completed. Please check the schedule closely so you do not miss a required meeting, locations vary. Absence to any of these sessions will result in course dismissal. Students must pass the background check in order to remain in the course, be eligible to take the certification exam and to become employed as a certified nurse assistant. Students with disqualifying convictions will be dropped unless they have an Illinois Department of Public Health waiver.

Refer to www.idph.state.il.us/nar/disconvictions.htm or swic.edu/cna for the list of disqualifying convictions.

Contact the program coordinator or the coordinators' assistant for more information. A physical exam and immunizations are required. Essential functions of the student nurse assistant as listed in the NA Handbook must be met. Students enrolling in all Health Sciences programs should be aware that some clinical facilities may require auto and/or health insurance. Malpractice insurance, when required, is provided by the college through assessment of lab fees. Some clinical sites may require drug testing. This information will be provided in the first class. Students must meet any requirements of the clinical sites or may be dropped from the program.

Nurse Assistant (025A) – Attendance Policy

Students enrolled in the HRO 105 Nurse Assistant course are subject to all of the provisions of the existing college catalog and IDPH program requirements with respect to attendance during the period of their enrollment. Attendance to all class and clinical sessions is required. Students missing the first day of class (mandatory orientation) and exceeding IDPH allowance, will be dropped and will not qualify for a full refund of tuition/fees. Any missed time is cumulative. Failure to meet attendance requirements will result in dismissal/withdrawal from the course.

Career Opportunities

Following course completion and successful passage of the competency exam, graduates may be employed in acute, long-term care and home health to provide personal care under the direction of an registered nurse or licensed practical nurse.

Nursing Education

Director: Carol Eckert, ext. 5268

Faculty: Liz Alvarez, Jill Bingheim, Gary Gardner, Kim Keel, Lyn Martin, Jane Ohl, Beth Raftopoulos, Susan Wessel, Colleen White, Cynthia Winfield

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Nursing Education program prepares students with the basic skills necessary to become a registered nurse. RNs provide for the physical, mental and emotional needs of their patients. Nurses must have good knowledge of the principles and practices of nursing, interpersonal skills, oral and written communication skills, ability to relate to different cultural and economic backgrounds and organizational skills. They must also be able to set priorities and manage a caseload.

Nursing encompasses a variety of specialties: case manager, emergency/trauma, home health/hospice, infection control/employee health, labor & delivery, medical/surgical, neonatal, pediatric, psychiatric, telemetry, transplant, etc. The job duties vary based on the working environment and the role of the nurse in that setting. For further information regarding the field of nursing, contact the National League for Nursing at www.nln.org/careers/resources.htm.

In accordance with the Illinois Nursing and Advanced Practice Nursing Act, 2007, the purpose of the Nursing Education curriculum at SWIC is to prepare students to:

1. Apply for the NCLEX-RN exam after successful completion of the program and to apply for licensure as registered professional nurses after successfully completing the NCLEX-RN.
2. Practice entry-level professional nursing only under the direct supervision of the registered professional nurse until item 1 has been accomplished.
3. Practice professional nursing at a beginning staff level after successfully completing the NCLEX-RN and receiving licensure as a registered professional nurse.

Contact an academic advisor to assist with career exploration.

SWIC 2+2 Agreement

SWIC and the Chamberlain College of Nursing have a 2+2 Agreement for nursing majors (ASN to BSN).

About the Program

- Two-year, Associate in Applied Science degree
- Selective admission for summer semester start
- Applications are accepted Sept. 1 to Dec. 1, 2016
- Completion of biology, chemistry and algebra in high school or college is required to apply
- Supporting documentation deadline is Feb. 1, 2017
- Advanced placement for LPNs available
- Online application located in your eSTORM Student Center

Licensure Requirements

Upon successful completion of the 70-semester-credit Nursing Education program with a C or better in all courses, graduates are awarded an Associate in Applied Science degree in Nursing Education and are eligible to take the computer adaptive NCLEX-RN exam. To practice as a registered nurse, graduates must pass the NCLEX-RN examination.

Program Accreditation

The SWIC Nursing Education program is a member of the National League for Nursing Council of Associate degree Nursing Programs and is approved by the Illinois Department of Financial and Professional Regulation, located at 100 W. Randolph, Suite 9-300, Chicago, IL 60601, 312-814-4500; and accredited by the Accreditation Commission for Education in Nursing located at 3303 Peachtree Road NE, Suite 850, Atlanta, GA 30326.

Admission Procedures/ Application Requirements

The admission procedures for the NE program are in accordance with Illinois law. The law requires programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. Students must apply and be formally accepted into the Nursing Education program before enrolling in NE-prefix courses. There are no waiting lists for admission to any Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the Nursing Education or Advanced Standing Nursing Application Planning Guides for specific application requirements to enhance your potential for admission into this highly competitive application process. Application Planning Guides are located at swic.edu/apply, in the Academic Advising/Counseling Department, Enrollment Services, or the Health Sciences coordinators' assistant's office**

Selection of Applicants for Admission

Selection of qualified applicants will be based upon a numerical ranking procedure, using admission test scores, high school and/or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. **Applicants should be aware that general education courses completed in the spring preceding potential summer entry will not be calculated in the numerical ranking unless there are fewer applicants than seats available.** To obtain more information on the program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355; or with an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received (typically in April). In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity

has been reached or until the first week of classes during the summer semester. Contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advising/Counseling Department at 618-235-2700, ext. 5206, to obtain information of a possible applications deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants residing outside District No. 522 or in a district that does not have a joint agreement with SWIC for this program, **will not be eligible for consideration or admission**. Resident status is determined by address on file with Enrollment Services by Feb. 1, 2017.

LPN Articulation Application Process

An articulation process exists for Illinois licensed LPNs. The articulation program will escrow up to 15 credits, which will include the three credits for NE 100 Clinical Calculations. Admission criteria will remain as listed for the generic RN program. LPNs must complete the requisite courses and first year general education courses prior to beginning the articulation program, unless waivers have been secured from the NE director. Escrowed credits will be awarded pending successful completion of both NE courses attempted in the summer. If not successfully completed, on the first attempt, no articulation provisions will apply and the generic nursing program must be completed. Any LPN may opt not to enter the articulation program – but enter the generic RN program. LPNs submit the application – "Advanced Standing Nursing Education for current LPNs."

Nurse Assistant Articulation Application Process

An articulation process exists for certified Illinois nurse assistants. The articulation process will escrow two NE credits for Illinois certified nurse assistants. Admission criteria, requisite courses and general education courses will remain as listed for the generic RN program. NE 100 must be completed successfully in the summer before entry into fall classes. The two credits will be awarded for NE 102, pending successful completion of NE 103 on the first attempt. If NE 103 is not completed successfully, no articulation provisions will apply. Any certified nurse assistant may opt not to enter the articulation program – but to enter the generic RN program.

Transfer Students

Transfer credit may be obtained by transfer from accredited/approved nursing programs provided program content and sequence are the same. Nursing courses over three years old will not be accepted for transfer. Transfer students must provide a letter from the previous nursing program administrator who must confirm that the student is considered to be "in good standing." "In good standing" means that the NE student could re-enroll in this NE program, if desired, without additional measures. Should transfer students not be confirmed in good standing by the documentation, the student (if accepted) will be considered to have had one course failure and only one course failure will be allowed. Program failures will be considered one course failure in the SWIC program. Transfer students should see the Nursing Education director for more information.

Program Capacity

The Nursing Education program generally accepts approximately 80-90 students each summer semester at the Belleville Campus, depending on clinical availability.

Program Location

The Nursing Education program consists of general education courses, NE-prefix courses and assigned clinical experience. Specific locations depend on the course.

1. The general education courses can be completed prior to admission at the Belleville, Red Bud or Sam Wolf Granite City campuses or online.
2. The NE courses are only offered at the Belleville Campus during the day of the semesters indicated on the degree outline after acceptance into program.
3. Clinical experiences may be scheduled during the day, evening and/or weekends at hospitals/clinics located throughout southern Illinois and in the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Specific clinical placement cannot be guaranteed, and specific clinical schedules may be changed during courses.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Orientation & Performance

Applicants accepted into this program must attend the two required orientation sessions, held in April/May and July, meet program-specific medical requirements, be able to perform the essential functions of the job as listed in the Student Handbook or at swic.edu/ne-faq with reasonable accommodation if needed, and submit results of background check, drug screen, physical examination and the required immunizations by the required date as presented in orientation sessions. Any applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements. Students not able to perform the essential element of the job of a nurse may be unable to pass the required courses. Other program-specific restrictions may apply.

NE 100 – Nursing Calculations

Applicants selected for admission take NE 100 Clinical Calculations in the summer following admission to the NE program. This course must be successfully completed before fall classes begin. Students may take a NE 100 Proficiency Test after acceptance into the Nursing Education program, and waive the requirement to take the NE 100 course. Information concerning the course, as well as the proficiency test, will be presented at the first orientation session held for entering students. For further information, contact Nursing Education director at 618-235-2700, ext. 5268.

Medical Terminology

Medical Terminology – one semester of college or a high school dual credit course – either HRO 100, one credit, or HRO 160, three credits, is required. The class may be taken in the summer following admission. This class can be waived after acceptance into the Nursing Education program, following successful testing. Information will be presented during the first orientation session held for entering students.

Health Insurance

Health insurance is required during clinical Nursing Education courses. Students are personally responsible for any costs incurred for injuries occurring during clinical experience in their role as student nurses.

Medical/Health Requirements

NE students will be required to possess and maintain current CPR certification at the Health Care Provider level and show proof of immunizations, tuberculosis test and physical examination before beginning any clinical experience. These requirements do not have to be fulfilled until after the program orientation meetings, but must be fulfilled by the required deadline.

Background Checks and Drug Testing

The criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are required. Program acceptance is contingent upon meeting deadlines for completion of the screening and results which allows the student to participate in the clinical portion of the program. Program acceptance letters will include details and directions for accessing and purchasing the online screening for background checks. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Murder	Arson
Sexual offenses	Burglary	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH or request online at the IDPH website. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. Without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program including positive drug testing results from the use of illegal drugs or prescription medications the student does not have a prescription for in his/her name. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the coordinators' assistant prior to seeking admission.

Students enrolling in Nursing Education should be aware that fingerprint criminal background checks will also be required within 60 days of NCLEX-RN application. Convictions of certain crimes may preclude ability to obtain RN licensure in Illinois. Information will be provided concerning this stipulation.

Graduation Requirements

Applicants admitted to the program must follow course requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Posted changes in course requisites are applicable to all newly admitted students. Second-year students will continue to work from requisites listed when admitted. Students are responsible for program policies as listed in each year's Nursing Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding year.

The Nursing Education program must be completed within five years of the beginning of the nursing courses for the first time and five semesters for LPN articulation students. Students must repeat a failed course as soon as it is offered, i.e., students cannot "sit out" the following year. An average grade of C (76 percent without rounding) in all theory testing is required to take the final exam; the final exam must be completed with a C or higher; and a satisfactory in lab/clinical evaluation are the minimum requirements for passing nursing courses. Any standardized testing and course assignments must be completed by course ending date. A grade of C is the minimum grade acceptable for ALL courses in the nursing curriculum. Please refer to the current Nursing Student Handbook for most recent program policies.

All students completing an AAS degree must complete graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations course work. Health requirements are satisfied by students successfully completing BIOL 157 and 158, PSYC 151 and this health sciences curriculum.

Course Sequence

The program can be completed in four semesters and one summer; however, it is recommended that students who wish to maximize points on the application complete General Education Courses (HRO 100/160, HRO 150, BIOL 157 & 158, SOC 153, ENG 101 & 102, PSYC 151, and electives, refer to swic.edu/ne-ge) prior to entrance into the program and in progression following the appropriate course requisites. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All NE-prefix courses must be completed before or during the listed semesters, unless permission is given by the Nursing Education director.

Associate in Applied Science Degree (0025)

First Year

Fall Semester			**Semester Credits**
BIOL	157	Human Anatomy and Physiology I	5
SOC	153	Introductory Sociology	3
HRO	150	Fundamentals of Nutrition**	2
NE	102	Introduction to Nursing Procedures*/**	2
NE	103	Introduction to Nursing**	4
NE	104	Health Continuum I**	2
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
BIOL	158	Human Anatomy and Physiology II	5
ENG	101	Rhetoric & Composition I	3
NE	105	Health Continuum II	2
NE	106	Health Continuum III	4
NE	108	Interference with Basic Human Needs I**	4
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
ENG	102	Rhetoric & Composition II	3
PSYC	151	General Psychology	3
NE	207	Interference with Basic Human Needs II	5.5
NE	209	Interference with Basic Human Needs III	5.5
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
NE	210	Interference with Basic Human Needs IV	5.5
NE	211	Interference with Basic Human Needs V	5.5
Elective	100 or 200 level***		3
Elective	200 level***		3
Total Semester Credits			**17**

Total Program Credits	**70**

All students must complete graduation requirements in the front of the blue pages in this catalog for an Associate in Applied Science degree.

*May be escrowed for CNAs.

**May be escrowed for LPNs after transcript review.

***100 or 200 level electives. A list of approved electives is available at swic.edu/ne-ge. Additional courses may be approved by the NE director at 618-235-2700, ext. 5268.

Career Opportunities

A graduate of the Nursing Education program is prepared to work as a registered nurse following successful NCLEX-RN exam in general entry-level positions under the direction of a more experienced RN. Entry-level positions may be found in hospitals, public/community health settings, ambulatory care settings and nursing homes/extended care facilities.

Graduates who successfully pass NCLEX-RN may also opt to continue their education at institutions which offer RN-Bachelor of Science in Nursing and RN-Master of Science in Nursing programs. Information on RN-BSN articulation/dual enrollment is available in the Nursing Education office.

Articulation pathways to BSN and MSN programs are available through several institutions: Goldfarb School of Nursing, Southern Illinois University-Edwardsville, St. John's in Springfield, Lindenwood University, Central Methodist University, Chamberlain, and others.

Dual admission with McKendree allows students to transfer seamlessly from the Nursing Education program to the RN-BSN program at McKendree. Information will be presented at orientation.

Average Starting Salary: The average full-time starting salary is $25.98 per hour or $54,000 per year.

Office Administration and Technology

For more computer classes, see:
Computer Information Systems
Graphic Communications
Network Design and Administration
Web Designer
Web Development and Administration

Coordinator/Faculty: Tina Dierkes, ext. 5321

Faculty: Karla Brown, Mary Lutz

Dean: Janet Fontenot

The Office Administration and Technology program can prepare students for a variety of office support careers in business, education or government. Program options blend traditional office administration skills such as filing, scheduling and organizing, with current computer technology and applications including word processing, electronic spreadsheets, database management and presentation graphics.

SWIC offers Associate in Applied Science degrees in Office Administration and Office Technology Specialist. Certificate options are available if you need training to enter the workforce or wish to enhance your employment skills. Certificate options include: Administrative Office Support, Microsoft Office Specialist, Office Support Technology, Office Technology Assistant I, Office Technology Assistant II and Virtual Assistant.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Office Administration
Associate in Applied Science Degree (032A)

First Year

Fall Semester			**Semester Credits**
OAT	121	Introduction to Office Support	3
OAT	171	Document Processing/Input Technology	3
OAT	180	Word Processing	3
BUS	101	Introduction to Business	3
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology **OR**	3
SOC	153	Introductory Sociology	
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
ACCT	105	Basic Accounting Procedures **OR**	3
ACCT	110	Financial Accounting**	4
OAT	172	Advanced Information Processing	3
OAT	155	Software Computations	3
Human Well Being Elective			2
OAT	156	Microsoft Office Suite I	3
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**17-18**

Second Year

Fall Semester			**Semester Credits**
OAT	285	Microsoft Office Suite II	3
OAT	261	Business Communications	3
OAT	169	Automated Application/Transcription	3
OAT	276	Current Technology for Office Support	3
OAT Sub Plan Options			5-6
Total Semester Credits			**17-18**

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Spring Semester			**Semester Credits**
OAT	260	Administrative Office Procedures	3
OAT	293	Office Admin. & Technology Intern	3
OAT	175	Electronic Spreadsheet	3
ECON	201	Principles of Economics I (Macro)	3
OAT Sub Plan Options			3
Total Semester Credits			**15**

Total Program Credits **67-69**

Sub Plans Available – please select one of the following:

Administrative Assistant

OAT	256	Office Management	3
OAT	280	Virtual Office Technologies	3
ACCT	106	Introduction to QuickBooks	3

Accounting Office Specialist

OAT	256	Office Management	3
ACCT	111	Managerial Accounting	3
ACCT	106	Introduction to QuickBooks	3

Legal Office Specialist

OAT	275	Law Office Management	3
PARL	120	Introduction to Paralegal Studies **OR**	3
BUS	215	Business Law I	
OAT	274	Law Office Computer Applications	3

Medical Office Specialist

OAT	256	Office Management	3
HRO	100	Medical Terminology	1
BIOL	101	Principles of Biology I **OR**	4
BIOL	105	Human Biology	

**Accounting Office Specialist options MUST take ACCT 110

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Office Administration program (032A) is prepared to work as a(n):

- Administrative assistant
- Office assistant
- Word/information processor
- Secretary

Accelerated Degree Option

Anyone who has completed an associate or higher degree from a regionally accredited college may earn an Associate in Applied Science degree in Office Administration and Technology by completing at least 27 semester credits of program-related course work. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Office Technology Specialist Associate in Applied Science Degree (0069)

First Year

Fall Semester			**Semester Credits**
OAT	121	Introduction to Office Support	3
OAT	171	Document Processing/Input Technology	3
OAT	180	Word Processing	3
BUS	101	Introduction to Business	3
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology **OR**	3
SOC	153	Introductory Sociology	3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
OAT	172	Advanced Information Processing	3
SPCH	151	Fundamentals of Public Speaking	3
Human Well-Being Elective			2
OAT	165	Presentation Graphics	2
OAT	175	Electronic Spreadsheet	3
ECON	201	Principles of Economics I-Macro	3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
OAT	185	Database Applications	3
OAT	261	Business Communications	3
OAT	256	Office Management	3
OAT	169	Automated Application/Transcription	3
OAT	276	Current Technology for Office Support	3
OAT	225	Advanced Word Processing	3
Total Semester Credits			**18**

Apply for Graduation Now

Spring Semester			**Semester Credits**
OAT	260	Administrative Office Procedures	3
OAT	293	Office Admin. & Technology Intern	3
OAT	190	Web Design with Microsoft Office	3
OAT	230	Advanced Electronic Spreadsheet	3
CIS	164	Internet Essentials	3
Total Semester Credits			**15**

Total Program Credits **67**

Certificate Programs

Office Technology Assistant I (033A)

This certificate is designed to prepare individuals with little or no prior office experience to perform a variety of tasks, including computer tasks, in a general office environment. This program emphasizes word processing and related office skills for entry-level positions.

			Semester Credits
OAT	121	Introduction to Office Support	3
OAT	171	Document Processing/Input Technology	3
OAT	180	Word Processing	3
OAT	156	Microsoft Office Suite I	3
ENG	101	Rhetoric & Composition I	3
MGMT	102	Business Mathematics	3
Total Semester Credits			**18**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Office Technology Assistant II (0033)

This certificate is a continuation of Office Technology Assistant I. It is designed to give students additional skills. Upon completion of the certificate, a student may continue in one of the OAT degree programs.

Office Technology Assistant certificate plus:

			Semester Credits
BUS	101	Introduction to Business	3
OAT	172	Advanced Information Processing	3
OAT	175	Electronic Spreadsheet	3
OAT	261	Business Communications	3
OAT	128	Microsoft Outlook	1
Total Semester Credits			**31**

Career Opportunities

A graduate of the Office Technology Assistant program is prepared to work as a:

- Clerk typist
- General office clerk
- General office assistant

Virtual Assistant (069B)

This certificate program is designed to prepare students to operate from a remote location to provide support services such as administrative, creative and/or technical solutions to individuals, businesses and organizations.

Program Requisite:

OAT	172	Advanced Information Processing	3

First Semester			**Semester Credits**
MGMT	201	Entrepreneur Basics	1
MGMT	202	Entrepreneur: First Year	1
MGMT	203	Business Plan Basics	1
ACCT	110	Financial Accounting	4
OAT	180	Word Processing	3
OAT	175	Electronic Spreadsheet	3
OAT	165	Presentation Graphics	2
Total Semester Credits			**18**

Second Semester			**Semester Credits**
OAT	190	Web Design with Microsoft Office	3
OAT	261	Business Communications	3
CIS	257	Electronic Publishing	3
OAT	280	Virtual Office Technologies	3
OAT	128	Microsoft Outlook	1
MKT	128	Marketing and Social Media	1
Approved Elective			3
Total Semester Credits			**17**

Electives:

ACCT	106	Introduction to QuickBooks	3
MGMT	240	Ethics in the Workplace	1
MKT	126	Introduction to Marketing	3
MKT	228	Social Media Tools	2
OAT	169	Automated Application/Transcription	3
OAT	185	Database Applications	3
OAT	225	Advanced Word Processing	3
OAT	230	Advanced Electronic Spreadsheet	3

Total Credits **32**

Career Opportunities

A graduate of the Virtual Assistant program (069B) is prepared to work as a:

- Virtual assistant in business, education and government

Microsoft Office Specialist (0064)

This curriculum is designed to prepare students to take the Microsoft Office Specialist test(s). The Microsoft Office Specialist certification is a globally recognized certification of skill in the use of Microsoft desktop business applications.

First Semester			**Semester Credits**
OAT	170	Keyboarding/Touch System **OR**	2
OAT	171	Document Processing/Input Technology	3
OAT	180	Word Processing	3
OAT	175	Electronic Spreadsheet	3
OAT	185	Database Applications	3
OAT	128	Microsoft Outlook	1
Total Semester Credits			**12-13**

Second Semester			**Semester Credits**
OAT	165	Presentation Graphics	2
OAT	225	Advanced Word Processing/Microsoft Word	3
OAT	230	Advanced Electronic Spreadsheet/ Microsoft Excel	3
OAT	190	Web Design with Microsoft Office	3
Total Semester Credits			**11**

Total Credits **23-24**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Administrative Office Support (0065)

This one-year program of concentrated administrative office work may be completed in two semesters. Courses also could apply toward the completion of the two-year Office Administration and Technology program.

First Semester			**Semester Credits**
ACCT	105	Basic Accounting Procedures **OR**	3
ACCT	110	Financial Accounting	4
OAT	121	Introduction to Office Support	3
OAT	180	Word Processing	3
OAT	171	Document Processing/Input Technology	3
OAT	155	Software Computations	3
Total Semester Credits			**15-16**

Second Semester			**Semester Credits**
OAT	156	Microsoft Office Suite I	3
OAT	169	Automated Application/Transcription	3
OAT	261	Business Communications	3
OAT	172	Advanced Information Processing	3
OAT	175	Electronic Spreadsheet	3
ACCT	106	Introduction to QuickBooks	3
Total Semester Credits			**18**

Total Credits **33-34**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Administrative Office Support Certificate program (0065) is prepared to work as a:

- Secretary
- Receptionist

Office Support Technology (069A)

The Office Support Technology Certificate program provides the skills and knowledge necessary for entry-level office support positions in the automated office. Basic computer concepts and operation, basic word processing concepts and operation, and general office procedures are taught.

First Semester			**Semester Credits**
OAT	121	Introduction to Office Support	3
OAT	155	Software Computations	3
OAT	180	Word Processing	3
OAT	171	Document Processing/Input Technology	3
ENG	101	Rhetoric and Composition I	3
OAT	175	Electronic Spreadsheet	3
Total Semester Credits			**18**

Second Semester			**Semester Credits**
OAT	276	Current Technology for Office Support	3
OAT	261	Business Communications	3
OAT	172	Advanced Information Processing	3
OAT	165	Presentation Graphics	2
OAT	185	Database Applications	3
One of the following:			3
OAT	225	Advanced Word Processing	3
OAT	190	Web Design with Microsoft Office	3
OAT	230	Advanced Electronic Spreadsheet	3
Total Semester Credits			**17**

Total Credits	**35**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Office Support Technology Certificate program (069A) is prepared to work as an:

- Office assistant

Paralegal Studies

Coordinator/Faculty: Christie Highlander, ext. 5494

Faculty: Angelia Donovan

Dean: Janet Fontenot

The purpose of the Paralegal Studies program is to give students a working knowledge of many areas of law in order to prepare them for gainful employment in a law firm, governmental agency, insurance company or another area of the legal profession.

Many students already work in the field of law and wish to take classes in Paralegal Studies to improve their skills. Other students need specialized training to use in their current positions. These students intend to increase career choices with their current employer and to supplement the on-the-job training they have received already.

Courses in the Paralegal Studies program are taught by practicing attorneys. Some courses are available through video conferencing and online.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0088)

First Year

Fall Semester			**Semester Credits**
OAT	122	Word Processing Applications I **OR**	3
OAT	180	Word Processing	
ENG	101	Rhetoric & Composition I	3
PARL	120	Introduction to Paralegal Studies	3
BUS	215	Business Law	3
SPCH	151	Fundamentals of Public Speaking **OR**	3
SPCH	155	Interpersonal Communications	
Total Semester Credits			**15**

Spring Semester			**Semester Credits**
OAT	155	Software Computations **OR**	3
MGMT	102	Business Mathematics **OR**	
		Math over 100 level	
PARL	240	Torts	3
PARL	274	Law Office Computer Applications	3
PARL	220	Legal Research and Writing I	3
OAT	156	Microsoft Office Suite I	3
Group I Electives			3
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
POLS	150	Introduction to American Government **OR**	3
POLS	262	American Government	
OAT	261	Business Communications **OR**	3
ENG	102	Rhetoric and Composition II	
Human Well-Being Elective			2
PARL	225	Legal Research and Writing II	3
PARL	230	Civil Procedure	3
Group I Electives			3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
ECON	115	Introduction to Economics **OR**	3
ECON	201	Principles of Economics I (Macro) **OR**	
ECON	202	Principles of Economics II (Micro)	
OAT	275	Law Office Management	3
PARL	250	Litigation Support for Paralegals	3
PARL	290	Paralegal Field Project	3
PARL	235	E-discovery/E-Investigation	2
Total Semester Credits			**14**

Total Program Credits **64**

Group I Electives

PARL	260	Family Law	3
PARL	265	Wills, Probate & Estate Planning	3
PARL	270	Criminal Law	3
PARL	275	Bankruptcy/Creditors' Rights	3
PARL	280	Copyright/Trademark/Patent Law	3

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Paralegal Studies by completing at least 30 semester credits of program-related coursework. A plan of specific courses required for the degree will be dependent on the previous degree obtained by the accelerated degree candidate. It will be necessary to meet with the program coordinator to determine the exact courses required for degree completion. This plan must be approved by the dean of the Business Division and the vice president for Instruction. Students must meet all institutional requirements for the Associate in Applied Science degree.

Career Opportunities

A graduate of the Paralegal Studies program is prepared to:

- Work as a paralegal or legal assistant
- SWIC has articulation agreements with Southern Illinois University Carbondale, and Webster University in St. Louis, which allow students to enter the bachelor's program in Paralegal Studies with junior status.
- Students who are planning to apply to law school are encouraged to pursue a bachelor's degree and courses in any discipline that requires critical thinking, verbal and written communications skills, math and accounting skills, and knowledge of technology. Admission to law school requires that an applicant take the Law School Admissions Test.

Paramedic/Paramedicine

Coordinator: Curt Schmittling, ext. 5343

Dean: Julie Muertz

Career Overview

The SWIC Paramedic program prepares students for varying levels of pre-hospital care in emergency medicine. The most basic level of care is provided by the Emergency Medical Technician. (See Emergency Medical Technician page in the blue section of this catalog). The highest level of support in pre-hospital patient care is provided by the Paramedic, who works under the direct supervision of an emergency room physician via radio/mobile communications. Paramedics receive extensive training in patient assessment and treatment that may include, but is not limited to, administration of medications and advanced life support measures, including conducting and interpreting electrocardiograms, electrical interventions to support cardiac functions, performing advanced airway management techniques and administering appropriate intravenous fluids. Paramedics typically work on an ambulance, but some work in hospital emergency departments with limited responsibilities.

Paramedics must have excellent judgement and be able to prioritize decisions and act quickly in the best interest of the patient while following the physician's directives. They need strong communication skills – spoken and written – and the ability to function independently in a non-structured environment that is constantly changing. They must possess good physical stamina, endurance and body condition that would not be adversely affected by frequently having to walk, stand, crawl, lift, carry and balance at times in excess of 125 pounds. For further information regarding the field of EMTs and Paramedics, refer to the U.S. Department of Labor: Occupational Outlook Handbook at www.bls.gov.

Contact the program coordinator for more information about this program.

About the Program

- Options: 15-month certificate or two-year Associate in Applied Science degree
- Selective admission for fall or spring
- Applications accepted April 1 to July 1 for fall admission and Aug. 1 to Nov. 1 for spring admission
- Online application available in your eSTORM Student Center
- Completion of BIOL 105 and Illinois EMT license required to apply
- Illinois EMT license and CPR certification must be on file by July 1 for fall start and Nov. 1 for spring start

Licensure Requirements

Upon successful completion of the 15-month Paramedic program, graduates are awarded the Paramedic Certificate (068B) and are qualified to challenge the National Registry of Emergency Medical Technicians or State EMT-Paramedic examination for licensure. Refer to Illinois Department of Public Health website at www.idph.state.il.us for more information on the various EMT-level National examinations offered in Illinois.

Program Approval

The SWIC EMT/Paramedic program is recognized and approved by the Illinois Department of Public Health, located at 535 W. Jefferson St., Springfield, IL 62761, phone 217-782-4977. The Southwestern Illinois College Paramedic program holds a Letter of Review, which is NOT a CAAHEP accreditation status, but is a status granted by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions signifying that a program seeking initial accreditation has demonstrated sufficient compliance with the accreditation standards through the Letter of Review Self Study Report and other documentation. However, it is NOT a guarantee of eventual accreditation. The program's curriculum is guided by the standards developed by the U.S. Department of Transportation. Compliance with this curriculum helps to assure the public that our curriculum will graduate competent clinicians.

Degree Option

The Paramedic Certificate is a 38-semester-credit, 15-month program, which can be completed in four semesters. The curriculum includes EMS technical courses covering airway and breathing, cardiology, medical, trauma, OB-GYN, pediatrics and operations. Course sequence varies depending on the training location of Anderson or Memorial hospitals. The Paramedic Certificate begins each fall and spring semester. Students frequently complete the certificate and then begin to complete the degree although that is not a requirement.

The Paramedicine AAS degree is a 69-semester-credit, two-year program, which can be completed in four semesters and one summer. The curriculum includes general education courses, EMS technical courses and assigned ambulance runs.

Students are required to demonstrate competency in technical skills during ambulance runs while enrolled in EMS courses. Observations in the intensive care unit, emergency room, operating room, and labor and delivery are also included in clinical time. Students are required to have background checks and drug testing prior to clinical experience work. Ambulance runs begin in the first semester of the Paramedic program.

Admission Procedures/Application Requirements for the Paramedic Certificate

The admission procedures for the Paramedic program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants, will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. There are no waiting lists. If not admitted, interested applicants must re-apply the following semester. The SWIC paramedic program does not offer advanced placement for prospective candidates. Refer to the Paramedic Application Planning Guide for specific application requirements. Applicant Planning Guides are located at swic.edu/apply, any of the Academic Advising/Counseling Department, Enrollment Services office, or with the Health Sciences coordinator's assistant.

Selection of Applicants for Admission

Selection of qualified applicants for the Paramedic program will be based upon a numerical ranking procedure, using grades in Biology and EMT coursework, experience as an EMT, and the percentage of those general education courses required for completion of the Paramedicine degree completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Paramedic program call or visit the Health Sciences coordinator's assistant at 618-235-2700, ext. 5355, or meet with an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as possible given the number of applicants received. In the event there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached at each of the campuses or until the first week of classes during the fall or spring semesters. Contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advising/Counseling Department at 618-235-2700, ext. 5296, to obtain information of the possible application deadline extensions. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event there are more qualified applicants than spaces available in this program, those applicants residing outside District No. 522 or in a district that does not have a joint agreement with SWIC for this program will not be eligible for consideration or admission if there are more applicants than position to be filled. Resident status is determined by address on file with Enrollment Services.

Program Capacity

The Paramedic Certificate program generally accepts 20 students each fall and spring semester.

Program Location

The Paramedic Certificate program consists of the core paramedic EMS-prefixed courses, two Fire Science courses (FS280 and 160) and a general education course – BIOL 105. The Paramedicine AAS degree consists of all the Paramedic Certificate courses, additional general education courses and approved electives. Field experience and clinical practice are also part of the educational process for both programs. Specific course locations depend on the course type.

1. The general education courses and approved electives are generally available at the Belleville, Red Bud or Sam Wolf Granite City campuses.
2. The core paramedic EMS-prefixed courses are offered at Anderson Hospital in Maryville (for spring program start in January) and Memorial Hospital in Belleville (for fall program start in August).
3. Field experience and clinical practice are primarily completed within the college district, but there are some experiences in the St. Louis region and outside of the college district. Field experience is offered through various ambulance services within the EMS system.

   Students should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance to any of the locations assigned by the program.

Time Commitment

Paramedic certificate – 15-month sequence

Lecture and Lab - classes generally meet Tuesdays and Thursdays, and periodically classes will meet Fridays, Saturdays and/or Sundays:

- Memorial (fall semester start) from 9 a.m. to 1 p.m.
- Anderson (spring semester start) from 1-5 p.m.

Clinical experience is scheduled during the program, typically between 12-72 hours per month for each experience. Ambulance runs begin in the first semester of the Paramedic Certificate program.

Orientation & Performance

Applicants accepted to this program must attend all required orientation sessions and be able to perform the professional technical standards of the job with or without reasonable accommodations. The technical standards can be found at swic.edu/EMS. Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368 to discuss potential issues associated with meeting these requirements.

Students are required to demonstrate competency in technical skills during ambulance runs while enrolled in EMS courses. Observations in the intensive care unit, emergency room, operating room, and labor and delivery are also included in clinical time.

Insurance

Health insurance is required during clinical practice and field experience courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical practice or field experience.

Medical/Health Requirements

These requirements do not have to be fulfilled until further explained by program personnel after admission. Students will be required to possess current CPR certification at the Health Care Provider level and show proof of immunizations, tuberculosis test, physical examination, and health insurance coverage before beginning any clinical practice/field experience.

Additional Courses

In addition to the EMS courses, students are required to enroll and successfully complete FS 280 Hazardous Materials Awareness and FS 160 Technical Awareness to complete the Paramedic Certificate. Enrollment in these FS courses will be coordinated by the instructor. Students may be required to provide prescribed personal protective equipment for fire science courses. See detailed list of program cost at swic.edu/ems.

Background Checks and Drug Testing

A criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are required prior to clinical experience courses. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Burglary	Sexual offenses
Murder	Arson	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will result in dismissal from the program. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in the program handbook. Students who fail to meet program-specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding semester.

Course Sequence

The Paramedic Certificate program can be completed in 15 months/four semesters. Course sequence varies depending on the training location of Anderson or Memorial hospitals. Students frequently complete the certificate and then begin to complete the degree; however, that is not a requirement. EMS 110 or current EMT licensure is a requisite to the program. See *Course Description Guide* (yellow pages of catalog) for other course requirements.

Paramedic Certificate (068B)

BIOL	105	Human Biology	4
EMS	205	Paramedicine I	8.5
EMS	206	Paramedicine II	4.5
EMS	207	Paramedicine III	4
EMS	208	Paramedicine IV	5
EMS	210	Paramedic Clinical Practice I	2
EMS	211	Paramedic Clinical Practice II	1
EMS	212	Paramedic Clinical Practice III	1.5
EMS	213	Paramedic Clinical Practice IV	1.5
EMS	220	Paramedic Field Internship I	1
EMS	221	Paramedic Field Internship II	.5
EMS	222	Paramedic Field Internship III	.5
EMS	223	Paramedic Field Internship IV	1
EMS	224	Paramedic Field Internship V	2
FS	280	Hazardous Materials – Awareness	.5
FS	160	Tech Rescue Awareness	.5
Total Credits			**38**

All Paramedic Core Courses must be completed before or during semesters indicated below, unless permission is given by the program coordinator.

Fall start – Paramedic Core Course Sequence
(Memorial Hospital)

Fall Semester
- EMS 205 Paramedicine I
- EMS 210 Paramedic Clinical Practice I
- EMS 220 Paramedic Field Internship I
- FS 280 Hazardous Materials – Awareness (registered and taken with cohorts)

Spring Semester
- EMS 206 Paramedicine II (1/2 semester)
- EMS 207 Paramedicine III (1/2 semester)
- EMS 211 Paramedic Clinical Practice II (1/2 semester)
- EMS 212 Paramedic Clinical Practice III (1/2 semester)
- EMS 222 Field Experiences III (1/2 semester)
- EMS 221 Field Internship II
- FS 160 Tech Rescue Awareness (registered and taken with cohorts)

Summer Semester
- EMS 208 Paramedicine IV
- EMS 213 Paramedic Clinical Practice IV
- EMS 223 Field Internship IV

Fall Semester
- EMS 224 Field Internship V (1/2 semester)

Spring start – Paramedic Core Course Sequence
(Anderson Hospital)

Spring Semester
- EMS 205 Paramedicine I
- EMS 210 Paramedic Clinical Practice I
- EMS 220 Paramedic Field Internship I
- FS 280 Hazardous Materials – Awareness
  (Registered and taken with cohorts)

Summer Semester
- EMS 206 Paramedicine II
- EMS 211 Paramedic Clinical Practice II
- EMS 221 Field Experience VI

Fall Semester
- EMS 207 Paramedicine III (1/2 semester)
- EMS 208 Paramedicine IV (1/2 semester)
- EMS 211 Paramedic Clinical Practice II
- EMS 212 Paramedic Clinical Practice III (1/2 semester)
- EMS 213 Paramedic Clinical Practice IV (1/2 semester)
- EMS 222 Field Internship III
- EMS 223 Field Internship IV (1/2 semester)
- FS 160 Tech Rescue Awareness
  (registered and taken with cohorts)

Spring Semester
- EMS 224 Field Internship V (1/2 semester)

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Paramedicine
Associate in Applied Science Degree (0068)

First Year

Fall Semester			**Semester Credits**
HRO	100	Medical Terminology	1
BIOL	105	Human Biology	4
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology	3
SPCH	151	Fundamentals of Public Speaking **OR**	
SPCH	155	Interpersonal Communications	3
Human Relations Elective			3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
EMS	205	Paramedicine I	8.5
EMS	210	Paramedic Clinical Practice I	2
EMS	220	Paramedic Field Internship I	1
FS	280	Hazardous Materials – Awareness	.5
HRO	120	Pharmacology	3
Total Semester Credits			**15**

Second Year

Summer Semester			**Semester Credits**
EMS	206	Paramedicine II	4.5
EMS	211	Paramedic Clinical Practice II	1
EMS	221	Paramedic Field Internship II	.5
Total Semester Credits			**6**

Fall Semester			**Semester Credits**
EMS	207	Paramedicine III	4
EMS	208	Paramedicine IV	5
EMS	212	Paramedic Clinical Practice III	1.5
EMS	213	Paramedic Clinical Practice IV	1.5
EMS	222	Paramedic Field Internship III	.5
EMS	223	Paramedic Field Internship IV	1
FS	160	Technical Rescue Awareness	.5
Approved Electives*			3
Total Semester Credits			**17**

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Second Year

Spring Semester			**Semester Credits**
EMS	224	Paramedic Field Internship V	2
PSYC	210	Life-Span Development **OR**	
PSYC	270	Health Psychology	3
Approved Electives*			9
Total Semester Credits			**14**

Total Program Credits **69**

* Electives must be selected from the following list of approved courses or be approved by the program coordinator.

Approved Electives			Semester Credits
BIOL	155/157	Human Anatomy and Physiology I	5
BIOL	156/158	Human Anatomy and Physiology II	5
PSYC	200	Applied Psychology	3
PSYC	210	Life-Span Development	3
PSYC	250	Child Development	3
PSYC	251	Adolescent Development	3
PSYC	252	Educational Psychology	3
PSYC	253	Adult Development & Aging	3
PSYC	254	Death and Dying	3
PSYC	259	Abnormal Psychology	3
PSYC	260	Psychology of Addictive Behaviors	3
PSYC	270	Health Psychology	3
PSYC	288	Biological Psychology	3
SPCH	170	Advanced Speech & Persuasion	3
SOC	210	Deviance, Crime & Society	3
SOC	265	Aging & Society	3
POLS	150	Intro to American Government	3
CHEM	101	Introductory Chemistry	3
PHYS	151	General Physics	5
MGMT	213	Personnel Management	3
MGMT	214	Principles of Management	3
MGMT	217	Human Resource Management	3
MGMT	240	Ethics in the Workplace	3
EMS	105	First Responder EMS	4
EMS	110	Emergency Medical Technician	7
EMS	115	Basic Recertification Topics	.5-5
EMS	116	EMT Certification Review	.5
EMS	299	Special Topics in EMS	.5-5
HRO	160	Medical Terminology	3
FS	260	Vehicle Rescue Operations	3
FS	262	Rope Rescue I & II	3
FS	264	Confined Space Rescue I & II	3
FS	266	Trench Rescue Operations	2
FS	281	Hazardous Materials Operations	3
FS	282	Hazardous Materials Technician A	3
FS	286	Water Rescue I & II	3
HS	100	Intro to Homeland Security	3

Career Opportunities

EMTs and paramedics employed by fire departments work an average of 60 hours a week. Those employed by hospitals frequently work between 40 and 50 hours a week, and those in private ambulance services, between 40 and 72 hours. Some of these workers, especially those in police and fire departments, are on call for extended periods. Because emergency services function 24 hours a day, EMTs and paramedics have irregular working hours. Some EMTs work as part of the flight crew on helicopters that transport critically ill or injured patients to hospital trauma centers.

According to the U.S. Department of Labor: Employment is projected to grow much faster than average as paid emergency medical technician positions replace unpaid volunteers, and competition will be greater for jobs in local fire, police and rescue squad departments than in private ambulance services. Opportunities are best for those who have advanced certification.

Average Starting Salary: Earnings of EMTs and paramedics depend on the employment setting and geographic location as well as the individual's training and experience. The average annual earnings of EMTs and paramedics are between $24,000 and $34,000 annually.

Paraprofessional Education

Coordinator/Faculty: Caroline Adams, ext. 5729

Dean: Richard Spencer

This program provides graduates with the credentials to apply to work as a paraprofessional educator (teacher's aide) in a variety of educational settings. The Associate in Applied Science degree and Certificate programs are not designed to transfer into baccalaureate programs, but some courses may transfer to four-year institutions. See the program coordinator or an academic counselor for more information. **Currently, there are three options to become endorsed as a paraprofessional educator in the state of Illinois: 1) individuals must pass the WorkKeys or ParaPro assessment (ED 120 Paraprofessional Test Prep course assists in doing so), OR 2) obtain an AA from a regionally accredited institution, OR 3) complete at least 60 hours of college credit at a regionally accredited institution.**

Please see the ISBE website for more information, updates, or to apply for the endorsement: www.isbe.net/licensure/html/paraprofessional.htm.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0090)

First Year

Fall Semester			**Semester Credits**
ED	255	American Public Education	3
PSYC	151	General Psychology	3
ENG	101	Rhetoric & Composition I	3
MATH	105	Mathematics for Elementary Teachers I	4
Human Relations Course			3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
ED	260	Introduction to Educational Technology	3
ENG	102	Rhetoric & Composition II	3
MATH	106	Mathematics for Elementary Teachers II	4
General Education Humanities/Fine Arts**			3
Approved Elective*			3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
ED	265	Introduction to Special Education	3
ED	267	Diversity in 21st Century Schools	3
ECE	110	Introduction to Early Childhood Education	3
SPCH	151	Fundamentals of Public Speaking	3
HES	152	First Aid-Medical Self Help	2
Approved Elective*			3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
ED	270	Classroom Management	3
ED	293	Children's Literature	3
PSYC	250	Child Development	3
General Education Social Science**			3
ECE	112	Growth and Development of Children	3
Total Semester Credits			**15**

Total Program Credits **64**

Certificate (0091)

First Year

Fall Semester			**Semester Credits**
ED	255	American Public Education	3
ENG	101	Rhetoric & Composition I	3
MATH	105	Mathematics for Elementary Teachers I	4
Total Semester Credits			**10**

Spring Semester			**Semester Credits**
ED	260	Introduction to Educational Technology	3
MATH	106	Mathematics for Elementary Teachers II	4
General Education Humanities/Fine Arts**			3
Total Semester Credits			**10**

Second Year

Fall Semester			**Semester Credits**
ED	265	Introduction to Special Education	3
ECE	110	Introduction to Early Childhood Education	3
PSYC	151	General Psychology	3
Total Semester Credits			**9**

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Spring Semester			**Semester Credits**
ED	270	Classroom Management	3
ED	293	Children's Literature	3
PSYC	250	Child Development	3
Total Semester Credits			**9**

Total Credits **38**

***Approved Electives**

AOJ	153	Juvenile Delinquency	3
ART	260	Art for the Elementary Teacher	3
General Education Science Course**			4
HES	221	Elementary School Activities	3
PSYC	259	Abnormal Psychology	3
SLS	101	American Sign Language I	3
SOC	255	The Family	3
SPAN	101	Elementary Spanish I	4

See the *IAI General Education electives*, located in the *Transfer Information* section of this catalog. Do **not use the General Education Course Classifications of the Associate in Applied Science degree listing.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Paraprofessional Education AAS degree program can find employment as a paraprofessional educator in a variety of educational settings, including Title I and non-Title I schools and charter, magnet, alternative, private and parochial schools as well.

Physical Therapist Assistant

Coordinator/Faculty: Kim Snyder, ext. 5390

Faculty: Michelle Kujawa

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Physical Therapist Assistant program prepares students to work as skilled health care providers, who under the supervision and direction of a physical therapist, treat patients of all ages with medical problems, or other health-related conditions that limit their ability to move and perform functional activities in their daily lives. Physical therapist assistants have a high level of patient contact. Duties include: monitoring and reporting patient status, providing selected interventions, modifying care within a therapist's plan, documenting, working with other health care professionals, and supervising physical therapy aides or technicians, where applicable. PTAs are frequently involved in educating the patient, caregiver, family and community in the management of health care problems and preventative measures. For further information regarding the field of physical therapy, refer to the American Physical Therapy Association website at www.apta.org.

About the Program

- Two-year Associate in Applied Science degree
- Selective admission for fall semester start
- Recommend the following course work in high school to prepare for health science occupation: Four years of English, algebra and geometry, biology, social science courses. Keyboarding and computer application courses, chemistry, and anatomy & physiology
- Applications are accepted Sept. 1, 2016 to Feb. 1, 2017
- Online application available in your eSTORM Student Center

Licensure Requirements

Upon successful completion of the PTA curriculum, graduates are awarded an Associate in Applied Science degree and are eligible to take the National Physical Therapy Licensure Examination for PTAs. PTAs are licensed, certified, or registered in all states. Illinois and Missouri require licensure to work as a physical therapist assistant.

Program Accreditation

The Physical Therapist Assistant program at SWIC is accredited by the Commission on Accreditation in Physical Therapy Education, 1111 N. Fairfax St., Alexandria, VA 22314: phone 703-706-3245, email: accreditation@apta.org, and website: www.capteonline.org. The program's curriculum is guided by the standards developed by the commission. Our accreditation status means SWIC has met the standards required and helps to assure the public that our curriculum will graduate competent clinicians. It also allows the college's PTA graduates to take the licensure examination for any state that requires a license to practice as a physical therapist assistant.

Admission Procedures/ Application Requirements

The admission procedures for the PTA program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. There are no waiting lists for admission to any SWIC Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the PTA Application Planning Guide for specific application requirements and to enhance your potential for admission. Application Planning Guides are located at swic.edu/apply, Academic Advising/Counseling Department, Enrollment Services, or the Health Sciences coordinators' assistant's office.**

Selection of Applicants for Admission

Selection of qualified applicants for the Physical Therapist Assistant program will be based upon a numerical ranking procedure, using ACT scores or SWIC GPA, high school and/or college grades and percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Physical Therapist Assistant program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5335, or with an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received, typically late March or early April. In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of classes during the fall semester. Contact Enrollment Services at 618-235-2700, ext. 5541/5542, to obtain information of a possible application deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those **applicants who reside outside District No. 522** or in a district without a joint agreement for this program **will not be eligible for consideration or admission.** Resident status is determined by address on file with Enrollment Services by Feb. 1, 2017.

Program Capacity

The Physical Therapist Assistant program generally accepts 20 students each fall semester.

Program Location

The Physical Therapist Assistant program consists of general education courses, PTA-prefixed courses and assigned clinical experience courses. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses and can be completed prior to admission.
2. The PTA courses are only offered at the Belleville Campus during the day of the semesters indicated on the degree outline after acceptance into program.
3. Clinical experience is located throughout southern Illinois and in the St. Louis region. Specific clinical placement cannot be guaranteed.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Orientation & Performance

Applicants accepted to this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/pta-faq. Applicants and enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Health Insurance

Health insurance is required during clinical education courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical experience.

Medical/Health Requirements

PTA students will be required to show proof of medical examination and all applicable tests, immunizations, and vaccinations. Health insurance coverage is verified before beginning any clinical experience course. These requirements do not have to be fulfilled prior to admission and are further explained upon acceptance into the program.

Background Checks and Drug Testing

A criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are also required. Program start is contingent upon meeting deadlines for completion of the screening and results which allow the student to participate in the clinical portion of the program. Details and directions for accessing and purchasing online screening for background checks will be shared with accepted students. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Murder	Arson
Sexual offenses	Burglary	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To start the program, students with disqualifying criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's PTA Handbook. Students who fail to meet program-specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding year. A grade of C or better is required for all courses in the degree.

All students completing an AAS degree must complete graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations course work. Health requirements are satisfied by students successfully completing BIOL 105, PSYC 151 and this health science curriculum.

Course Sequence

The program can be completed in five semesters; however, it is recommended that students who wish to maximize points on the application complete General Education Courses (BIOL 105, ENG 101, PSYC 151, HRO 100, SPCH 151, SOC 153, PSYC 210) prior to entrance into the program and in progression following the appropriate course requisites. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All PTA-prefix courses must be completed before or during the listed semesters, unless permission is given by the program coordinator.

Associate in Applied Science Degree (0027)

First Year

Fall Semester			**Semester Credits**
BIOL	105	Human Biology*	4
ENG	101	Rhetoric & Composition I	3
PSYC	151	General Psychology	3
PTA	100	Introduction to Physical Therapy	1
PTA	101	Physical Therapy Science and Skills	4
PTA	102	Patient Care Skills & Assessment	3
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
HRO	100	Medical Terminology	1
SPCH	151	Fundamentals of Public Speaking	3
PTA	150	Theory of Physical Agents I	3
PTA	151	Application of Physical Agents I	2
PTA	160	Kinesiology & Clinical Orthopedics	5
PTA	161	Orthopedic Interventions	3
PTA	165	Pathology I	1
Total Semester Credits			**18**

Summer Semester			**Semester Credits**
PSYC	210	Life-Span Development**	3
SOC	153	Introductory Sociology	3
PTA	170	Clinical Experience I	3
Total Semester Credits			**9**

Second Year

Fall Semester			**Semester Credits**
PTA	200	Theory of Physical Agents II	3
PTA	201	Application of Physical Agents II	2
PTA	210	Therapeutic Exercise & Rehabilitation	5
PTA	211	Rehabilitation Techniques	3
PTA	220	Pathology II	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
PTA	270	Clinical Experience II	8
PTA	280	Clinical Seminar	2
Total Semester Credits			**10**
Total Program Credits			**71**

*BIOL 155 & 156/157 & 158 can replace BIOL 105.
**PSYC 210 cannot be replaced with other 200 level PSYC courses

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Career Opportunities

PTAs work in a variety of settings including hospitals, outpatient clinics, home health agencies, nursing homes, schools, sports facilities, fitness centers and industrial/occupational workplace environments. Job opportunities continue to grow as the medical field continues to promote outpatient medical services and the elderly population increases.

Average Starting Salary: The median income for PTAs with one to three years experience is between $37,000 and $42,000 annually, depending on the type and location of the health care facility.

Precision Machining Technology

Coordinator: Mark Bosworth, ext. 7457
email: mark.bosworth@swic.edu

Dean: Bradley Sparks

The SWIC Precision Machining Technology program prepares the students with the skills and experience necessary to enter a variety of machining fields at an apprentice level. Students will learn to safely set-up and operate machine shop equipment such as lathes, mills, drill presses, grinders and computer numerical control machines. In addition, they will learn computer software programs to design parts and create programs used on the computer numerical machines.

See the program coordinator or an academic advisor for more information.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (053H)

Program Requisite			**Semester Credits**
PMT	100	Precision Machining Introduction	0.5

First Year

Fall Semester			**Semester Credits**
PMT	101	Intro to the Machine Trades	4
PMT	102	Intermediate Machining	4
PMT	201	Advanced Machining	4
PMT	240	NIMS Certification	4
IML	120	Mechanical Blueprint Reading I	3
Total Semester Credits			**19.5**

Spring Semester			**Semester Credits**
PMT	110	Introduction to CNC Operations	2.5
PMT	112	CNC Turning	3
PMT	111	CNC Milling	4
PMT	250	Multi-Axis CNC Programming	4
PMT	114	Metallurgy I (Industrial)	2
PMT	202	Cutting Tools/Fixturing/Insp	2
Total Semester Credits			**17.5**

Summer Semester			**Semester Credits**
PMT	226	Geom Dim & Tolerancing (GD&T)	1
GT	105	Intro to Technical Math **OR**	
MATH	112	College Algebra **OR** Higher Level Math	4
Total Semester Credits			**5**

Second Year

Fall Semester			**Semester Credits**
PMT	231	Intro to SolidWorks	4
PMT	221	Intro to Mastercam	4
PMT	222	Advanced Mastercam	4
PMT	262	Advanced Mastercam/Multi-Axis	4
Total Semester Credits			**16**

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Spring Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
HES	151	Personal Health and Wellness	2
Communications Course			3
Human Relations Course			3
Social Science Course			3
Total Semester Credits			**14**
Total Program Credits			**72**

Certificate Programs

Precision Machining Technology Certificate (054H)

Program Requisite			
PMT	100	Precision Machining Introduction	0.5

			Semester Credits
PMT	101	Intro to the Machine Trades	4
PMT	102	Intermediate Machining	4
PMT	110	Introduction to CNC Operations	2.5
PMT	111	CNC Milling	4
IML	120	Mechanical Blueprint Reading I	3
PMT	112	CNC Turning	3
PMT	201	Advanced Machining	4
PMT	221	Introduction to Mastercam	4
PMT	222	Advanced Mastercam	4
PMT	226	Geom Dim & Tolerancing (GD&T)	1
PMT	240	NIMS Certification	4
GT	105	Intro to Technical Math **OR**	
MATH	112	College Algebra **OR**	
Higher Level Math			4
Total Credits			**42**

CNC Machining Certificate (054P)

Computer Numerical Control introduces students to programming, setting up and operating CNC machine tools, which include three-axis vertical mills and two-axis lathes. It also provides experience in setting work offsets and tool lengths and operating HAAS CNC equipment. These courses introduce the programming format needed to program finished machined parts on the equipment. The students will be required to complete finish parts using all the necessary codes that a CNC machine tool offers. The certificate will provide training for CNC operators, machinists and workers wanting to enhance their machining abilities.

Program Requisite

PMT	100	Precision Machining Introduction	0.5

			Semester Credits
PMT	110	Introduction to CNC Operations	2.5
PMT	111	CNC Milling	4
PMT	112	CNC Turning	3
Total Credits			**10**

Mastercam Certificate (054L)

Computer Aided Drafting and Computer Aided Manufacturing are becoming necessary tools in many machine shops and manufacturing companies. Using Mastercam software, the students will learn to design and draw machine parts with the use of a computer. From the created drawing the students then will apply tool paths to create a CNC program to be run on a HAAS CNC machine tool. The students will be required to create completed machined parts using this process. The certificate will provide training for CNC operators, machinists and workers wanting to enhance their machining abilities.

Program Requisite

PMT	100	Precision Machining Introduction	0.5

			Semester Credits
PMT	221	Intro to Mastercam	4
PMT	222	Advanced Mastercam	4
Total Credits			**8.5**

SolidWorks Certificate (054M)

Computer Aided Drafting is an important part in the manufacturing process. SolidWorks is a leading software package used by many manufactures. Students will use SolidWorks to create solid models of parts that will then be used to manufacture a finished part. The models will be used to create prints for the machining of the parts or to transfer to a CAD/CAM software for creating a CNC program. The certificate will provide training for many different skilled workers, machinists, draftsmen and designers.

PMT	231	Intro to SolidWorks	4
PMT	232	Advanced SolidWorks	4
Total Credits			**8**

Advanced CNC Programming Certificate (054R)

The Advanced CNC Programming Certificate gives the students the skills to operate and program multi-axis CNC machine tools, which includes multi-vise set-ups, four- and five-axis CNC milling centers and CNC turning centers with live tooling, Y axis and bar feeding capabilities. Students will gain experience in setting up and programming these state of the art Advanced CNC machines. Mastercam CAD/CAM software will also be used for more advanced programming of these CNC machines. Courses are designed for the students to be given a print or solid model to create a part to be produced using all the Advanced CNC machines. The certificate will provide training for CNC operators, CNC programmers, machinists and workers wanting to enhance their machining skills.

PMT	250	Multi-Axis CNC Programming	4
PMT	262	Advanced Mastercam/Multi-Axis	4
Total Credits			**8**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

Demand for graduating students is steady and jobs for graduates can be found in a variety of businesses, especially those producing machinery parts for the automotive and aircraft manufacturing industries. A graduate of the Precision Machining Technology program is prepared to work as a(n):

- Toolmaker
- CNC operator
- CNC programmer
- General machinist
- Maintenance machinist
- Inspector
- CAD/CAM programmer

In addition, all manufacturing businesses such as steel, chemical, oil, food and beverage need the services of skilled machinists. Many small machine shops who supply services to larger companies hire Precision Machining Technology graduates.

Radiologic Technology

Coordinator: Rhonda Kern, ext. 5303

Faculty: Larry Wheeler

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview:

The SWIC Radiologic Technology program prepares students to safely and effectively use radiographic equipment to produce x-rays for the purpose of diagnosing and treating illnesses and injuries. Radiologic technologists have a high level of patient contact. Radiologic technologists provide vital information concerning structure and function of the human body, enabling physicians to make accurate diagnoses to pursue care and treatment. Radiologic technology encompasses a variety of specialties and plays an invaluable role in the practice of medicine. Radiologic technologists play a key role in the total spectrum of medical imaging of health care services. For further information regarding the field of radiology, refer to the American Society of Radiologic Technologists website at www.asrt.org or the Illinois State Society of Radiologic Technologists website at www.issrt.org/. **Contact an academic advisor for career exploration.**

About the Program

- Two-year Associate in Applied Science degree
- Selective admission for summer semester start
- Applications are accepted Sept. 1 to Dec. 1, 2016
- Completion of biology, chemistry/physics and algebra in high school or college are required to apply
- Deadline for application documentation is Feb. 1, 2017
- Online application available in the eSTORM Student Center.

Licensure Requirements

Upon successful completion of the RT curriculum, graduates are awarded an Associate in Applied Science degree and are eligible to take the national examination for the American Registry of Radiologic Technologists.

Individuals applying to take the American Registry of Radiologic Technology certification exam may need to complete a Pre-Application Review to determine ethics eligibility. State agencies governing the practice of radiographers may deny an individual licensure, even if the individual has completed all course work and graduated from the program, if the individual has a criminal history, has been convicted, or pleads guilty or nolo contendere to a felony or other serious crime.

Program Accreditation

The SWIC Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology, located at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; phone 312-704-5300, email: mail@jrcert.org. The program's curriculum is guided by the standards developed by the ASRT. The accreditation status means SWIC has met the standards required and helps to assure the public that the curriculum will graduate competent clinicians.

Admission Procedures/ Application Requirements

The admission procedures for the RT program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. Students must apply and be formally accepted into the Radiologic Technology program before enrolling in RT-prefixed courses. There are no waiting lists for admission to any Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the RT Application Planning Guide for specific application requirements and to enhance your potential for admission to this highly competitive application process. Application planning guides are located at swic.edu/apply, Academic Advising/Counseling Department, Enrollment Services, or with the Health Sciences coordinators' assistant.**

Selection of Applicants for Admission

Selection of qualified applicants for the Radiologic Technology program will be based upon a numerical ranking procedure, using ACT scores or SWIC GPA, high school and/or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. **Applicants should be aware that general education courses completed in the Spring 2017 Semester preceding potential summer entry may not be calculated in the numerical ranking.** To obtain more information on the entrance requirements for the Radiologic Technology program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355, or with an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received (typically by April). In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of classes during the summer semester. Check swic.edu or contact Enrollment Services at 618-235-2700, ext. 5541/5542, or the Academic Advising/ Counseling Department at 618-235-2700, ext. 5206, to obtain information of a possible applications deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants who reside outside District No. 522 or in a district without a joint agreement for this program **will not be eligible for consideration or admission**. Resident status is determined by address on file with Enrollment Services by Feb. 1, 2017.

Program Capacity
The Radiologic Technology program generally accepts 40 students each summer semester.

Program Location
The Radiologic Technology program consists of general education courses, RT-prefix courses and assigned clinical experience courses. Specific locations depend on the course type.

1. The general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses and can be completed prior to admission.
2. The RT courses are only offered at the Belleville Campus during the day of the semesters indicated on the degree outline after acceptance into the program.
3. Clinical experience is completed during the day at hospitals/clinics located throughout southern Illinois and in the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Students will be required to complete some (approximately five) evening assignments during the second year. Specific clinical placement cannot be guaranteed.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Orientation & Performance
Applicants accepted into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/rt-faq.

Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Health Insurance
Health insurance is required during clinical education courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical experience courses.

Medical/Health Requirements
RT students will be required to possess current CPR certification at the Health Care Provider level, show proof of immunizations, tuberculosis test, physical examination and health insurance coverage before beginning any clinical experience course. These requirements do not have to be fulfilled prior to admission and are further explained at the program orientation meeting.

Background Checks and Drug Testing
A criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are also required. Program acceptance is contingent upon meeting deadlines for completion of the screening and results which allow the student to participate in the clinical portion of the program. Program acceptance letters will include details and directions for accessing and purchasing the online screening for criminal background checks. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Burglary	Sexual offenses
Murder	Arson	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Positive drug testing results from the use of illegal drugs or prescription medication the student does not have a prescription for in his/her own name. Dismissal for positive criminal background check, drug test, or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements
Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's RT Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to reapply and compete for admission in the succeeding year. A grade of C or better is required for all courses in the degree.

All students completing an AAS degree must have completed graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations course work. Health requirements are satisfied by students successfully completing BIOL 105, PSYC 151 and this health sciences curriculum.

Course Sequence

The program can be completed in four semesters and two summer; however, it is recommended that students who wish to maximize points on the application complete General Education Courses (HRO 100, BIOL 105, ENG 101, PSYC 151, SPCH 151/155 and human relations course) prior to entrance into the program and follow the appropriate course requisites. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All RT-prefix courses must be completed during the listed semesters, unless permission is given by the program coordinator.

Associate in Applied Science Degree (0028)

First Year

Summer Semester			**Semester Credits**
RT	100	Radiologic Technology I	2.5
RT	101	Radiographic Positioning I	3.5
RT	102	RT Math Computations	1
HRO	100	Medical Terminology	1
Total Semester Credits			**8**

Fall Semester			**Semester Credits**
BIOL	105	Human Biology**	4
RT	110	Radiologic Technology II	3
RT	111	Radiographic Positioning II	4
RT	112	Clinical Experience I	3
RT	131	X-ray Physics I	4
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
RT	150	Radiologic Technology III	3
RT	151	Radiographic Positioning III	4
RT	152	Clinical Experience II	3
RT	180	X-ray Physics II	4
Total Semester Credits			**17**

Second Year

Summer Semester			**Semester Credits**
RT	160	Clinical Experience III	3
Total Semester Credits			**3**

Fall Semester			**Semester Credits**
PSYC	151	General Psychology	3
RT	230	Pathology for Radiographers	1
RT	241	Clinical Experience IV	3
RT	242	Clinical Modalities I	1
RT	244	Radiobiology	4
Total Semester Credits			**12**

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Spring Semester			**Semester Credits**
SPCH	151	Fundamentals of Public Speaking **OR**	3
SPCH	155	Interpersonal Communication	
RT	297	Radiologic Technology Review	4
RT	296	IT for Radiographers	1
RT	298	Clinical Modalities II	1
RT	299	Clinical Experience V	3
Human Relations Course*			3
Total Semester Credits			**15**

Total Program Credits	**73**

*See beginning blue AAS degree pages for listing of all Human Relations course options.

**BIOL 105 can be replaced by BIOL 155/156 or BIOL 157/158.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

RTs work in a variety of settings including hospitals, health care facilities, oncology centers and physicians' offices. Job opportunities continue to grow as the medical field continues to promote outpatient medical services and the elderly population increases.

Average Starting Salary: $34,000-$40,000, depending on the type and location of the health care facility.

Respiratory Care

Coordinator: Diane Dodd, phone 618-234-8911, ext. 1928

Faculty: John Bast

Coordinators' Assistant: Candice Rodgers, ext. 5355

Dean: Julie Muertz

Career Overview

The SWIC Respiratory Care program prepares students for entry-level and advanced-level practitioner positions in the respiratory care profession. Respiratory therapists have a high level of patient contact. Respiratory therapists, under the supervision of a physician, see patients of all ages to assist in the prevention, treatment and rehabilitation of pulmonary problems. The practice of respiratory care entails: monitoring, evaluating and reporting patients' cardiopulmonary status; providing treatments to keep the airway open; conducting sleep studies and metabolic studies, patient and family education, student clinical education and home care; discharge planning and follow up; as well as outpatient pulmonary rehabilitation.

For further information regarding the field of respiratory care, refer to the American Association for Respiratory Care website at www.aarc.org. Contact the program coordinator, coordinators' assistant or an academic advisor for more information.

About the Program

- Two-year Associate in Applied Science degree
- Selective admission for summer semester start
- Applications accepted Sept. 1, 2016 to Feb. 1, 2017
- Completion of biology, chemistry, and algebra in high school or college is required to apply
- Assessment of math skills must be completed by April 1, 2016.
- Deadline for application documentation is Feb. 1, 2017.
- Online application available in eSTORM Student Center

Licensure Requirements

Upon successful completion of the RC curriculum, graduates are awarded an Associate in Applied Science degree in Respiratory Care and are qualified to attempt the National Board of Respiratory Care examinations. Scores on these examinations impact the graduates ability to attain a license to practice as a Respiratory Therapist and identify the level of care the RT can provide through credentialing. Potential credentials include: Certified Respiratory Therapist or Registered Respiratory Therapist. The first step in the examination/credentialing process is completion of the Therapist Multiple-Choice Exam. This exam assesses the essential knowledge, skills and abilities of the graduate. There are two established cut scores for the TMCE. If a candidate achieves the lower cut score, they will earn the CRT credential, identifying they have entry-level RT knowledge, skills and abilities. If the candidate achieves the higher cut score, they will earn the CRT credential and are eligible to complete the Clinical Simulation Examination (provided they meet all other eligibility requirements). Successful completion of the Clinical Simulation Examination earns the candidate the RRT credential. Supervisory positions and intensive care specialties typically require the RRT, which is advanced RC knowledge, skills and abilities. Credentials are used as the basis for the licensure in all 49 states that regulate the practice of respiratory care. All states, excluding Alaska, require a respiratory therapist to be licensed.

Program Accreditation

The SWIC Respiratory Care program is accredited by the Commission on Accreditation for Respiratory Care, located at 1248 Harwood Road, Bedford, Texas 76021-4244, phone 817-283-2835, website: www.coarc.com. The program's curriculum is guided by the standards developed by CoARC. The accreditation status means SWIC has met the standards required and helps to assure the public that our curriculum will graduate competent clinicians. It also ensures that the college's RC graduates are qualified to take the National Board for Respiratory Care's credentialing and registry examinations.

Admission Procedures/ Application Requirements

The admission procedures for the RC program are in accordance with Illinois law. The law requires that programs not having sufficient space and resources to accommodate all applicants will accept those applicants best qualified, using rank, ability and achievement test scores as guides, with preference given to students residing in the district. Students must apply and be formally accepted into the Respiratory Care program before enrolling in RC-prefix courses. There are no waiting lists for admission to any Health Sciences program. If not admitted, interested applicants must re-apply the following year. **Refer to the RC Application Planning Guide for specific application requirements and to enhance your potential for admission to this competitive application process. Application Planning Guides are located at swic.edu/apply, Enrollment Services or Academic Advising/Counseling Department, or with the Health Science coordinators' assistant.**

Selection of Applicants for Admission:

Selection of qualified applicants for the Respiratory Care program will be based upon a numerical ranking procedure, using ACT scores or SWIC GPA, high school and/or college grades and the percentage of those general education courses required for graduation completed prior to admission with a grade of B or better. To obtain more information on the entrance requirements for the Respiratory Care program, call or visit the Health Sciences coordinators' assistant at 618-235-2700, ext. 5355, or with an academic advisor, call or visit the Belleville Campus, 2500 Carlyle Ave., 618-235-2700, ext. 5206; the Red Bud Campus, 500 W. South Fourth St., 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 4950 Maryville Road, 618-931-0600, ext. 7333.

Applicants will be notified of their status regarding admission as quickly as is possible given the number of applications received. In the event that there are fewer qualified candidates than there are spaces available, applications will continue to be accepted until the program's maximum capacity has been reached or until the first week of classes during the fall semester. Contact Enrollment Services at 618-235-2700, ext. 5541/5542, to obtain information of a possible application deadline extension. The college reserves the right to fill the program in those years when there are fewer applicants than spaces available by whatever means it deems necessary to assure both academic integrity and fairness in the selection process.

In the event that there are more qualified applicants than spaces available in this program, those applicants who reside outside District No. 522 or in a district without a joint agreement for this program, will not be eligible for consideration or admission. Resident status is determined by address on file with Enrollment Services by April 1, 2017.

Program Capacity

The Respiratory Care program generally accepts 30 students each fall semester.

Program Location

The Respiratory Care program consists of general education courses, RC-prefix courses and assigned clinical practice courses. Specific locations depend on the course type.

1. The General Education Courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses and can be completed prior to admission.
2. The RC courses are offered during the day of the semesters indicated on the degree outline after acceptance into program or with program coordinator permission. Most RC courses are Web-enhanced, therefore computer access is recommended.
3. Clinical practice may be scheduled during the day, evening, night, or weekend shift at RC employment settings throughout southern Illinois and in the St. Louis region. Students may be required to travel outside the college district for clinical experience courses. Specific clinical placement cannot be guaranteed.

Applicants should check location and schedule of classes to ensure availability and access. Students are responsible for their own transportation and attendance at any of the classes and clinicals assigned by the program.

Time Commitment

First-year students (fall, spring and summer semesters)

- Clinical practice on Tuesday, Wednesday and/or Friday (8-hour shift)
- Class/Lab on Monday and Thursday (8-hour day)

Second-year students (fall and spring semesters)

- Clinical practice on Monday, Wednesday and/or Thursday (8-hour shift)
- Class/Lab on Tuesday and Friday (8-hour day)

Orientation & Performance

Applicants accepted into this program must attend all required orientation sessions and be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions can be found at swic.edu/rc-faq. Applicants or enrolled students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.

Health Insurance

Health insurance is required during clinical practice courses. Students are personally responsible for any costs incurred for injuries occurring during their clinical practice.

Medical/Health Requirements

RC students will be required to possess current CPR certification at the Health Care Provider level and show proof of immunizations, tuberculosis test, physical examination and health insurance coverage before beginning any clinical practice course. These requirements may not have to be fulfilled prior to admission and are further explained at the program orientation meeting.

Background Checks and Drug Testing

A criminal background check, random drug test, and name search on government registries which prohibit employment in health care professions are also required. Program acceptance is contingent upon meeting deadlines for completion of the screening and results which allow the student to participate in the clinical portion of the program. Program acceptance letters will include details and directions for accessing and purchasing the online screening for background checks. Background checks are conducted from every state in which the student has worked or resided since the age of 18 years. Conviction of offenses in the following areas normally prohibit the student from participation in the clinical portion of their program and will result in program dismissal:

Assault	Burglary	Sexual offenses
Murder	Arson	Robbery

Refer to the Health Care Worker Background Check Act for a complete list of offenses at www.idph.state.il.us/nar/. To participate in the clinical portion of the program, admitted students with criminal convictions will be required to present an Illinois Department of Public Health waiver upon college request. Students may call 217-785-5133 to request a waiver application from IDPH. Applicants should be aware that obtaining a waiver does not guarantee program admission, and that not every clinical facility accepts the IDPH waiver, therefore obtaining the waiver is not a guarantee that the clinical portion of the program can be completed. It is certain that without the waiver, the clinical sites will not permit direct patient contact and program completion will not be possible. Required clinical sites will be surveyed to determine if clinical placement can be accomplished with identified conviction(s). Students will be dropped if clinical site(s) prohibit conviction.

In addition, positive results from the drug test and student listing on prohibitory government registry will also result in dismissal from the program. Positive drug testing results from the use of illegal drugs or prescription medication the student does not have a prescription for in his/her own name. Dismissal for positive criminal background check, drug test or listing on a government registry does not qualify students for refund of tuition or lab fees. Students who have concerns regarding their status with the above regulations are encouraged to discuss the matter with the program coordinator or coordinators' assistant prior to seeking admission.

Graduation Requirements

Applicants admitted to the program must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements specified. Students are responsible for program policies as listed in each year's RC Student Handbook. Students who fail to meet program specific requirements will be dropped from the program and may be required to re-apply and compete for admission in the succeeding semester. A grade of C or better is required for all courses in the degree.

All students completing an AAS degree must complete graduation degree requirements in the front section of the blue pages of this catalog as well as the requirements specified for Human Relations course work. Health requirements are satisfied by students successfully completing BIOL 105, PSYC 151 and this health sciences curriculum.

Course Sequence

The program can be completed in four semesters and two summers; however, it is recommended that students who wish to maximize points on the application complete General Education Courses (HRO 100, BIOL 105, ENG 101, SOC 153, ENG 102/SPCH 151, PSYC 151) prior to entrance into the program and in progression following the appropriate course requisites. For information on course requisites, please refer to the *Course Description Guide* (yellow section) in this catalog. All RC-prefix courses must be completed before or during the listed semesters, unless permission is given by the program coordinator.

Associate in Applied Science Degree (020A)

First Year

Summer Semester			**Semester Credits**
HRO	100	Medical Terminology*	1
BIOL	105	Human Biology*	4
Total Semester Credits			**5**

Fall Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I*	3
RC	102	Cardiopulmonary Anatomy and Physiology**	3
RC	103	Applied Science**	3
RC	104	Respiratory Care Practices and Procedures I	5
RC	105	Patient Assessment	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
SOC	153	Introductory Sociology*	3
RC	110	Cardiopulmonary Pathology**	3
RC	111	Respiratory Care Pharmacology**	3
RC	112	Respiratory Care Practices and Procedures II	5
RC	113	Clinical Practice I	4
Total Semester Credits			**18**

Summer Semester			**Semester Credits**
RC	114	Respiratory Care Practices and Procedures III	2.5
RC	115	Clinical Practice II	2
Total Semester Credits			**4.5**

Second Year

Fall Semester			**Semester Credits**
ENG	102	Rhetoric & Composition II* **OR**	3
SPCH	151	Fundamentals of Public Speaking*	
RC	203	Respiratory Care Practices and Procedures IV	5
RC	204	Clinical Practice III	4
Total Semester Credits			**12**

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Spring Semester			**Semester Credits**
PSYC	151	General Psychology*	3
RC	205	Respiratory Care Practices and Procedures V	4.5
RC	206	Clinical Practice IV	4
RC	207	Respiratory Care in Review	3
Total Semester Credits			**14.5**
Total Program Credits			**71**

*Students are encouraged to complete as many of these courses as possible *before* beginning the Respiratory Care coursework. BIOL 105 and HRO 100 must be completed by the end of the Summer 2016 Semester to be eligible for RC 104 in the Fall 2016 Semester. BIOL 155 & 156/157 & 158 can replace BIOL 105.

**Depending on space availability, these courses may be taken prior to program admission by applicants who make the alternate list. Coordinator permission is required. This allows the student the flexibility to complete as much coursework before beginning actual clinical rotations in health care facilities. Completion of RC 102, RC 103, RC 110, and RC 111 does not guarantee RC program admission. Students must still apply to the program for admission the following year. See RC program planning guides for details.

Career Opportunities

Respiratory therapists work in a variety of settings, including hospitals, clinics, skilled care facilities, physicians' offices, home health care agencies and medical product companies. Job opportunities for respiratory therapists are very good, especially for therapists with experience working with infants.

Average Starting Salary: Salaries start at about $35,000, depending on the size and location of the health care facility. The Human Resources Study from the American Association for Respiratory Care indicated that mean annual salary for respiratory therapists was $59,927 in the year 2014.

Sign Language Studies: Interpreter

Coordinator/Faculty: Karyn Houston
email: karyn.houston@swic.edu
OR 618-310-0055

Faculty: Susen McBeth

Dean: Julie Muertz

The SWIC Sign Language Studies degree program prepares students to work as interpreters for the deaf or hard of hearing community. While the foundation of the curriculum is a commitment to American Sign Language, interpreters must be able to adjust to a broad range of consumer preferences to communicate effectively. They must understand the cultures in which they work and apply that knowledge to promote effective cross-cultural communications. Graduates will recognize and adapt to the variation in language usage that exists within the deaf and non-deaf community to clearly relay concepts and ideas between the two languages. Successful interpreters are flexible, outgoing and feel comfortable in front of a group. They also relate effectively to the public and have a command of the English language. For further information regarding the field of Sign Language Interpreting, refer to the Registry of Interpreters for the Deaf website at www.rid.org.

Upon successful completion of the SLS degree program, graduates are awarded an Associate in Applied Science degree in Sign Language Studies/Interpreter and are prepared for entry-level, paraprofessional interpreting positions. The National Association of the Deaf and the Registry of Interpreters for the Deaf jointly offer national examinations at various sites in the state and country for general sign language interpreters. In order to take the national examination, a bachelor's degree is required. For those preferring to take the state examination and/or Education Interpreter Performance Assessment (EIPA), the AAS degree is sufficient. The SLS curriculum prepares graduates for this written and performance-based examination.

Additionally, the college offers another program track designed for individuals who want to be able to communicate informally with people who are deaf or hard of hearing. The SWIC Sign Language Studies/Basic Communication Certificate program is designed for those who want general information and skills in basic sign language communication. These skills may enhance their current employment, as well as provide accessibility to colleagues who are deaf or hard of hearing.

Contact the program coordinator or an academic advisor for more information about enrolling in the program.

About the Degree Program

This is a 67-semester-credit, two-year degree program, which can be completed in four semesters. The curriculum includes communication, social science, SLS interpreting technical courses and assigned field experiences/practicum. There are 17 semester credits of General Education Courses and 50 semester credits of Sign Language Studies/Interpreter courses. Courses are offered in the day or evening. Certain courses are only offered once a year, therefore it is highly recommended that students meet with the program coordinator to develop a schedule for completing the degree requirements in the proper sequence.

Field experience/practicum courses are completed off campus in various deaf/hard of hearing community events. Students will be required to travel outside of the college district for field experience/practicum courses. Additionally, in SLS 101, 102 and 203 there are some required assignments off campus to allow students to observe and converse with deaf and hard of hearing individuals using American Sign Language. They also may be required to have a criminal background check and/or drug testing depending on the setting. Field experience begins in the second semester of the two-year program.

Enrollment Procedures

The SWIC Sign Language Studies certificate and degree programs are open to any student who is a high school graduate, earned a high school equivalency certificate, or is transferring from an accredited college or university. To enroll, students must:

A. Complete a SWIC New Student Information Form and registration form to enroll in classes.
B. Complete the SWIC Placement Test. To enroll, SWIC Placement Test results must qualify the student for enrollment in ENG 101 or greater and MATH 94 or greater. To schedule the SWIC Placement Test, call or visit the Testing Center at the Belleville Campus, 618-235-2700, ext. 5182; the Red Bud Campus, 618-282-6682, ext. 8114; or the Sam Wolf Granite City Campus, 618-931-0600, ext. 7337.

General Information

A. Students who want to be interpreters must be able to perform the essential functions of the job with or without reasonable accommodations. The essential functions of the job are listed at swic.edu/sls. Students are encouraged to contact the Disability & Access Center at 618-235-2700, ext. 5368, to discuss potential issues associated with meeting these requirements.
B. To develop proficiency in signing and interpreting time, dedication, study, and immersion in the deaf/hard-of-hearing community and constant practice are required. The level of skill students attain is directly related to their participation/practice.
C. The program is offered at the Belleville Campus for SLS courses with field experience and practicums at facilities in the Metro East and St. Louis region; required general education courses can be taken at the Belleville, Red Bud or Sam Wolf Granite City campuses.
D. Students should check the location and schedule of classes to ensure their own availability and access. Students are responsible for their own transportation and attendance at any of the classes and field experience/practicum assigned by the program.
E. Enrolled students must follow the requirements for graduation at the time they are admitted and must meet all course, program, degree and sequencing requirements as specified. Students who fail to meet program-specific requirements will be dropped from the program.
F. A grade of C or better is required for all SLS courses in the degree.
G. Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0024)

First Year

Fall Semester			**Semester Credits**
SLS	100	Non-Verbal Communications	2
SLS	101	American Sign Language I	5
SLS	110	Deaf Studies/Culture	3
SLS	125	ASL Fingerspelling & Numbers	1
ENG	101	Rhetoric & Composition I	3
SPCH	151	Fundamentals of Public Speaking	3
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
SLS	102	American Sign Language II	5
SLS	105	Field Experiences	2
SLS	120	ASL Linguistics I	3
Social Science Elective*			3
SPCH	155	Interpersonal Communication	3
Human Well-Being Elective*			2
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
SLS	203	American Sign Language III	5
SLS	205	Interpreting I	3
SLS	206	Interpreter Principles and Practices	3
SLS	210	ASL Linguistics II	3
SLS	255	Transliterating	3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
SLS	220	Interpreting II	3
SLS	230	Interpreting Practicum	3
SLS	225	Sign to Voice	3
SLS	270	Educational & Specialized Interpreter Settings	3
SOC	153	Sociology	3
Total Semester Credits			**15**

Total Program Credits **67**

*See beginning AAS degree (blue) pages for listing of all Social Science and Human Well-Being options.

Sign Language/Basic Communication Certificate (024A)

Note: For enhancement of communication skills for social service providers, not for interpreter placement or certification.

First Year

Fall Semester			**Semester Credits**
SLS	100	Non-Verbal Communications	2
SLS	101	American Sign Language I	5
SLS	110	Deaf Studies/Culture	3
SLS	125	ASL Fingerspelling & Numbers	1
Total Semester Credits			**11**

Spring Semester			**Semester Credits**
SLS	102	American Sign Language II	5
SLS	105	Field Experiences	2
Total Semester Credits			**7**

Total Program Credits **18**

Career Opportunities

Sign language interpreting is a rapidly expanding field. Interpreters may work for an agency or be self-employed. Schools, government agencies, hospitals, court systems and private businesses employ interpreters. Interpreters work in a variety of settings including medical, legal, religious, mental health, rehabilitation, performing arts and business. The setting in which an interpreter may work is based on the skill level attained on the national certification exam and/or state regulations regarding practice as an interpreter. For individuals who desire additional practice/preparation for the interpreter certification examination, enrollment in SLS 275 Interpreting Practicum II is recommended.

Transfer to MacMurray College under an articulation agreement to complete a bachelor's degree in interpreter preparation.

Average Starting Salary: Interpreters earn between $15 and $50 per hour. Wages vary on the type, location and the day/evening rates of the interpreting assignment. Special interpreting assignments requiring special skills such as conference or platform interpreting or performances may negotiate a higher contract rate.

Warehousing and Distribution

Coordinator: Mark Bosworth, ext. 7457
email: mark.bosworth@swic.edu

Dean: Bradley Sparks

Warehouse employees help load and unload freight and move it around warehouses and terminals. Often, these employees work together in groups of three or four. They may use conveyor belts, handtrucks, pallet jacks or fork lifts to move freight. They may place heavy or bulky items on wooden skids or pallets to be moved by industrial trucks.

An objective of the certified warehousing and distribution specialist curriculum is to create a pool of skilled employees from which companies can draw as they staff their warehousing and distribution centers. A second objective is to provide training for employees currently employed in warehousing and distribution to prepare them for greater responsibility and growth in their careers. Skills taught in the courses are drawn from typical job skills requirements as determined by needs analysis among leading-edge warehousing and distribution operations. The curriculum consists of five courses, a warehousing and distribution center simulation, and a final assessment of knowledge and skills.

Warehousing and Distribution Certificate (045W)***

MFT	120	Warehousing Environment	1.5
MFT	121	Warehousing Workforce Skills	1.5
MFT	122	Warehousing & Distribution Process	2.5
MFT	123	Warehousing Technology Skills	2
MFT	124	Representative Warehousing Skills	2.5
Total Semester Credits			**10**

***All courses are taken concurrently and offered during one semester.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

The number of wage and salary jobs in the truck transportation and warehousing industries is expected to experience steady growth which will result in many job openings because the industry is so large. There will also be openings due to replacement needs for the large number of workers who will transfer to other industries or retire. This certificate will provide skills as a warehouse employee.

Web Designer

For more computer classes, see:

Computer Information Systems

Graphic Communications

Network Design and Administration

Office Administration and Technology

Web Development and Administration

Coordinator/Faculty: Nikki Hensley, ext. 5382

Faculty: Beth Burns

Dean: Janet Fontenot

The Web Designer program provides students with the basics of website design. Graphics, animation, cascading style sheets, typography, navigation, JavaScript, accessibility and usability are emphasized throughout the degree courses. Students will design websites using a variety of techniques and software applications.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0141)

First Year

Fall Semester			**Semester Credits**
CIS	125	Operating Systems Basics	1
CIS	172	Photoshop	3
CIS	174	HTML	3
CIS	180	Introduction to Programming	3
CIS	195	Introduction to Databases	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
CIS	171	Computer Graphics	3
CIS	176	Web Development I	3
CIS	177	JavaScript Programming I	3
CIS	187	Java Programming I	3
CIS	259	Current Web/Graphic Technology	3
Human Well-Being Elective			2
Total Semester Credits			**17**

Second Year

Fall Semester			**Semester Credits**
CIS	147	Fonts & Type	2
CIS	173	Graphics and Animation	3
CIS	212	Introduction to XML	3
CIS	272	Advanced Photoshop	3
CIS	288	JSP	3
English or Journalism Elective			3
Total Semester Credits			**17**

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Spring Semester			**Semester Credits**
CIS	256	Web Site Development	3
CIS	277	jQuery	3
CIS	296	Web and Graphics Internship	3
Humanities OR Social Science Elective			3
Humanities OR Social Science Elective			3
Communications/Humanities/Social Science/ Human Well-Being Elective			1-3
Total Semester Credits			**16-18**

Total Program Credits **66-68**

*All students must complete graduation requirements listed in the front of the blue pages for this catalog for an Associate in Applied Science degree including the requirement for Human Relations coursework.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Certificate Programs

Web Coding (011D)

Students completing the Web Coding Certificate will learn software and coding principles required to construct websites. Emphasis will be placed on good HTML coding techniques. Students will learn to code for specific browsers and will learn how to include animation and sound on websites.

CIS	174	HTML**	3
CIS	176	Web Development I	3
CIS	177	JavaScript Programming I	3
CIS	180	Introduction to Programming	3
CIS	187	Java Programming I	3
CIS	195	Introduction to Databases	3
CIS	212	Introduction to XML	3
CIS	256	Web Site Development	3
CIS	259	Current Web/Graphic Technology	3
CIS	288	JSP	3
Total Credits			**30**

**CIS 155 and CIS 161 together may be substituted for CIS 174

Web Design (011E)

Students completing the Web Design Certificate will learn software and design principles required to construct websites. Emphasis will be given to graphics, colors, tiles, image maps, rollovers, navigation bars, alignment, composition, Web typography and the use of HTML editors. Students will learn to design for specific browsers and will learn how to include animation and sound on websites.

CIS	147	Fonts & Type	2
CIS	155	Basic Web Page Design	1
CIS	171	Computer Graphics	3
CIS	172	Photoshop	3
CIS	173	Graphics and Animation	3
CIS	174	HTML**	3
CIS	176	Web Development I	3
CIS	180	Introduction to Programming	3
CIS	187	Java Programming I	3
CIS	257	Electronic Publishing	3
CIS	259	Current Web/Graphic Technology	3
Total Credits			**30**

**CIS 155 and CIS 161 together may be substituted for CIS 174

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science degree in Web Design by completing at least 27 semester credits of program-related coursework. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option.

Students must meet all institutional requirement for the Associate in Applied Science degree.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Web Designer program is prepared to work as a:

- Web coder
- Web designer
- Webmaster
- Web support worker

Web Development and Administration

For more computer classes, see:

Computer Information Systems

Graphic Communications

Office Administration and Technology

Network Design and Administration

Web Designer

Coordinator/Faculty: Nikki Hensley, ext. 5382

Faculty: Beth Burns

Dean: Janet Fontenot

The Web Development and Administration program provides the technical skills and knowledge required for the design, development and maintenance of websites and services. Students completing the program may be responsible for all technical aspects of a website, including performance issues. In addition to Web-specific applications, instruction includes commonly used programming languages, operating systems and software packages.

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0011)

First Year

Fall Semester			**Semester Credits**
CIS	125	Operating Systems Basics	1
CIS	174	HTML	3
CIS	180	Introduction to Programming	3
CIS	195	Introduction to Databases	3
NETW	101	Introduction to Networking	3
ENG	101	Rhetoric & Composition I	3
Total Semester Credits			**16**

Spring Semester			**Semester Credits**
CIS	177	JavaScript Programming I	3
CIS	187	Java Programming I	3
CIS	259	Current Web/Graphic Technology	3
NETW	188	Server I	3
Web Elective			3
Humanities OR Social Science Elective			3
Total Semester Credits			**18**

Second Year

Fall Semester			**Semester Credits**
CIS	212	Intro to XML	3
CIS	287	Java Programming II	3
CIS	288	JSP	3
Web Elective			3
Math Elective**			3
Humanities OR Social Science Elective			3
Total Semester Credits			**18**

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Spring Semester			**Semester Credits**
CIS	277	jQuery	3
CIS	256	Web Site Development	3
CIS	296	Web and Graphics Internship	3
English or Journalism Elective			3
Human Well-Being Elective			2
Communications/Humanities/Social Science/ Human Well-Being Elective			1-3
Total Semester Credits			**15-17**

Total Program Credits **67-69**

The following are approved Web Electives

CIS	172	Photoshop	3
CIS	176	Web Development I	3
CIS	210	Web Design & Usability	3
CIS	252	C# Programming I	3
CIS	264	ASP	3
CIS	274	Android Mobile Development	3
CIS	275	SQL	3
CIS	299	Special Topics	3
NETW	182	Linux Operating System	3
NETW	271	Network Security	3

All students must complete graduation requirements listed in the front of the blues pages of this catalog for an Associate in Applied Science degree including the requirement for Human Relations course work.

**Math Elective MGMT 102 or MATH 107 or higher

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Certificate Programs

Web Coding (011D)

Students completing the Web Coding Certificate will learn software and coding principles required to construct websites. Emphasis will be placed on good HTML coding techniques. Students will learn to code for specific browsers and will learn how to include animation and sound on websites.

CIS	174	HTML**	3
CIS	176	Web Development I	3
CIS	177	JavaScript Programming I	3
CIS	180	Introduction to Programming	3
CIS	187	Java Programming I	3
CIS	195	Introduction to Databases	3
CIS	212	Introduction to XML	3
CIS	256	Web Site Development	3
CIS	259	Current Web/Graphic Technology	3
CIS	288	JSP	3
Total Credits			**30**

**CIS 155 and CIS 161 together may be substituted for CIS 174

Web Design (011E)

Students completing the Web Design Certificate will learn software and design principles required to construct websites. Emphasis will be given to graphics, colors, tiles, image maps, rollovers, navigation bars, alignment, composition, Web typography and the use of HTML editors. Students will learn to design for specific browsers and will learn how to include animation and sound on websites.

CIS	147	Fonts & Type	2
CIS	155	Basic Web Page Design	1
CIS	171	Computer Graphics	3
CIS	172	Photoshop	3
CIS	173	Graphics and Animation	3
CIS	174	HTML**	3
CIS	176	Web Development I	3
CIS	180	Introduction to Programming	3
CIS	187	Java Programming I	3
CIS	257	Electronic Publishing	3
CIS	259	Current Web/Graphic Technology	3
Total Credits			**30**

**CIS 155 and CIS 161 together may be substituted for CIS 174

Java Programming Certificate (011F)

Students completing the Java Programming Certificate will learn the basic concepts and skills necessary to create programs using the Java Programming language. Programs will include various control structures and techniques used in creating interactive programs for the Web. Object-oriented programming techniques will be used. Students will establish a Java programming environment using Sun's Java Software Development Kit. Students will establish a Web server environment using Apache's Tomcat Servlet engine and students will be introduced to the Eclipse IDE.

CIS	187	Java Programming I	3
CIS	287	Java Programming II	3
Total Credits			**6**

Accelerated Degree Option

Anyone who has completed an associate or bachelor's degree from a regionally accredited college may earn an Associate in Applied Science Degree in Web Development and Administration by completing at least 27 semester credits of program related course work. A plan of specific courses required for the degree must be obtained from the program coordinator and approved by the dean of the Business Division and the vice president for Instruction. Only those courses completed at SWIC, and not included as part of the requirements for a previously earned degree or certificate, can be considered for this option. Students must meet all institutional requirements for the Associate in Applied Science degree.

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Web Development and Administration program is prepared to work as a:

- Webmaster
- Web administrator
- Web coder
- Web designer
- Web developer
- Web support worker
- Computer programmer
- Web manager

Welding Technology

Coordinator/Faculty: Charles Gulash, ext. 5377
email: charles.gulash@swic.edu

Faculty: Kevin Corgan

Dean: Bradley Sparks

The Welding Technology program prepares welders, burners and related personnel to meet the needs of area and national industry. Emphasis is on practice and principles necessary for industry. SWIC follows American Welding Society Level I and II National Standards. In addition to the Associate in Applied Science degree that can be earned at SWIC, the student can earn a bachelor's degree by transferring to Ferris State University. **See the program coordinator or an academic advisor for more information.**

Important Information

The following semester sequence is designed as a guide for students enrolled full time and is not intended as a required schedule. Students should take courses in progression following the appropriate requisites. For information on requisites, please refer to the *Course Description Guide* (yellow section) in this catalog.

Associate in Applied Science Degree (0062)

First Year

Fall Semester			**Semester Credits**
CMT	244	Occupational Safety & Health I	3
HES	151	Personal Health and Wellness	2
WLDT	101	Introduction to Welding	6
WLDT	106	Weld Fabrication Blueprint Reading	3
GT	105	Introduction to Technical Mathematics **OR**	4
MATH	112	College Algebra **OR** higher level Math	
Total Semester Credits			**18**

Spring Semester			**Semester Credits**
ENG	101	Rhetoric & Composition I	3
MGMT	213	Human Relations in the Workplace **OR**	
MGMT	214	Principles of Management **OR**	
MGMT	221	Fundamentals of Labor Relations	3
WLDT	152	All Position Arc Welding	5
WLDT	107	Adv. Blueprint Reading	2
Humanities **OR** Social Science Course			3
Total Semester Credits			**16**

Second Year

Fall Semester			**Semester Credits**
WLDT	201	Advanced Arc Welding	6
Communications Course **OR**			3
ENG	103	Technical Communication	
Human Relations Course			3
Technical Electives*			5
Total Semester Credits			**17**

Spring Semester			**Semester Credits**
WLDT	252	Pipe Welding	4
WLDT	253	GTAW/GMAW/FCAW/PAC	4
WLDT	254	Testing and Inspection of Welds	3
WLDT	255	Layout and Fitup for Welders	3
Technical Electives*			5
Total Semester Credits			**19**

Total Program Credits	**70**

*Any course with a CAD, CMT, EET, HVAR, IDP, IML, PMT or WLDT prefix

Apply for Graduation Now

Certificate Programs

The Welding Technology Certificate program is designed to train the beginner for entry-level positions in the welding industry and to also offer more advanced technical information and skill for the employed welder. High school articulation available.

Welding Technology Certificate (062A)

WLDT	101	Introduction to Welding	6
WLDT	106	Weld Fabrication Blueprint Reading	3
WLDT	152	All Position ARC Welding	5
Total Credits			**14**

Welding Technology Advanced Certificate (062B)

WLDT	107	Advanced Blueprint Reading	2
WLDT	201	Advanced ARC Welding	6
WLDT	253	GTAW/GMAW/FCAW/PAC	4
Total Credits			**12**

Welding Technology Specialized Certificate (062C)

WLDT	252	Pipe Welding	4
WLDT	254	Testing and Inspection of Welds	3
WLDT	255	Layout and Fitup for Welders	3
Total Credits			**10**

Advanced Welding Manufacturing (062D)

WLDT	260	Welding Automation	5
WLDT	270	Robotic Welding & CNC Cutting	5
Total Credits			**10**

Some courses may have requisites. Refer to the *Course Description Guide* beginning on page 246.

Career Opportunities

A graduate of the Welding program is prepared to work as a:

- Welder
- Fitter
- Welding inspector
- Welding technician
- Layout position