www.sc4.edu

St. Clair County Community College

Choose success.

2012-2013 Catalog

Port Huron, Michigan

Notice of Nondiscriminatory Policy

St. Clair County Community College is an equal opportunity institution and complies with all federal and state laws and regulations prohibiting discrimination. It is the policy of St. Clair County Community College that no person shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, height, weight, handicap, or any other criteria prohibited by law in its academic and vocational programs, activities, admissions, financial assistance or employment.

To implement this policy, the Board of Trustees has designated the Executive Director of Human Resources and Labor Relations to be the enforcement officer for receiving complaints and for reviewing the college's compliance.

Executive Director of Human Resources and Labor Relations
Title VI, Title IX and Section 504 Coordinator
St. Clair County Community College
323 Erie St., P.O. Box 5015
Port Huron, MI 48061-5015
(810) 989-5536 or (800) 553-2427

Notice of Program Requirements

This catalog describes the requirements for your program, certificate, or degree. It is important that you retain this catalog as your official record of these requirements.

This catalog belongs to:_____

Date of admission:_____

Published June 2012

While every effort is made to publish accurate information, the catalog cannot reflect changes made after its publication. Subsequent changes to better meet the needs of students and the community may become necessary. For the most current version of degrees/certificates, programs of study, and courses, refer to the St. Clair County Community College website.

St. Clair County Community College

CATALOG

2012-2013

For enrollment information:
(810) 989-5500 or (800) 553-2427
enrollment@sc4.edu
www.sc4.edu

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St. Clair County Community College
CATALOG 2012-2013

2012−2013 ACADEMIC CALENDAR

2012 SUMMER SESSION

June 25	Classes Begin
July 4	Independence Day Holiday − No Classes
August 3	Summer Session Ends
August 6	Final Grades Due − 4 p.m.

2012 FALL SEMESTER

August 15	New Faculty Report
August 17	All Faculty Report
August 27	Classes Begin
September 3	Labor Day Holiday − No Classes
October 8	Early Alert Grades Due − 4 p.m.
November 21	Thanksgiving Holiday Begins − No Classes
November 26	Classes Resume
December 17	Finals Begin
December 21	Fall Semester Ends
December 22	Final Grades Due − noon

2013 WINTER SEMESTER

January 10	All Faculty Report − In-Service
January 11	All Faculty Report
January 14	Classes Begin
February 25	Early Alert Grades Due − 4 p.m.
March 11	Spring Break Begins − No Classes
March 18	Classes Resume
May 6	Finals Begin
May 10	Commencement
May 10	Winter Semester Ends
May 13	Final Grades Due − 4 p.m.

2013 SPRING SESSION

May 20	Classes Begin
May 27	Memorial Day Holiday − No Classes
June 28	Spring Session Ends
July 1	Final Grades Due − 4 p.m.

This calendar applies to all instructional divisions and departments of the college, on-campus and off-campus, with the following exceptions: In fall semester, no class which is scheduled to fulfill all its weekly requirements of contact hours on Tuesday shall be required either to schedule or meet more than sixteen Tuesdays, and Weekend College classes are excluded from this calendar.

St. Clair County
Community College

COLLEGE OVERVIEW

COLLEGE OVERVIEW

ACCREDITATION

St. Clair County Community College is accredited by The Higher Learning Commission and is a member of the North Central Association of Colleges and Schools (www.ncahigherlearningcommission.org or (312) 263−0456), the recognized regional accreditation agency. The college is a member of the American Association of Community Colleges.

The college has been approved by U.S. Immigration and Customs Enforcement for the training of non-quota, alien students admitted under Section 4(e) of the Immigration Act of 1924.

Contact the Office of the College President if you wish to review the Statement of Affiliation Status.

ACCREDITING AGENCIES

The Higher Learning Commission; Member – North Central Association; Michigan Department of Education.

ASSESSMENT OF STUDENT LEARNING

St. Clair County Community College is committed to excellence in education. To ensure this excellence, the college has instituted a plan to assess student learning and to analyze the college's impact on its students to improve teaching and learning. The various procedures used in the assessment plan are designed to gather information and will not affect an individual student's progress in his/her program, grades and/or graduation.

HISTORY

St. Clair County Community College began as Port Huron Junior College, which was the Junior College Department of the Port Huron School District. The college was established by act of the Board of Education of the Port Huron School District under Michigan State Law in 1923 and began operation in the same year. It has continued without interruption since that time.

The St. Clair County Community College District was established by a vote of the people June 12, 1967, which transformed the former Port Huron Junior College into a county-wide community college. Final approval of the transfer was given by the Michigan State Board of Education, which authorized an effective day of January 1, 1968.

The parent institution, Port Huron Junior College, had developed a tradition of academic excellence beginning with its establishment in 1923. The college first received its accreditation from the North Central Association in 1931, and at the same time, from universities throughout the United States and foreign countries. A transfer of this accreditation was made by the North Central Association during the 1968-69 school year to the community college.

During its early years, the college program was largely academic. Since 1954, a variety of programs of a vocational-technical nature have been established.

COLLEGE CAMPUS AND BUILDINGS

St. Clair County Community College's 25-acre main campus is in downtown Port Huron.

The historic **Main Building (MB)** is home to most of the college's administrative offices. The four-story Main Building also includes classrooms and offices for several academic departments.

The **North Building (NB)** includes the gymnasium, which is used for intercollegiate athletics, intramural sports and physical education classes; offices for several academic departments; and classrooms.

The **Clara E. Mackenzie Building (CEM)** houses science labs, classrooms, faculty offices and a lecture hall.

The **A.J. Theisen Building (AJT)** includes classrooms and computer labs for communication design and computer and office technology, as well as faculty offices and the college's Office of Information Technology.

The **College Center (CC)** houses the Library, Achievement Center, disability services, cafe and multipurpose areas for meetings and events.

The **Fine Arts Building (FAB)** includes the Fine Arts Theatre, Fine Arts Galleries, television and radio studios, music practice rooms, a band and choir rehearsal hall, and separate areas devoted to art and communications media programs.

The Dr. Edward G. **Acheson Technology Center (ATC)** houses labs, classrooms, faculty offices and the One-stop Student Services Center to assist students with all functions related to the enrollment process, including admissions, registration, financial aid, advising and payments.

The **Citizens First Michigan Technical Education Center (M-TEC)** is a facility for business and industry training. The building houses computer labs, multi-media classrooms, corporate meeting rooms and event space. M-TEC is also home to the SC4 University Center, a child care center operated by the Community Action Agency of St. Clair County and the offices of Economic Development Alliance of St. Clair County.

MEMBERSHIPS AND AFFILIATIONS

- Achieving the Dream: Community Colleges Count
- American Association of Community Colleges
- American College & University Presidents' Climate Commitment
- American Council on Education
- Association of Community College Trustees
- Community College Baccalaureate Association
- Council for Higher Education Accreditation
- League for Innovation in the Community College
- Michigan Community College Association
- Michigan Community College Athletic Association
- Michigan Community College Virtual Learning Collaborative
- National Institute for Staff and Organizational Development
- National Junior College Athletic Association
- The Higher Learning Commission; North Central Association
- State of Michigan Board of Nursing

MISSION AND VISION

Mission Statement

St. Clair County Community College provides lifelong educational and enrichment opportunities.

Vision Statement

St. Clair County Community College strives to be a leader in our community's renaissance by establishing dynamic partnerships and focused programs that are the top choice for students.

OFF-CAMPUS CENTERS

215 Main Building (MB), (810) 989-5747

OFF-CAMPUS INSTRUCTION

The college offers students the opportunity to complete degree requirements in a variety of programs at off-campus centers throughout the region.

Algonac High School
5200 Taft Road (Clay Township)
Algonac, MI 48001

Croswell-Lexington College Center
15 S. Howard Ave.
Croswell, MI 48422

Sanilac Career Center
175 E. Aitken Road (Elk Township)
Peck, MI 48466

Yale High School
247 School Drive
Yale, MI 48097

UNIVERSITY CENTER

Citizens First Michigan Technical Education Center
(810) 989-5808
www.sc4.edu/universities

The SC4 University Center is located in the Citizens First Michigan Technical Education Center on the downtown Port Huron campus of St. Clair County Community College. Hundreds of local students enjoy the chance to work on bachelor's degrees locally through the center.

FERRIS STATE UNIVERSITY
Coordinator: Deborah Thalner
- **Bachelor of Science in Business Administration − Professional Track in Hospitality and Tourism**
- **Bachelor of Science in Criminal Justice**

MADONNA UNIVERSITY
Coordinator: Diane Lovett
- **Bachelor of Science in Child Development − Early Childhood Education Minor (tied with teacher certification)**

SAGINAW VALLEY STATE UNIVERSITY
Coordinator: Susan Wood
- **Bachelor of Arts in Elementary Education**
- **Elementary Teacher Certification**
- **Secondary Teacher Certification**

UNIVERSITY OF MICHIGAN − FLINT
Coordinator: Tiffny Rohner
- **Bachelor of Arts in Psychology**
- **Bachelor of Science in Nursing (RN to BSN)**

WALSH COLLEGE
Coordinator: Karen Mahaffy
- **Bachelor of Business Administration in Accounting Processes**
- **Bachelor of Business Administration in Management**

SC2O JOINT ADMISSION PROGRAM

(810) 989-5520
www.oakland.edu/sc20

Students can earn their associate degree at SC4, while working toward their bachelor's degree at Oakland University. Students with 32 or fewer college credits will be considered for admission.

The program offers:

- Joint admission to SC4 and Oakland University through one, free application.
- Flexibility to take courses at SC4 and Oakland University at the same time.
- Coordinated financial aid at both institutions.
- Expanded course selection.
- Coordinated advising and course planning.
- Timely completion of associate and bachelor's degrees.
- Access to the on-campus resources of both institutions, including housing at Oakland University.

WORKFORCE DEVELOPMENT CENTER

(810) 989-5788
Fax: (810) 989-5738
workforce@sc4.edu

The Workforce Development Center is devoted to providing its clients with the training needed for a lifetime of gainful employment. Through entry-level programs and customized contract training, the center provides outstanding cost-effective training solutions and educational services to enhance skills, increase productivity and improve work-force quality.

Workforce Development Center customers include employers, employed workers, unemployed and underemployed workers, and adults seeking foundational skills, career development and industry certifications.

EMPLOYER SOLUTIONS FOR BUSINESSES

Customized Contract Training
SC4 can provide customized training solutions to fill employee skill gaps and increase productivity. At your convenience, training can be delivered on your job site or on the Port Huron campus.

Topic areas include:

- Allied Health
- Industrial Manufacturing
- Information Technology
- Professional Management
- Public Safety and Fire Services

Registration options are flexible and include online at www.sc4.edu/wave, by fax at (810) 989-5738, walk-in or by phone at (810) 989-5788. More information is available at www.sc4.edu/workforce.

St. Clair County
Community College

COLLEGE PROGRAMS OF STUDY

& GRADUATION REQUIREMENTS

Associate Degrees and Transfer Programs

Associate in Applied Arts and Science Degree and Certificate Program Guides

COLLEGE PROGRAMS OF STUDY

St. Clair County Community College provides a solid educational foundation to help students pursue career goals in any field.

There are many ways to earn college credit at SC4. Students may choose to obtain transfer credit toward a four-year degree, earn an associate degree in a career-related area, or obtain a certificate that can be applied toward a degree program while preparing for employment.

Whatever students choose to study, they are urged to plan their program with an SC4 advisor. Programs of study fall into two major categories − transfer and career.

TRANSFER PROGRAMS
Transfer programs are designed to prepare students who plan to transfer to four-year colleges and universities after completing their coursework at SC4.

Programs designed for transfer toward bachelor's degrees are:

- Associate in Arts
- Associate in Science
- Associate in Business (transfer)
- Associate in Engineering (transfer)
- Certificate in General Transfer Studies (MACRAO)

CAREER PROGRAMS
Career programs are designed to prepare students for entry into a specific job-related field, for advancement in a current job, or for making a career change. Many career courses and programs will transfer to other colleges and universities. See an SC4 advisor for additional information.

Associate in Applied Arts and Science − occupational degrees
Certificates − occupational certificate programs

UNDECIDED PROGRAMS
Many students come to college undecided about their future career. These students often pursue a program of study designed to earn basic credits, allowing them to make progress while they explore their options with career guidance experts at the college.

- Associate in General Education

REQUIREMENTS FOR GRADUATION

CERTIFICATE PROGRAMS

Students must satisfy the following criteria to be granted a certificate from SC4:

1. Complete the specific **certificate program requirements** as listed in this catalog.
2. Complete a minimum of 30 credit hours 100-level or higher (credit hour requirements vary by program) with a GPA of 2.0 or above.
3. Complete a minimum of 10 credits at SC4 or through the Michigan Community College Virtual Learning Collaborative (MCCVLC).

ASSOCIATE DEGREES

Students must satisfy the following criteria to be granted an associate degree from SC4:

1. Complete the specific **associate degree program requirements** as listed in this catalog.
2. Complete a minimum of 62 credit hours 100-level or higher (credit hour requirements vary by program) with a GPA of 2.0 or above.
3. Complete a minimum of 15 credits at SC4 or through the Michigan Community College Virtual Learning Collaborative.
4. Complete all **Competency Requirements** (degree specific) with a final grade of “C” or above.
5. Complete all **Degree Distribution Requirements** (degree specific).

NOTE: Classes with a designation of less than 100 (e.g., MTH 075) may not be used for graduation credit. These classes also do not transfer to other colleges and universities.

COMPETENCY REQUIREMENTS

To prepare students to compete in a changing society, SC4 requires successful completion (C or above) of competencies in seven categories for all associate degrees granted. Definitions of the competencies are listed following this section. Competencies are required in the following categories:

- Computer Literacy (CL)
- Critical Thinking (CT) − 2 courses required
- Global Awareness (GA) − 2 courses required
- Government and the Political Process (GP)
- Mathematics (MA)
- Oral Communication (OC)
- Writing (WR) − 2 courses required

The competencies specific to each associate degree program are as follows:

Associate Degree Competency Requirements
Honors courses (i.e. ENG 101H, HIS 101H, PS 101H, etc.) may also be used.

ASSOC. DEGREE	CL	CT 2 required	GA 2 required	GP	MA	OC	WR 2 required
Assoc. in Arts (AA)	CIS 115	See list on next page	See list on next page	PS 101	MTH 110 or higher	SPC 101	ENG 101 ENG 102
Assoc. in Business (AB) *Transfer Program*	CIS 115	MTH 102 or above or BUS 158, BUS 221 or BUS 222	BUS 221 BUS 222	PS 101	MTH 102 or higher or BUS 158	SPC 101	ENG 101 ENG 102
Assoc. in Engineering (AE)	CIS 115	MTH 114 MTH 215	See list on next page	PS 101	MTH 114 or higher	SPC 101	ENG 101 ENG 102
Assoc. in General Education (AGE)	CIS 115	See list on next page	See list on next page	PS 101	MTH 102 or higher	SPC 101	ENG 101 ENG 102
Assoc. in Science (AS)	CIS 115	See list on next page	See list on next page	PS 101	MTH 113 or higher	SPC 101	ENG 101 ENG 102
Assoc. in Applied Arts & Sciences (AAS)	See Program Guides						

Computer Literacy (CL)

ACD 120 ACD 240 CIS 115	CIS 202 CIS 205 ELT 236	EG 162 MFT 211 OA 115	OA 157 OA 257	IA 102 IA 201

Critical Thinking (CT) − Select any **two** of the courses listed below.

ANT 171 ACD 110 BIO 100 BIO 270 BUS 153 BUS 158 BUS 221 BUS 221H BUS 222 BUS 222H BUS 270 BUS 271	CM 101 CIS 260 CIS 284 CIS 286 ELT 236 ENG 207 ENG 208 ENG 210 ENG 211 ENG 212 ENG 220 ENG 221	ENG 244 ENG 246 ENG 249 ENG 252 HIS 131 HIT 102 HIT 104 MTH 102 MTH 104 MTH 105 MTH 106 MTH 110	MTH 111 MTH 112 MTH 113 MTH 114 MTH 120 MTH 210 MTH 215 MTH 216 MTH 217 OA 161 OA 262 PHL 210	PHL 213 PHL 215 PHL 220 PHS 131 PS 230 PSY 170 PSY 180 SOC 101H SOC 110 SOC 201 SOC 210

Global Awareness (GA) − Select any **two** of the courses listed below.

ANT 171 ART 121 ART 122 ART 123 BUS 150 BUS 221 BUS 221H BUS 222 BUS 222H EG 115	ENG 205 ENG 206 ENG 208 ENG 230 ENG 231 ENG 243 ENG 244 FR 101 FR 102 FR 203	FR 204 FR 257 GEO 102 GEO 137 GEO 233 GR 101 GR 102 GR 203 GR 204 HIS 101	HIS 101H HIS 102 HIS 102H HIS 149 HIS 150 HIT 104 MFT 111 MUS 230 MUS 231 PHL 220	PS 101 PS 101H PS 150 PS 230 SOC 101 SOC 101H SOC 201 ELT 130A, ELT 130B and ELT 131 together equal one **GA** competency

Government and the Political Process (GP)

HIS 149 and HIS 150 together equal one **GP** competency	PS 101 PS 101H	PS 210 and PS 220 together equal one **GP** competency

Mathematics (MA)

BUS 158 HE 101 MTH 102 MTH 104	MTH 105 MTH 106 MTH 110	MTH 111 MTH 112 MTH113	MTH 114 MTH 120 MTH 210	MTH 215 MTH 216 MTH 217

Oral Communication (OC)

BUS 181 BUS 270 BUS 271 HIT 202	OA 161 OA 225 QA 117 SD 120	SPC 101 SPC 101H THA 105	ELT 231 and ELT 236 together equal one **OC** competency

Writing (WR)

ENG 101 requirement	**Second writing requirement**	
ENG 101 ENG 101H ENG 101T	ENG 102 ENG 102H	

COMPETENCY DEFINITIONS

Upon completion of an associate degree at SC4, a student will have met all of the competencies as listed:

1. **COMPUTER LITERACY (CL)** − is the ability to use a computer at a level appropriate to a student's academic and career needs. **Outcomes:** 1. Software: a. Demonstrate proficiency in the use of at least one computer operating system, including file organization. b. Demonstrate proficiency in using major categories of computer software, such as word processing, spreadsheet, database and presentation software. Graduating students must also meet **at least two** of the following outcomes: 2. Hardware: Examine the use of common hardware used for input, output, processing and storage. 3. Information: Formulate effective strategies to access, retrieve and analyze electronic information utilizing computer technology. 4. Communications: Organize electronic communications by using email to exchange electronic information, share files and retain important correspondence. 5. Security: Design a plan to protect a computer user from malicious code and threats to user privacy which includes the implementation of various computer security software and personal protection strategies.
2. **CRITICAL THINKING (CT)** − is an active process of carefully examining our thinking and the thinking of others in order to clarify and improve our understanding of ourselves and the world. **Outcomes:** 1. Demonstrate ability to recognize biases and assumptions, evaluate the reliability of evidence and determine whether the evidence available can support some generalization(s). 2. Demonstrate ability to distinguish fact from opinion, determine the validity of reasoning, and make informed judgments and decisions. 3. Demonstrate an attitude of intellectual curiosity and skepticism, objectivity and open-mindedness, and flexibility to consider new ideas and different viewpoints.
3. **GLOBAL AWARENESS (GA)** − gives the students a multi-cultural perspective; that is, students gain a measure of understanding about the cultures of other societies. In placing their own cultural assumptions in the context of an interdependent and diversified world view, students learn to respect different peoples and their lifestyles. **Outcomes:** 1. Demonstrate knowledge of at least one cultural aspect of at least two non-U.S. societies. 2. Demonstrate an awareness of the interdependence of nations in respect to current global issues.

4. **GOVERNMENT AND THE POLITICAL PROCESS (GP)** − is the study of the organization and functioning of governmental and political systems. **Outcomes:** 1. Demonstrate knowledge of the structure and functioning of the U.S., Michigan and local governments. 2. Demonstrate knowledge of the U.S. political system and electoral process. 3. Demonstrate knowledge of the rights and responsibilities of U.S. citizens. 4. Demonstrate an understanding of international organizations and interrelationships.

5. **MATHEMATICS (MA)** − is the logical study of shape, arrangement, quantity and space, and their inter-relationships, applications, generalizations and abstractions. **Outcomes:** 1. Express numerical concepts symbolically, and translate word problems into algebraic representations. 2. Recognize the deductive nature of mathematics. 3. Locate and employ information from graphs to make decisions. 4. Recognize the applicability of mathematics to other disciplines. 5. Express mathematical conclusions verbally or in writing. 6. Employ problem-solving strategies, including numerical and other approaches. 7. Estimate answers and access the relative worth of the estimate from a common sense perspective.

6. **ORAL COMMUNICATION (OC)** − is the process of effectively transmitting and receiving ideas and information in a variety of situations. **Outcomes:** 1. Express ideas and knowledge in a manner others can understand. 2. Demonstrate ability to select a topic and organize a presentation with supporting material appropriate for purpose, audience and occasion. 3. Use pronunciations, grammar and articulation appropriate to audience and occasion. 4. Use nonverbal cues as necessary to support the verbal message. 5. Listen effectively.

7. **WRITING (WR)** − is a process of effectively selecting, developing, arranging and revising one's own ideas and those of others. The process requires students to compose ideas in a variety of written forms for a variety of purposes and audiences. **Outcomes:** 1. Demonstrate ability to select, organize and develop ideas in coherent essays and/or other written forms suitable for college work. 2. Demonstrate ability to vary writing style, including vocabulary and sentence structure for a variety of rhetorical situations. 3. Demonstrate ability to locate and gather information from primary and secondary sources and incorporate quotation, paraphrase and summary from such sources into a properly documented paper. 4. Demonstrate ability to write informative, interpretative, analytical and/or evaluative essays.

5. Demonstrate ability to write standard English using appropriate grammar, punctuation and spelling.

8. **ADDITIONAL COMPETENCY OPTIONS** − SC4 recognizes a variety of non-course options, including Advanced Placement, CLEP and Departmental Exams, which allow students to satisfy the competency requirements without taking an actual SC4 course. **Interested students must contact the Student Success Center, Room 124, Acheson Technology Center, for details.** The following list indicates the options currently available to satisfy each competency.

Competency	AP *(3 or above)*	CLEP *(50 or above)*	Department Exam
CL	NO	NO	YES
CT	YES	YES	YES
GA	YES	YES	YES
GP	YES	YES	YES
MA	YES	YES	YES
OC	NO	NO	NO
WR	YES	YES*	NO

*Essay required for ENG 101 credit.

DEGREE DISTRIBUTION REQUIREMENTS

In addition to the satisfactory completion of competency requirements, students must satisfy the degree distribution requirements specific to the program of study at SC4. Subject areas satisfying the Degree Distribution Requirements are divided into four groups as listed below:

Group I. Social Science: Anthropology, economics, geography (except GEO 101, GEO 105, GEO 137 and GEO 210), history, political science, psychology, sociology

Group II. Humanities: Literature (English 200 or above), foreign language, speech, art, communication design, music, theatre, philosophy, HIS 101, HIS 102

Group III. Biological Sciences: Agriculture, biology

Group IV. Physical Sciences: Astronomy, chemistry, earth science (GEO 101), meteorology (GEO 105), geology, global energy resources (GEO 137), physics, physical science

Associate Degree Distribution Requirements

ASSOC. DEGREE	Group I. Social Science	Group II. Humanities	Group III. Bio. Science	Group IV. Phys. Science
Assoc. in Arts (AA)	8 credit hours	8 credit hours	6 – 8 cr. hrs. Must complete at least one lab course from Group III or IV.	
Assoc. in Business (AB) (Transfer Program)	See Program Guide	See Program Guide	See Program Guide	See Program Guide
Assoc. in Engineering (AE)	See Program Guide	See Program Guide	See Program Guide	See Program Guide
Assoc. in General Education (AGE)	3 credit hours	3 credit hours	3 – 4 cr. hrs. Must complete one lab course from Group III or IV.	
Assoc. in Science (AS)	8 credit hours	8 credit hours	18 cr. hrs. required. Must complete at least one lab course from both Group III and IV.	
Assoc. in Applied Arts and Sciences (AAS)	See Program Guides			

GRADUATION WORKSHEET

(For Associate Degree in Arts, General Education, or Science)

ASSOCIATE IN: _____

☐ **Group I.**
SOC. SCIENCE (___ Credits Required)
_____ Anthropology
_____ Economics (BUS 221 or 222)
_____ Geography (not GEO 101, 105, 137 or 210)
_____ History
_____ Political Science
_____ Psychology
_____ Sociology

☐ **Group II.**
HUMANITIES (___ Credits Required)
_____ Literature (ENG 200 or higher)
_____ Modern Language
_____ Speech
_____ Art (or ACD)
_____ Music
_____ Theatre
_____ Philosophy
_____ History 101, 102 only

☐ **Group III.**
BIO. SCIENCE (___ Credits Required)
_____ Agriculture
_____ Biology (BIO 100 or higher)

☐ **Group IV.**
PHYS. SCIENCE (___ Credits Required)
_____ Astronomy
_____ Chemistry
_____ Earth Science (GEO 101)
_____ Meteorology (GEO 105)
_____ Geology
_____ Global Energy Resources (GEO 137)
_____ Natural Resources (NTR 100)
_____ Physics
_____ Physical Science

☐ **Group V.**
MATHEMATICS (___ Credits Required)
_____ AA = MTH 110 or higher
_____ AGE = MTH 102 or higher
_____ AS = MTH 113 or higher

☐ **Group VI.**
ENGLISH (___ Credits Required)
_____ ENG 101 requirement
_____ Second writing requirement

Check the box below as you complete (must be a grade of "C" or higher) the required competency courses.

In addition, students must satisfy the degree distribution requirements and earn a minimum of 62 credits with a 2.0 GPA or above.

COMPETENCY REQUIREMENTS

CL= _____ ☐

GP= _____ ☐

OC= _____ ☐

*WR= _____ ☐

_____ ☐

MA= _____ ☐

*CT= _____ ☐

_____ ☐

*GA= _____ ☐

_____ ☐

*For WR, CT and GA you must select 2 courses from each group.

Associate Degree Distribution Requirements

Associate Degree	Group I. Soc. Science	Group II. Humanities	Group III. Bio. Science	Group IV. Phys. Science
AA	8 cr. hrs.	8 cr. hrs.	6-8 cr. hrs. Must complete at least 1 lab course from Group III or IV.	
AGE	3 cr. hrs.	3 cr. hrs.	3-4 cr. hrs. Must complete 1 lab course from Group III or IV.	
AS	8 cr. hrs.	8 cr. hrs.	18 cr. hrs. Must complete at least one lab course from both Group III and IV.	

HONORS PROGRAM DEGREE OPTION

The St. Clair County Community College Honors Program is designed to satisfy the needs of students who are hard-working and self-motivated, are curious and appreciate exploring a topic in depth, and enjoy strong interaction with instructors and fellow students. A student may earn an Honors degree in any associate degree program.

BENEFITS

- Honors degree if program is completed
- Greater academic challenges
- Recognition for outstanding achievement
- Greater depth in subject matter
- More stimulating course work with greater interaction
- Honors options in regular courses
- New honors courses
- Smaller class size
- Honors Program credential on transcript

ADMISSION REQUIREMENTS

- Be enrolled at St. Clair County Community College.
- Fill out the Honors Program application form, available at www.sc4.edu/honors.

Program admission criteria:

- One of the following minimums for admission:
    - ACT Composite score of 25
    - Minimum Writing COMPASS score of 95
    - 3.2 high school GPA (on a 4.0 scale)

    OR

- Two of the following minimums for admission:
    - ACT Math score of 24
    - ACT Writing score of 25
    - College Algebra COMPASS score of 46
    - GED score of 55
    - GPA at SC4 or other college
    - Membership in National Honor Society in high school
    - Recommendation by Honors Program director, advisor or faculty

PROGRAM REQUIREMENTS

- To remain in good standing in the honors program, a student must maintain a 3.00 overall GPA and receive at least a “B” in each honors class.
- To receive the honors associate degree, a student in the honors program must receive a grade of at least a “B” in four different honors courses and complete all other degree requirements with an overall GPA of 3.00 or better.
- If a student falls below a 3.00 GPA or receives less than a “B” in an honors course, he/she will be placed on program probation for one semester. During that semester, the student may take, with permission, an honors course and must regain a 3.00 GPA by the end of that probationary semester to remain in the program.
    - If the student received less than a “B” in an honors course, he/she must retake the honors course or designate a replacement honors course after the probationary semester.
    - If the probationary student fails to regain a 3.00 after one semester or fails to obtain a “B” grade in an honors course after the probationary semester, he/she will be dropped from the honors program.
    - If no honors course suitable to the student’s curriculum is available after the probationary semester, a one semester waiver will be permitted before the original honors course must be retaken or a replacement course taken.
    - For good cause, the director, with the consent of the Honors Committee, will be permitted some discretion in the application of these guidelines.
- Any student who wishes to withdraw from the honors program may do so at any time without penalty. He/she may seek a regular associate degree.
- Any student who is dropped from the honors program may, of course, pursue a regular associate degree provided he/she fulfills the requirements.

SPECIAL NOTE: An honors option is available for non-honors courses. This option course can replace one of the regular honors courses. Provided the instructor is willing, the option would involve some special work within the regular course that the student, the instructor and the honors director agree is acceptable.

Return all completed forms to:
Honors Program Applications
Enrollment Services
St. Clair County Community College
323 Erie St., P.O. Box 5015
Port Huron, MI 48061-5015

TRANSFER PROGRAM INFORMATION

St. Clair County Community College provides the freshmen and sophomore courses needed to fulfill requirements for those students planning to transfer to a senior college or university to complete a bachelor's degree. Most transfer institutions prefer that students select courses leading to the Associate in Arts (AA), Science (AS), Engineering (AE) or Business (AB) degree. However, credits for the Associate in Applied Arts and Science (AAS) degrees may be transferred, depending upon the major area of study and the transfer institution of choice.

The transferability of SC4 courses may vary among transfer institutions. Therefore, it is important for transfer students to identify their transfer institution early in their freshman year.

TRANSFER OPTIONS

After completing the associate degree requirements, many SC4 students continue their career paths at four-year institutions in programs such as:

Accounting
Agricultural science
Animal science
Anthropology
Architectural engineering
Art
Automotive engineering
Biology
Broadcasting
Business administration
Chemical engineering
Chemistry
Child development
Civil engineering
Communication design
Computer science
Corrections
Counseling
Criminal justice
Economics
Education
Electrical engineering
English
Environmental science
Fine arts
Foreign language
Forestry
Geography
Geology
General business
Health care administration
History
Horticulture
Human development
Human resources
Journalism
Marketing
Math
Mechanical engineering
Medical records
Music
Nursing
Occupational therapy
Pharmacy
Philosophy
Physical therapy
Physics
Political science
Pre-dentistry
Pre-law
Pre-medicine
Psychology
Radiologic therapy
Social work
Sociology
Veterinary medicine

TRANSFER STUDENT TIPS

- Meet at least once per semester with an SC4 advisor before selecting courses to review transfer guides and articulation agreements.
- Contact the four-year institution(s) where you plan on transferring and consult the institution's website.
- Transfer institutions will typically accept 60 credit hours from SC4 and require a minimum 2.0 GPA; however, these requirements may vary by institution.
- View transfer equivalency information on the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) website at www.macrao.org or at www.michigantransfernetwork.org.
- Apply for admission to the four-year institution before the actual date you plan to transfer.
- A variety of applications are available in the Student Success Center or online at www.macrao.org.
- Have an official SC4 transcript mailed directly to the four-year institution. Requests may be made online via the WAVE at www.sc4.edu/wave or in the Enrollment Services office.
- Inquire about transfer scholarships in the SC4 Financial Aid office and/or by contacting the four-year institution.

BUSINESS (TRANSFER)

Program Code: ABTGB
ASSOCIATE IN BUSINESS (Transfer Program)
Business Administration Department (810) 989-5575

This program is intended for students wishing to pursue an associate degree while preparing to transfer to a four-year school in business. **Since transfer requirements vary by institution, students are strongly encouraged to meet with representatives from the transfer school.** In addition, students should work closely with the SC4 Business Administration Department and the Student Success Center.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GA GP**	3
SPC 101*	Speech Communication	**OC**	3
ACCT 189	College Accounting		3
	Elective		3
			15
2nd Semester			**Semester Hours**
CIS 115**	Microcomputer Applications	**CL**	4
ENG 102*	English Composition II	**WR**	3
MTH 102***	Elementary Algebra	**MA CT**	5
	Elective		3
			15

SECOND YEAR − 1st Semester			**Semester Hours**
BUS 221	Principles of Economics I	**CT GA**	3
ACCT 211	Principles of Accounting I		4
	Electives		9
			16
2nd Semester			**Semester Hours**
BUS 222	Principles of Economics II	**CT GA**	3
ACCT 212	Principles of Accounting II		4
	Electives		9
			16

Total Credit Hours/Total Contact Hours = 62/62

*ENG 102/SPC 101 or OA 225. Students choosing this option are still required to complete a minimum of 62 credits.
**or higher except CIS 150, CIS 160, CIS 290, CIS 297.
***or MTH 110 or higher or BUS 158. Students choosing this option are still required to complete a minimum of 62 credits.
Elective Courses: Elective course options may vary based upon the transfer institution. Please contact the Student Success Center at (810) 989-5520 or the SC4 Business Administration Department at (810) 989-5575 for assistance with selecting the appropriate elective courses.

ENGINEERING (TRANSFER)

Program Code: AETGE
ASSOCIATE IN ENGINEERING (Transfer Program)
Math and Science Department (810) 989-5663

This program is intended for students wishing to complete an associate degree while preparing to transfer to a four-year school to pursue a degree in engineering. Since transfer requirements vary by institution, students are strongly encouraged to meet with representatives from the transfer school. **In addition, students should work closely with the SC4 Math and Science Department and the Student Success Center.**

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
MTH 114	Calculus I	**MA CT**	4
CHM 111	Chemistry Theory and Principles with Analysis		5
ENG 101*	English Composition I	**WR**	3
EG 180	Engineering Graphics		4
PS 101	Introduction to Political Science	**GA GP**	3
			19
2nd Semester			**Semester Hours**
MTH 215	Calculus II	**MA CT**	4
CIS 150**	Programming Concepts		2
ENG 102***	English Composition II	**WR**	3
PHY 115	Introduction to Engineering		3
	Electives**** (select from approved list below)	**GA**	4
			16
SECOND YEAR − 1st Semester			**Semester Hours**
MTH 216	Calculus III	**MA CT**	4
MTH 210	Linear Algebra	**MA CT**	3
PHY 221	Mechanics, Heat and Sound		5
CIS 264	C++ Programming	**MA CT**	4
			16
2nd Semester			**Semester Hours**
MTH 217	Differential Equations	**MA CT**	4
PHY 222	Electricity, Light and Modern Physics		5
PHY 231*****	Statics		3
SPC 101	Speech Communications	**OC**	3
			12-15

Range Total Credit Hours/Range Total Contact Hours = 63-66/70-73

*ENG 101T − Introduction to Writing for Technical students may be substituted.
**or CIS 115.
***ENG 104 − Technical Report Writing may be substituted.
****Elective must include one of the following: ART 121, ART 122, BUS 221, BUS 222, GEO 102, HIS 101, HIS 102, HIS 149 or HIS 150.
*****PHY 231 − Statics may not be required for some programs. See the Student Success Center or an engineering school representative from your university of choice. Students choosing not to take PHY 231 must complete all degree requirements and have a minimum of 62 credits to graduate.

MACRAO STATEWIDE COLLEGE AND UNIVERSITY TRANSFER AGREEMENT

SC4 is a member of the Michigan statewide transfer agreement between community and four-year public or private colleges and universities of Michigan. The MACRAO (Michigan Association of Collegiate Registrars and Admissions Officers) Agreement helps simplify the transfer of credit for SC4 students. The agreement stipulates that 30 semester credit hours of 100 level and above, compatible, general course work will be granted smooth transferability to participating universities. Credits will be awarded towards a student's general education requirements.

Students completing the following MACRAO Agreement requirements must request in the SC4 Enrollment Services office to have their transcript listed as "MACRAO Agreement Satisfied."

MACRAO REQUIREMENTS

Required Courses		**Semester Hours**
ENG 101	English Composition I	3
ENG 102	English Composition II	3
	*Social Science Requirement	8
	**Humanities Requirement	8
	***Science and Math Requirement	8
	Total Credit Hours/Range Total Contact Hours = 30/30-32	

Note: Courses taken in each group must be in more than one subject area (with the exception of English Composition).

For a list of senior colleges and universities that have signed the MACRAO Agreement, visit www.macrao.org.

GENERAL TRANSFER STUDIES (MACRAO)

Program Code: CERTR
CERTIFICATE
Student Success Center (810) 989-5520

The General Transfer Studies certificate program is intended for students who wish to transfer to a four-year college or university after completing one year of coursework at SC4. Completion of this certificate program will satisfy the MACRAO requirements (a transfer agreement in the state of Michigan that assists students with the transferability of general education requirements).

Required courses are flexible and may be customized to meet the needs of the student based upon the transfer institution requirements. Most transfer institutions will accept a minimum of 60 credit hours from SC4; therefore, students are encouraged to take additional courses beyond the Transfer Certificate requirements.

Students seeking the Transfer Certificate **must work closely with the transfer school of choice as well as an SC4 advisor** to help ensure the appropriate courses are taken at SC4.

Required Courses		**Semester Hours**
ENG 101	English Composition I	3
ENG 102	English Composition II	3
	*Social Science Requirement	8
	**Humanities Requirement	8
	***Science and Math Requirement	8
Range Total Credit Hours/Range Total Contact Hours = 30/30-32		

***Social Science Requirement** − must select classes from ANT, PS, PSY, SOC, HIS, GEO (not GEO 101, 105, 137 or 210), BUS 221 or BUS 222. Courses must be from more than one subject area (i.e., you cannot take two PSY classes to fulfill this requirement).
****Humanities Requirement** − must select classes from SPC, ART, MUS, THA, PHL, HIS (101 and 102 only), SP, FR, GR or ENG 200 level classes. Courses must be from more than one subject area (i.e., you cannot take two ART classes to fulfill this requirement).
*****Science and Math Requirement** − must select classes from AST, CHM, GEO (101, 105, 137 and 210 only), GLG, PHY, PHS, AGR, BIO or MTH 104 and higher. Courses must be from more than one subject area (i.e. you cannot take two MTH classes to fulfill this requirement) and include at least one lab science.

Note: Not all 195-designated courses satisfy General Transfer Studies requirements.

SPECIAL TRANSFER DEGREES AND CERTIFICATION
Associate in Business (Transfer)
Associate in Engineering (Transfer)
General Transfer Studies (MACRAO) Certificate

SPECIAL ARTICULATION AGREEMENTS WITH SENIOR INSTITUTIONS

Additional transfer guides and articulation agreements from colleges and universities may be available for occupational classes/programs. For additional information call (810) 989-5813. The following articulation agreements are in place:

Capella University
Concordia University
Davenport University
Eastern Michigan University
Ferris State University
Franklin University
Kaplan University
Kettering University
Lake Superior State University
Lambton College
(Sarnia, ONT, CA)
Hospitality and Tourism
Macomb Community College
Physical Therapy Assistant
Occupational Therapy
Assistant Respiratory Therapy
Veterinary Technology
Madonna University
Northwestern Michigan College,
Great Lakes Maritime Academy
Northwood University
Oakland University
Saginaw Valley State University
Siena Heights University
University of Detroit Mercy
University of Phoenix
Walsh College
Wayne State University

SC4 UNIVERSITY CENTER

See the University Center section of this catalog or visit www.sc4.edu/universities for a detailed listing of bachelor's degree completion programs available locally through university partnerships.

HIGH SCHOOL ARTICULATION

St. Clair County Community College is committed to providing a variety of methods for granting college credit for competencies and skills attained outside of the traditional college classroom. This process is called articulation. Articulation agreements exist between St. Clair County Community College and the following high schools and secondary technical education centers:

Huron County
Huron Area Technical Center

Lapeer County
Lapeer County Vocational Technical Center

St. Clair County
Algonac
Capac
Marine City
Marysville
Memphis
Port Huron
Port Huron Northern
St. Clair
St. Clair County RESA
Yale

Sanilac County
Sanilac Career Center

Tuscola County
Vocational Education Center

High school students should contact the counseling office at their local high school or technical education center to obtain the most updated information regarding the articulation of credits to the college.

CAREER PROGRAM GUIDES

CAREER PROGRAMS

OCCUPATIONAL PROGRAMS

The occupational program prepares the student for direct entrance into business or industry without having to continue on to other institutions of higher education. However, credits for some classes designed to fulfill requirements for the Associate in Applied Arts and Science degree may be transferred depending upon the major area of study and the transfer college of choice. SC4 has a number of articulation and transfer agreements with colleges and universities leading to a bachelor's degree. Students planning to transfer should meet with an academic advisor before selecting classes. The sequence of classes listed under each program is a suggested sequence only and is subject to change without prior written notice. There may be various sequences available to students within an individual program, depending on the student's area of interest. If the student wishes to select classes for a chosen program in a sequence different from the one suggested, and/or it is the student's intent to transfer credits to a college or a university, the student should see an advisor before selecting classes. Course of study equivalency sheets are available in the Student Success Center.

All students must apply for graduation in the Enrollment Services office.

ASSOCIATE IN APPLIED ARTS AND SCIENCE PROGRAMS

Students completing the Associate in Applied Arts and Science degree may choose from the following occupational programs:

Accounting
Alternative Energy − Architectural Design/Green Building
Alternative Energy − Facility and Energy Management
Alternative Energy − Renewable and Alternative Energy Technology
Architectural Design
Business, General
CNC Programmer/Machinist
Communication Design
Communications Media − Broadcasting
Communications Media − Journalism
Computer Information Systems − Applications
Computer Information Systems − Networking
Computer Information Systems − Programming
Computer Information Systems − Web Development
Criminal Justice − Corrections
Criminal Justice − Law Enforcement
Early Childhood Education
Electronics and Computer Technology
Engineering Graphics Technology
Fabrication and Design
Freshwater Systems – Water Monitoring and Assessment
Health Information Technology

Landscape Design, Turf and Greenhouse Management (Manager Track)
Management − Business
Marketing
Mechatronics
Nursing − Associate Degree Nursing (ADN)
Nursing − LPN to ADN Track
Nursing − Health Care Provider to ADN Track
Office Administration − Administrative Executive Assistant
Office Administration − Administrative Legal Assistant
Office Administration − Administrative Medical Assistant
Office Administration − Medical Clinical Assistant
Radiologic Technology
Robotics/Automation Technology
Technology, Applied Studies
Therapeutic Massage
Welding and Cutting Technology

CERTIFICATE PROGRAMS

Students completing the certificate may choose from the following occupational program options:

Alternative Energy Technology
Architectural Design
Architectural – Civil/Sitework
Architectural – Mechanical/Electrical/Plumbing (MEP)
Architectural − Structural
Business, General
Communications Media − Broadcasting in Radio/TV
Computer Information Systems − Computer Applications
Electronics and Computer Technology
Electrical/Industrial
Engineering Graphics Technology
Horticulture − Landscape
Machine Tool
Management, Professional Certification
Marketing
Nursing, Practical
Office Administration − Clerical Specialist
Radio Frequency Identification Technology
Technology, Applied Studies
Transportation and Logistics Technology
Welding and Cutting Technology

PREPARATION FOR CERTIFICATION

Early Childhood National CDA Credential

SPECIAL TRANSFER DEGREES AND CERTIFICATION

Associate in Business (Transfer)
Associate in Engineering (Transfer)
General Transfer Studies (MACRAO) Certificate

ACCOUNTING

Program Code: AASAC
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Business Administration Department (810) 989-5575

The two-year Accounting degree prepares students for positions in the field of accounting practices. The program is designed to prepare students to obtain accounting jobs in the areas of accounts payable, accounts receivable, payroll, general ledger processing, and managerial accounting within service and industrial firms. The program combines the in-depth study of accounting principles with the application of those principles and concepts in a computerized accounting system. Students graduating from this program will be trained to fill positions that require knowledge and skills in accounting at an introductory level.

Students completing this course of study will be able to complete the accounting cycle for service, merchandise and manufacturing firms that are sole proprietorships, partnerships or corporations. Students will be able to analyze and interpret financial data, assist in the budgeting process, and process and account for payroll related transactions. Students will be skilled in performing these tasks in a manual and computerized accounting system.

NOTE: Students wishing to transfer should follow the Business Transfer program and contact the Business Administration Department or academic advisor for guidance and details relating to transfer information specific to each college/ university.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ACCT 189	College Accounting		3
CIS 115	Microcomputer Applications	**CL**	4
BUS 158	Business Math	**MA**	4
ENG 101	English Composition I	**WR**	3
PS 101	Political Science	**GA GP**	3
			17
2nd Semester			**Semester Hours**
ACCT 211	Principles of Accounting I		4
CIS 200	Electronic Spreadsheets		4
MTH 110*	Intermediate Algebra	**MA**	4
BUS 150	Principles of Business	**GA**	4
			16
SECOND YEAR − 1st Semester			**Semester Hours**
ACCT 192	Computerized Payroll Accounting		3
ACCT 212	Principles of Accounting II		4
OA 225**	Business Communications	**OC WR**	4
BUS 221	Principles of Economics I	**CT GA**	4
BUS 155	Principles of Management		3
			17
2nd Semester			**Semester Hours**
ACCT 220	Computerized Accounting		2
ACCT 241	Tax Accounting		3
ACCT 251	Cost Accounting		4
BUS 222	Principles of Economics II	**CT GA**	3
BUS 153	Introduction to Business Law	**CT**	3
			15

Total Credit Hours/Total Contact Hours = 65/65

*or higher.
ENG 102 and SPC 101 **OR ENG 102 and BUS 181 may be substituted for OA 225.

ALTERNATIVE ENERGY PROGRAM OPTIONS

ALTERNATIVE ENERGY ASSOCIATE DEGREE and CERTIFICATE PROGRAM OPTIONS

The Alternative Energy associate degree programs are designed with a common interdisciplinary core of first year courses. Students take a first-year curriculum that provides a solid general and technical educational background. After the first year, students branch off into their desired area of interest. These programs of study are designed to prepare students to work in the growing alternative energy fields which include rapidly evolving professions with high growth and high wage potential. An advisory committee made of alternative/renewable energy professionals help guide the development of the programs. Energy conservation and efficiency is an integrated part of the curriculum. The Alternative Energy Technology certificate is designed to give the student a quick start in the field. The Alternative Energy associate degree and certificate program options are outlined on the following pages.

ALTERNATIVE ENERGY − ARCHITECTURAL DESIGN/GREEN BUILDING

Program Code: AASAE
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This technical associate degree is offered as a second year option within the Alternative Energy Program for those who wish to pursue a career in the architectural green building design field. The coursework prepares students to work as an architectural draftsperson or junior designer who can also assist engineers and supervisors in the development of green building designs. In addition, graduates also will be prepared to perform material estimating, sizing, etc. Energy conservation and energy efficiency are integrated throughout the curriculum. Go to www.sc4.edu/energy for information.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AET 100	Electrical Power & Control Circuits I		3
ELT130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT130B	Fundamentals of Alternating Current Electronics	**GA**	2
ENG 101	English Composition I	**WR**	3
MFT 111	Machine Tool	**GA**	4
PS 101	Introduction to Political Science	**GA GP**	3
			17
2nd Semester			**Semester Hours**
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power & Control Circuits I		3
ENG 102	English Composition II	**WR**	3
EG 110	Introduction to Drafting		2
MTH 110*	Intermediate Algebra	**CT MA**	4
SPC 101	Speech Communication	**OC**	3
			18
SECOND YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 121	Structural Basics		1
AD 122	Civil/Sitework Basics		1
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AD 140	Cost Estimating − Architectural Construction		1
AD 143	Cost Estimating − Mechanical/Electrical/Plumbing		1
AET 181	Planning a Sustainable Alternative Energy System		3
EG 111	Fundamentals of Computer-Aided Drafting		2
NTR 100	Introduction to Sustainable Energy Concepts		4
			16
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 131	Structural Drafting		1
AD 220	3D & CAD Models − Architectural		1
AET 182	Installation & Control of Energy Systems		4
MTH 111*	Plane Trigonometry	**CT MA**	2
EG 162	Advanced Drafting with AutoCAD	**CL**	4
GEO 137	Global Energy Resources	**GA**	4
			18

Total Credit Hours/Total Contact Hours = 69/90

*Students have the option of taking MTH 112 as a replacement for MTH 110 and MTH 111. If students chose MTH 112, they must select one more course from the Critical Thinking list to meet graduation competency requirements.

ALTERNATIVE ENERGY − FACILITY AND ENERGY MANAGEMENT

Program Code: AASFE
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This interdisciplinary program of study is planned to prepare students to work in the growing field of facility and energy management. The facility manager is an important link in the integration of telecommunication, information management systems, maintenance, security and general administrative services. Facility managers are responsible for the total facility work environment from chairs to air quality. Facility management professionals work in industries such as: general manufacturing, banking and finance, electronics, insurance, education, research and development, health care, communication, public administration, retail, wholesale, data processing, architecture and design, transportation, real estate, government agencies and distribution companies. Energy conservation and energy efficiency are integrated throughout the curriculum. Go to www.sc4.edu/energy for information.

Suggested Course Sequence

FIRST YEAR − 1st Semester		**Semester**	**Hours**
AET 100	Electrical Power & Control Circuits I		3
ELT 130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
ENG 101	English Composition I	**WR**	3
MFT 111	Machine Tool	**GA**	4
PS 101	Introduction to Political Science	**GA GP**	3
			17
2nd Semester			
AET 102	Programmable Logic Controllers	**GA**	3
AET 143	Fluid Power & Control Circuits I		3
EG 110	Introduction to Drafting		2
ENG 102	English Composition II	**WR**	3
MTH 110	Intermediate Algebra	**CT MA**	4
SPC 101	Speech Communication	**OC**	3
			18
SECOND YEAR − 1st Semester		**Semester**	**Hours**
AD 120	Architectural Basics		2
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AET 181	Planning a Sustainable Alternative Energy System		3
BUS 155	Principles of Management		3
BUS 221	Principles of Economics	**GA CT**	3
EG 111	Fundamentals of Computer-Aided Drafting		2
NTR 100	Introduction to Sustainable Energy Concepts		4
			18
2nd Semester		**Semester**	**Hours**
AET 182	Installation & Control of Energy Systems		4
ACCT 189	College Accounting		3
CIS 120	Introduction to Networking		3
BUS 257	Supervision Management		3
AET 250*	Integrated Facility & Energy Systems Internship		1
			14

Total Credit Hours/Total Contact Hours = 67/84

*Students must acquire their own placement for AET 250. Possibilities are Great Lakes Renewable Energy Association, Midwest Renewable Energy Association, private contractor, non-profit organizations, etc. See discipline coordinator for details, (810) 989-5762 or (810) 989-5754.

ALTERNATIVE ENERGY − RENEWABLE AND ALTERNATIVE ENERGY TECHNOLOGY

Program Code: AASRA
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This technical associate degree is offered for those who wish to pursue a career in the renewable energy field. The course work prepares students to work as a renewable energy technician installing, servicing, modifying, troubleshooting and designing wind power systems, solar domestic hot water and space heating systems and solar electric systems for the growing residential and small business markets. In addition, graduates will also be prepared to perform material estimating, sizing, etc. Energy conservation and energy efficiency are integrated throughout the curriculum. Go to www.sc4.edu/energy for information.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AET 100	Electrical Power & Control Circuits I		3
ELT 130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
ENG 101	English Composition I	**WR**	3
MFT 111	Machine Tool	**GA**	4
PS 101	Introduction to Political Science	**GA GP**	3
			17
2nd Semester			**Semester Hours**
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power & Control Circuits I		3
ENG 102	English Composition II	**WR**	3
EG 110	Introduction to Drafting		2
MTH 110	Intermediate Algebra	**CT MA**	4
SPC 101	Speech Communication	**OC**	3
			18
SECOND YEAR – 1st Semester			**Semester Hours**
AD 123	Mechanical/Electrical/Plumbing (MEP)Basics		1
AD 143	Cost Estimating − Mechanical/ Electrical/Plumbing (MEP)		1
AET 181	Planning a Sustainable Alternative Energy System		3
EG 111	Fundamentals of Computer-Aided Drafting		2
ELT 135	Digital Circuits		3
NTR 100	Introduction to Sustainable Energy Concepts		4
PS 230	International Relations	**CT GA**	3
			17
2nd Semester			**Semester Hours**
AET 182	Installation & Control of Energy Systems		4
AET 183	National Electrical Code (NEC Handbook)		2
AET 250*	Integrated Facility & Energy Systems Internship		1
BIO 270	Environmental Issues	**CT**	3
ELT 236	Microcontrollers: Energy Control Systems I	**CT CL**	4
GEO 137	Global Energy Resources	**GA**	4
			18

Total Credit Hours/Total Contact Hours = 70/91

*Students must acquire their own placement for AET 250. Possibilities are Great Lakes Renewable Energy Association, Midwest Renewable Energy Association, private contractor, non-profit organizations, etc. See discipline coordinator for details, (810) 989-5762 or (810) 989-5754.

ALTERNATIVE ENERGY TECHNOLOGY

Program Code: CERAE
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Alternative Energy Technology program is intended for people who wish to develop a working knowledge of alternative energy power generation and delivery systems. It is expected that students in this program intend to pursue a career that includes the design, building and service of energy systems such as, but not limited to, wind energy, passive solar energy, photovoltaic energy, solar domestic hot water and space heating systems. Energy conservation and energy efficiency are integrated throughout the curriculum. Go to www.sc4.edu/energy for information.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AET 100	Electrical Power and Control Circuits I		3
AET 181	Planning a Sustainable Alternative Energy System		3
ELT130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT130B	Fundamentals of Alternating Current Electronics	**GA**	2
ELT 135	Digital Circuits		3
NTR 100	Introduction to Sustainable Energy		4
			17
2nd Semester			**Semester Hours**
AET 102	Programmable Logic Controls	**CL**	3
AET 143	Fluid Power and Control Circuits I		3
AET 182	Installation and Control of Energy Systems		4
AET 183	National Electrical Code (NEC Handbook)		2
ELT 236	Microcontrollers: Energy Control Systems I	**CT CL**	4
			16

Total Credit Hours/Total Contact Hours = 33/49

ARCHITECTURAL DESIGN

Program Code: AASAR
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

The Architectural Design associate degree program teaches architecture design and building construction technologies including space planning and design, analyzing blueprints, using spreadsheets for cost estimating, preparing architectural working drawings and construction specifications. Also included are 3-D scale and CAD models, as well as architectural CAD rendering photo-realistic software.

This program will help train entry-level workers in the following fields or positions: architectural design, interior design, planners, field inspectors, construction estimators, construction management, residential builders and decorating contractors.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 121	Structural Basics		1
AD 122	Civil/Sitework Basics		1
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AD 140	Cost Estimating − Architectural Construction		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	**Approved Interest Electives		5
			15
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 220	3D & CAD Models − Architectural		1
EG 162	Advanced Drafting with AutoCAD	**CL**	4
ENG 101	English Composition I	**WR**	3
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Approved Interest Electives		2
			16

Spring/summer session
***Choose from list on next page for courses typically offered in spring or summer sessions – consult WAVE for course availability.

SECOND YEAR − 1st Semester			**Semester Hours**
AD 230	Design Documentation − Architectural		1
AD 224	Construction Specifications Writing		1
ENG 102	English Composition II	**WR**	3
MTH 111*	Plane Trigonometry	**MA CT**	2
	**Approved Interest Electives		8
			15
2nd Semester			**Semester Hours**
AD 234	Architectural CAD Rendering		1
PS 101	Introduction to Political Science	**GP GA**	3
SPC 101	Speech Communication	**OC**	3
	**Approved Interest Electives		7
	Global Awareness Elective	**GA**	2-4
	(see Global Awareness approved electives)		16-18
	Total Credit Hours/Total Contact Hours = 62-64/69+		

*Students have the option of taking MTH 112 as a replacement of MTH 110 and MTH 111. If students choose MTH 112, they must select one additional course from the Critical Thinking (CT) list to meet graduation competency requirements. Transfer students should see program advisor for guidance on math course options.
Approved Electives: student must choose a **minimum of 4 AD credits. See program advisor for recommendation, or contact Engineering Technology Department, (810) 989-5754.

****Approved Interest Electives (minimum of 4 AD credits)**

Structural			**Semester Hours**
AD 131	Structural Drafting		1
AD 141	Cost Estimating − Building Structural		1
AD 221	3D & CAD Models − Structural		1
AD 231	Design Documentation − Structural		1
WELD 110A	Basic Oxyacetylene Welding, Cutting & Brazing		1
WELD 110B	Basic Shielded Metal Arc Weld I		1
WELD 110C	Gas Metal Arc Weld & Gas Tungsten Arc Welding		1
Civil/Sitework			
AD 132	Civil/Sitework Drafting		1
AD 142	Cost Estimating − Civil/Sitework		1
AD 222	3D and CAD Models − Civil/Sitework		1
AD 232	Design Documentation − Civil/Sitework		1
AGR 104	Computer-Aided Drafting for Landscaping		2
AGR 227	Landscape Design		3
MEP (Mechanical/Electrical/Plumbing)			
AD 133	Mechanical/Electrical/Plumbing (MEP) Drafting		1
AD 143	Cost Estimating − Mechanical/Electrical/Plumbing (MEP)		1
AD 233	Design Documentation − Mechanical/Electrical/Plumbing (MEP)		1
FST 103	Introduction to Fire Suppression		3
ELT 105	Fundamentals of Residential Wiring		3
Alternative Energy			
AET 100	Electrical Power & Control Circuits I		3
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power & Control Circuits I		3
AET 181	Planning a Sustainable Alternative Energy System		3
AET 182	Installation and Control of Energy Systems		4
NTR 100	Introduction to Sustainable Energy Concepts		4
Business			
BUS 150	Principles of Business	**GA**	4
CIS 115	Microcomputer Applications	**CL**	4
Design/Software			
EG 163	Solidworks − Product Design & Development		3
EG 164	CATIA Basics		2
EG 165	Interactive 3D Visualization		2
EG 180	Engineering Graphics		4
EG 270	Advanced Solid Modeling		2
Other			
ART 101	Foundation Drawing		3
FST 202	Building Construction		3
PHY 110	Introduction to Physics		4
PHY 115	Introduction to Engineering		3
PHY 130	Physics for Technology Students		4

***Spring/Summer sessions (courses generally offered in spring or summer)**
BUS 150, CIS 115, MTH 111, PS 101, SPC 101

ARCHITECTURAL DESIGN (CERTIFICATE)

Program Code: CERAR
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Architectural Design certificate teaches architecture design and building construction technologies, including space planning and design, analyzing blueprints, using spreadsheets for cost estimating, preparing architectural working drawings and construction specifications, and 3-D scale and CAD models.

This program will help train entry-level workers in the following fields and positions: architectural design, architectural planners, field inspectors and construction estimators.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 140	Cost Estimating − Architectural Construction		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	**Approved Interest Electives		8
			15
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 220	3D and CAD Models − Architectural		1
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Approved Interest Electives		8
			15

Total Credit Hours/Total Contact Hours = 30/33

*Students have the option of taking MTH 112 or higher as a replacement for MTH 110.
From the Approved Interest Electives list, student must choose a **minimum of 4 AD credits. See program advisor for recommendation, or contact Engineering Technology Department, (810) 989-5754.

****APPROVED INTEREST ELECTIVES (minimum of 4 AD credits)**

Recommended Electives			**Semester Hours**
AD 121	Structural Basics		1
AD 122	Civil/Sitework Basics		1
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AET 181	Planning a Sustainable Alternative Energy System		3
AET 182	Installation and Control of Energy Systems		4
NTR 100	Introduction to Sustainable Energy Concepts		4
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 165	Interactive 3D Visualization		2
FST 202	Building Construction		3
Structural Electives			
AD 131	Structural Drafting		1
AD 141	Cost Estimating − Building Structural		1
AD 221	3D & CAD Models − Structural		1
AD 231	Design Documentation − Structural		1
Civil Electives			
AD 132	Civil/Sitework Drafting		1
AD 142	Cost Estimating and Civil/Sitework		1
AD 222	3D & CAD Models − Civil/Sitework		1
AD 232	Design Documentation − Civil/Sitework		1
MEP Electives			
AD 133	Mechanical/Electrical/Plumbing (MEP) Drafting		1
AD 143	Cost Estimating − Mechanical/Electrical/ Plumbing (MEP)		1
AD 233	Design Documentation − Mechanical/Electrical/Plumbing (MEP)		1
ELT 105	Fundamentals of Residential Wiring		3
Other Electives			
AD 224	Construction Specifications Writing		1
AD 230	Design Documentation − Architectural		1
AD 234	Architectural CAD Rendering		1

ARCHITECTURAL – CIVIL/SITEWORK

Program Code: CERCV
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Architectural − Civil/Sitework certificate program teaches site design, detailing and presentation, and associated construction technologies. Also included are analyzing blueprints, using spreadsheets for cost estimating, and preparing 3-D scale and CAD models.

Courses in this program are helpful for entry-level positions in the following areas: civil engineering technician, field inspector and construction estimator specializing in the civil/sitework area.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 122	Civil/Sitework Basics		1
AD 142	Cost Estimating − Civil/Sitework		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	**Approved Interest Electives		7
			15
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 132	Civil/Sitework Drafting		1
AD 222	3D & CAD Models − Civil/Sitework		1
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Approved Interest Electives		8
			16

Total Credit Hours/Total Contact Hours = 31/34

*Students have the option of taking MTH 112 or higher as a replacement for MTH 110.
From the Approved Interest Electives list, student must choose a **minimum of 4 AD credits. See program advisor for recommendation, or contact Engineering Technology Department, (810) 989-5754.

****APPROVED INTEREST ELECTIVES (minimum of 4 AD credits)**

Recommended Electives			**Semester Hours**
AD 224	Construction Specifications Writing		1
AD 232	Design Documentation − Civil/Sitework		1
MTH 111	Plane Trigonometry	**MA CT**	2
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 165	Interactive 3D Visualization		2
Structural Electives			
AD 121	Structural Basics		1
AD 131	Structural Drafting		1
AD 141	Cost Estimating − Building Structural		1
AD 221	3D & CAD Models − Structural		1
AD 231	Design Documentation − Structural		1
MEP Electives			
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AD 133	Mechanical/Electrical/Plumbing (MEP) Drafting		1
AD 143	Cost Estimating−Mechanical/Electrical/Plumbing (MEP)		1
AD 233	Design Documentation − Mechanical/Electrical/Plumbing (MEP)		1
ELT 105	Fundamentals of Residential Wiring		3
Other Electives			
AD 140	Cost Estimating − Architectural Construction		1
AD 220	3D & CAD Models − Architectural		1
AD 230	Design Documentation − Architectural		1
AD 234	Architectural CAD Rendering		1
Alternative Energy Electives			
AET 100	Electrical Power and Control Circuits I		3
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power and Control Circuits I		3
AET 181	Planning a Sustainable Alternative Energy System		3
AET 182	Installation and Control of Energy Systems		4
NTR 100	Introduction to Sustainable Energy Concepts		4

ARCHITECTURAL – MECHANICAL/ ELECTRICAL/PLUMBING (MEP)

Program Code: CERMP
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Architectural − Mechanical/Electrical/Plumbing (MEP) certificate program teaches building systems design and construction technologies within a building. Also included are analyzing blueprints, using spreadsheets for cost estimating, preparing 3-D scale and CAD models, and MEP plans for HVAC, electrical and plumbing.

Courses in this program are helpful for the following entry-level positions: building mechanical technician, building electrical technician, field inspector and construction estimator.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AD 143	Cost Estimating − Mechanical/Electrical/Plumbing (MEP)		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	**Approved Interest Electives		7
			15
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 133	Mechanical/Electrical/Plumbing (MEP) Drafting		1
AD 220	3D & CAD Models − Architectural		1
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Approved Interest Electives		7
			15

Total Credit Hours/Total Contact Hours = 30/32

*Students have the option of taking MTH 112 or higher as a replacement for MTH 110.
From the Approved Interest Electives list, student must choose a **minimum of 4 AD credits. See program advisor for recommendation, or contact Engineering Technology Department, (810) 989-5754.

****APPROVED INTEREST ELECTIVES (minimum of 4 AD credits)**

Recommended Electives			**Semester Hours**
AD 224	Construction Specifications Writing		1
AD 233	Design Documentation - Mechanical/Electrical/ Plumbing (MEP)		1
AD 234	Architectural CAD Rendering		1
AET 181	Planning a Sustainable Alternative Energy System		3
AET 182	Installation and Control of Energy Systems		4
ELT 105	Fundamentals of Residential Wiring		3
FST 103	Introduction to Fire Suppression		3
NTR 100	Introduction to Sustainable Energy Concepts		4
Structural Electives			
AD 121	Structural Basics		1
AD 131	Structural Drafting		1
AD 141	Cost Estimating − Building Structural		1
AD 221	3D & CAD Models − Structural		1
AD 231	Design Documentation − Structural		1
Civil Electives			
AD 122	Civil/Sitework Basics		1
AD 132	Civil/Sitework Drafting		1
AD 142	Cost Estimating − Civil/Sitework		1
AD 222	3D & CAD Models − Civil/Sitework		1
AD 232	Design Documentation − Civil/Sitework		1
Other Electives			
AET 100	Electrical Power and Control Circuits I		3
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power and Control Circuits I		3
AD 140	Cost Estimating − Architectural Construction		1
AD 230	Design Documentation − Architectural		1
EG 165	Interactive 3D Visualization		2
MTH 111	Plane Trigonometry	**MA CT**	2

ARCHITECTURAL − STRUCTURAL

Program Code: CERSR
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Architectural − Structural certificate program teaches building structural systems and components for design and construction of roofs, floors, walls and foundations of buildings. Also included are analyzing blueprints, using spreadsheets for cost estimating, and preparing 3-D scale and CAD models. Courses in this program are helpful for entry-level positions such as: structural drafter, field inspector and construction estimator.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 121	Structural Basics		1
AD 141	Cost Estimating − Building Structural		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	**Approved Interest Electives		7
			15
2nd Semester			**Semester Hours**
AD 130	Architectural Drafting		2
AD 131	Structural Drafting		1
AD 221	3D & CAD Models − Structural		1
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Approved Interest Electives		8
			16

Total Credit Hours/Total Contact Hours = 31/33

*Students have the option of taking MTH 112 or higher as a replacement for MTH 110.
From the Approved Interest Electives list, student must choose a **minimum of 3 AD credits. See program advisor for recommendation, or contact Engineering Technology Department, (810) 989-5754.

****APPROVED INTEREST ELECTIVES (minimum of 3 AD credits)**

Recommended Electives			**Semester Hours**
AD 231	Design Documentation − Structural		1
WELD 110A	Basic Oxyacetylene Welding, Cutting and Brazing		1
WELD 110B	Basic Shielded Metal Arc Weld I		1
WELD 110C	Gas Metal Arc Weld and Gas Tungsten Arc Welding		1
Civil Electives			
AD 122	Civil/Sitework Basics		1
AD 132	Civil/Sitework Drafting		1
AD 142	Cost Estimating − Civil/Sitework		1
AD 222	3D & CAD Models − Civil/Sitework		1
AD 232	Design Documentation − Civil/Sitework		1
MEP Electives			
AD 123	Mechanical/Electrical/Plumbing (MEP) Basics		1
AD 133	Mechanical/Electrical/Plumbing (MEP) Drafting		1
AD 143	Cost Estimating (MEP)		1
AD 233	Design Documentation (MEP)		1
ELT 105	Fundamentals of Residential Wiring		3
Alternative Energy Electives			
AET 181	Planning a Sustainable Alternative Energy System		3
AET 182	Installation & Control of Energy Systems		4
NTR 100	Introduction to Sustainable Energy Concepts		4
Other Electives			
AD 140	Cost Estimating − Architectural Construction		1
AD 220	3D & CAD Models − Architectural		1
AD 224	Construction Specifications Writing		1
AD 230	Design Documentation − Architectural		1
AD 234	Architectural CAD Rendering		1
AET 100	Electrical Power and Control Circuits I		3
AET 102	Programmable Logic Controllers	**CL**	3
AET 143	Fluid Power and Control Circuits I		3
CIS 115	Microcomputer Applications	**CL**	4
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 165	Interactive 3D Visualization		2
MTH 111	Plane Trigonometry	**MA CT**	2

BUSINESS, GENERAL

Program Code: AASGB
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Business Administration Department (810) 989-5575

The general business occupational curriculum provides a broad, basic program in business, supplemented with technical skills, and rounded out with general liberal arts courses. This foundation will permit the student to seek employment through a variety of entry-level business positions, such as accounting clerk, junior accountant, assistant office manager, assistant department manager or administrative assistant. This program is also intended to provide sufficient background so that the student may ultimately specialize in some area of administration.

NOTE: Students wishing to transfer should not follow the sequence listed below. Please contact the Business Administration Department or Student Success Center for detailed transfer information specific to each college/university.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
BUS 150	Principles of Business	**GA**	4
BUS 158**	Business Math	**CT MA**	4
CIS 115	Microcomputer Applications	**CL**	4
			15
2nd Semester			**Semester Hours**
OA 225***	Business Communications	**OC WR**	4
BUS 153	Introduction to Business Law	**CT**	3
BUS 181	Professional Selling	**OC**	3
ACCT 189	College Accounting		3
BUS 155	Principles of Management		3
			16
SECOND YEAR − 1st Semester			**Semester Hours**
BUS 180	Marketing Principles		4
ACCT 211	Principles of Accounting I		4
BUS 221	Principles of Economics I	**CT GA**	3
PSY 180****	Introduction to Psychology	**CT**	4
			15
2nd Semester	**Semester Hours**		
ACCT 212	Principles of Accounting II		4
BUS 222	Principles of Economics II	**CT GA**	3
PS 101	Political Science	**GA GP**	3
	*Electives		6-7
			16-17

Range Total Credit Hours/Range Total Contact Hours = 62-63/62-63

*Recommended electives: ACCT 192, ACCT 220, BUS 199, BUS 257, BUS 258, ITL 150, ITL 190, ITL 191, ITL 192, ITL 193, ITL 194

**BUS 158 preferred. MTH 110 or higher may be taken. Students choosing a MTH course with fewer credits are still required to complete a minimum of 62 credits.

***or ENG 102. If student takes OA 225, 6 elective credits are needed. If ENG 102 is taken, student must take 7 electives.

**** PSY 230 is an approved substitute.

BUSINESS, GENERAL (CERTIFICATE)

Program Code: CERGB
CERTIFICATE
Business Administration Department (810) 989-5575

The General Business program certificate is designed to be a short-term, focused program providing knowledge related to the business profession. Courses transfer directly into the General Business associate degree program.

FIRST YEAR − 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
BUS 150	Principles of Business	**GA**	4
BUS 158 **	Business Math	**CT MA**	4
BUS 181	Professional Selling	**OC**	3
			14
2nd Semester			**Semester Hours**
ACCT 189	College Accounting		3
BUS 153	Introduction to Business Law	**CT**	3
BUS 155	Principles of Management		3
OA 225 ***	Business Communications	**OC WR**	4
	*Electives		3-4
			16-17

Total Credit Hours/Total Contact Hours = 30/30

*Recommended electives: ACCT 192, ACCT 211, BUS 180, BUS 199, BUS 221, BUS 258, CIS 115, ITL 150, ITL 190, ITL 191, ITL 192, ITL 193, ITL 194, OA 110, PSY 180.
**BUS 158 preferred. MTH 110 or higher may be taken.
***or ENG 102. If student chooses to take ENG 102, an additional credit must be taken to reach a minimum of 30 credits.

BUSINESS (TRANSFER)

Program Code: ABTGB
ASSOCIATE IN BUSINESS (Transfer Program)
Business Administration Department (810) 989-5575

This program is intended for students wishing to pursue an associate degree while preparing to transfer to a four-year school in business. **Since transfer requirements vary by institution, students are strongly encouraged to meet with representatives from the transfer school.** In addition, students should work closely with the SC4 Business Administration Department and the Student Success Center.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GA GP**	3
SPC 101*	Speech Communication	**OC**	3
ACCT 189	College Accounting		3
	Elective		3
			15
2nd Semester			**Semester Hours**
CIS 115**	Microcomputer Applications	**CL**	4
ENG 102*	English Composition II	**WR**	3
MTH 102***	Elementary Algebra	**MA CT**	5
	Elective		3
			15
SECOND YEAR − 1st Semester			**Semester Hours**
BUS 221	Principles of Economics I	**CT GA**	3
ACCT 211	Principles of Accounting I		4
	Electives		9
			16
2nd Semester			**Semester Hours**
BUS 222	Principles of Economics II	**CT GA**	3
ACCT 212	Principles of Accounting II		4
	Electives		9
			16

Total Credit Hours/Total Contact Hours = 62/62

*ENG 102/SPC 101 or OA 225. Students choosing this option are still required to complete a minimum of 62 credits.
**or higher except CIS 150, CIS 160, CIS 290, CIS 297.
***or MTH 110 or higher or BUS 158. Students choosing this option are still required to complete a minimum of 62 credits.
Elective Courses: Elective course options may vary based upon the transfer institution. Please contact the Student Success Center at (810) 989-5520 or the SC4 Business Administration Department at (810) 989-5575 for assistance with selecting the appropriate elective courses.

CNC PROGRAMMER/MACHINIST

Program Code: AASMT
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This program of study is designed to prepare the student to work in a modern manufacturing plant. Program emphasis is on developing skills in computerized manufacturing methods, computer-aided drafting and machining skills, material testing and inspection, quality control and good communication skills. Employment objectives for graduates include CAD/CAM operator and designer, materials tester, field service technician, quality control manager, estimator, laboratory technician or industrial supervisor.

Suggested Program Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
MFT 111	Machine Tools	**GA**	4
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
MTH 102*	Elementary Algebra	**MA CT**	5
ENG 101	English Composition I	**WR**	3
			16
2nd Semester			**Semester Hours**
EG 162	Advanced Drafting with AutoCAD	**CL**	4
ENG 102	English Composition II	**WR**	3
MTH 112**	Intermediate Algebra and Plane Trigonometry	**MA CT**	5
	***Elective(s)		4
			16
SECOND YEAR − 1st Semester			**Semester Hours**
EG 115	Geometric Dimensioning and Tolerancing	**GA**	2
MFT 211	Beginning NC/CNC Programming	**CL**	3
QA 117	Statistical Process Control	**OC**	3
PS 101	Introduction to Political Science	**GA GP**	3
EG 267	Tool/Die Design		3
			14
2nd Semester			**Semester Hours**
MFT 213	CNC Surfacing Applications		2
EG 266	Jig/Fixture Design		3
IA 143	Fluid Power and Control Circuits I		3
	***Electives		8
			16

Total Credit Hours/Range Total Contact Hours = 62/79.5+

*See advisor for correct mathematics placement or contact the Engineering Technology Department at (810) 989-5754. Students must take a total of 2 courses from the Critical Thinking (CT) list to meet graduation competency requirements. Student must complete a minimum of 62 credits for degree.
**Students have the option of taking MTH 110 and MTH 111 as a replacement for MTH 112.
***Electives must be from: MFT 190, EG 270, WELD 110A, WELD 110B, WELD 110C, CHM 101, CHM 111, PHY 130.

COMMUNICATION DESIGN

Program Code: AASCD
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Visual and Performing Arts Department (810) 989-5709

Visual thinkers who are interested in computers and want to use their art skills and ideas in the world of work should consider developing their knowledge, skills and abilities in the Communication Design program. St. Clair County Community College offers a two-year curriculum that provides students with effective training for entry-level positions in the field of print or virtual design. Students may also consider transferring SC4 credit to a four-year program and taking advantage of one of the articulation agreements that the department has established with other colleges. Prospective students are encouraged to schedule an interview with a design instructor to clarify the objectives of the program and to present a portfolio of art work.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ACD 110	Advertising Design	**CT**	3
ACD 140	Introduction to Computer Graphics		3
ART 101	Foundation Drawing		3
ART 106	Basic Design		3
ENG 101	English Composition I	**WR**	3
			15
2nd Semester			**Semester Hours**
ACD 120	Typography I	**CL**	3
ACD 240	Digital Imaging	**CL**	3
ART 107	3-Dimensional Design		3
ART 117	Color Theory		3
ART 121	Art of the Western World I	**GA**	3
or			
ART 122	Art of the Western World II	**GA**	3
ENG 102	English Composition II	**WR**	3
			18
SECOND YEAR − 1st Semester			**Semester Hours**
ACD 220	Typography II		3
ACD 230	Illustration Media and Techniques		3
ACD 235	Production Processes		3
ACD 250	Communication Design I		3
MTH 104*	Foundations of Math	**CT MA**	3
			15
2nd Semester			**Semester Hours**
ACD 255	Communication Design II		3
ACD 270	Corporate Communications		3
ACD 280	Interactive/Internet Design		3
ACD 290	Portfolio Presentation		1.5
PS 101	Introduction to Political Science	**GA GP**	3
SPC 101	Speech Communication	**OC**	3
			16.5

Total Credit Hours/Total Contact Hours = 64.5/110.5

*or MTH 102 or higher.

Transfer agreements exist with Kendall College of Art and Design and the College for Creative Studies. See Communication Design program advisor for transfer of credit.

COMMUNICATIONS MEDIA − BROADCASTING

Program Code: AASBR
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Communications Department (810) 989-5578

This program is designed for students who wish to work in the areas of journalism and broadcasting. Radio and television announcers provide information and entertainment by speaking to audiences using radio and television broadcasting stations. Class work is coordinated with the college newspaper, the *Erie Square Gazette*, the radio station WSGR-FM and the television studio. There are a limited number of internships available in the community for newspaper, radio and photojournalism majors.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
CM 101	Introduction to Mass Media	**CT**	3
CM 104	Radio Television Production		3
CM 115	Radio Broadcasting I	**WR**	1
ENG 101	English Composition I		3
			14
2nd Semester			**Semester Hours**
CM 102	News Writing		3
CM 103	Basic Photography		3
CM 116	Radio Broadcasting II		1
CM 204	Advanced Television Workshop		3
ENG 102	English Composition II	**WR**	3
SPC 101	Speech Communication	**OC**	3
			16
SUMMER			**Semester Hours**
CM 200A	Internship in Broadcasting I		3
SECOND YEAR − 1st Semester			**Semester Hours**
ACD 140	Introduction to Computer Graphics		3
CIS 205	Internet Development I	**CL**	4
PS 101	Introduction to Political Science	**GA GP**	3
MTH 102	Elementary Algebra	**MA**	5
or			
BUS 158	Business Math	**MA**	4
			14-15
2nd Semester			**Semester Hours**
ACD 240	Digital Imaging		3
CIS 235	Internet Development II		4
CM 206	Radio/TV Production Workshop		3
CM 208	Radio/Television Writing		3
HIS 101	History Western Civilization to 1715	**GA**	4
or			
HIS 102	History of Modern Civilization since 1715	**GA**	4
or			
HIS 150	History of the U.S., 1877 to Present	**GA**	4
			17

Range Total Credit Hours/Range Total Contact Hours = 64-65/79-80

COMMUNICATIONS MEDIA − BROADCASTING IN RADIO/TV

Program Code: CERBR
CERTIFICATE
Communications Department (810) 989-5578

This one-year program is designed for students who wish to prepare for a career in radio and television. Work is concentrated in the radio and television facilities of the college. Completion of the certificate program prepares the student for entry-level employment in either radio or television.

Students get hands-on experience working on the college radio station WSGR and in the college television studio. Students learn to announce, write for broadcast, direct, appear on camera and operate radio and television broadcast equipment.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CM 101	Introduction to Mass Media	**CT**	3
CM 104	Radio/Television Production		3
CM 115	Radio Broadcasting I		1
CM 116	Radio Broadcasting II		1
ENG 101	English Composition	**WR**	3
CIS 115	Microcomputer Applications	**CL**	4
			15

2nd Semester		**Semester Hours**
CM 117	Radio Broadcasting III	1
CM 118	Radio Broadcasting IV	1
CM 200A	Internship in Broadcasting I	3
CM 204	Advanced Television Production	3
CM 208	Radio/Television Writing	3
SPC 101	Speech Communication **OC**	3
PS 101	Introduction to Political Science **GA GP**	3
		17

Total Credit Hours/Total Contact Hours = 32/37

COMMUNICATIONS MEDIA − JOURNALISM

Program Code: AASJO
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Communications Department (810) 989-5578

This program is designed for students who wish to work in the areas of journalism and broadcasting. Journalists report, write, edit, photograph, promote, interpret and publish the news and related information for a variety of media. Class work is coordinated with the college newspaper, the *Erie Square Gazette*, the radio station WSGR-FM and the television studio. There are a limited number of internships available in the community for newspaper, radio and photojournalism majors.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CM 101	Introduction to Mass Media	**CT**	3
CM 110	Journalism Practicum I		1
ENG 101	English Composition I	**WR**	3
SPC 101	Speech Communication	**OC**	3
CIS 115	Microcomputer Applications	**CL**	4
			14
2nd Semester			**Semester Hours**
CM 103	Basic Photography		3
CM 102	News Writing		3
SOC 101	Principles of Sociology	**GA**	3
or			
ANT 171	Introduction to Anthropology	**GA CT**	3
CM 111	Journalism Practicum II		1
CIS 205	Internet Development	**CL**	4
CM 104	Radio/Television Production		3
			17
SPRING/SUMMER			**Semester Hours**
CM 200B	Internship in Journalism I		3
SECOND YEAR − 1st Semester			**Semester Hours**
PS 101	Introduction to Political Science	**GA CP**	3
CM 112	Journalism Practicum III		1
CIS 235	Internet Development II		4
BUS 158*	Business Math	**CT MA**	4
ENG 102	English Composition II	**WR**	3
			15
2nd Semester			**Semester Hours**
CM 202	Advanced News Writing		3
CM 203	Photojournalism		3
CM 113	Journalism Practicum IV		1
CM 208	Radio/Television Writing		3
HIS 102	History of Western Civilization since 1715	**GA**	4
or			
ENG 205	Introduction to Poetry	**GA**	3
or			
ENG 246	Modern Poetry	**GA**	3
	**Recommended Electives		3
			16-17

**Recommended Electives:			**Semester Hours**
CM 200D	Internship in Journalism II		1-3
PSY 180	Introduction to Psychology	**CT**	4
OA 101	Personal Keyboarding on Computers		1
CM 201	Editing		2
CM 114	Journalism Practicum V		1
CM 115-118	Radio Broadcasting I-IV		1 hr. each

Range Total Credit Hours/Range Total Contact Hours = 63-64/69-70

*or MTH 102 or higher.

COMPUTER INFORMATION SYSTEMS − APPLICATIONS

Program Code: AASAL
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

Working in computer installation in today's business world requires a broad base knowledge in hardware, software and management. Through the presentation of theory, applications and a bit of management, this Applications degree meets the needs of several job descriptions. A graduate with the Associate in Applied Arts and Science Degree − Applications meets the technical and knowledge requirements for a database analyst, tech trainer or Web designer. Graduates also are qualified to work in tech support, applications support or help desk positions.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 110	CIS Concepts and Careers		4
CIS 115	Microcomputer Applications	**CL**	4
BUS 158*	Business Math	**MA CT**	4
ENG 101	English Composition I	**WR**	3
			15
2nd Semester			**Semester Hours**
CIS 130	Operating Systems		4
CIS 150	Programming Concepts		2
CIS 200	Electronic Spreadsheets		4
OA 225	Business Communications	**WR OC**	4
	**Suggested Elective		3
			17
SECOND YEAR − 1st Semester			**Semester Hours**
CIS 120	Introduction to Networking		4
CIS 202	Microcomputer Databases	**CL**	4
CIS 205	Internet Development I	**CL**	4
BUS 150	Principles of Business	**GA**	4
			16
2nd Semester			**Semester Hours**
CIS 275	Visual BASIC Programming		4
CIS 284	Microcomputer Applications Specialist	**CT**	4
CIS 297	The CIS Professional		1
PS 101	Introduction to Political Science	**GA CP**	3
CIS 160/ELT160	A+ Certification		4
or			
CIS 247A, B	Special Topics in Computer Applications		3-4
or			
CIS 290A, B, C, D	Computer Co-op/Internship		3-4
	(Applications related – minimum 3 credit hours)		15-16

Range Total Credit Hours/Range Total Contact Hours = 62-64/62-64

*or MTH 110 or higher.
**See suggested electives for CIS majors following the CIS program guides (any program).

COMPUTER INFORMATION SYSTEMS – NETWORKING

Program code: AASCN
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

In the last decade, networks have dramatically changed business and society. This program prepares students for positions in the constantly growing and changing networking industry. Courses in this program cover topics such as cabling, network device configuration, network operating systems, local and wide area networks, analysis and troubleshooting tools, security and network design. Students who complete this program will have the necessary training to sit for applicable industry certification exams, including CompTIA's Network+, Security+, Linux+ and Project+, as well as Cisco's CCNA certification exams.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
CIS 110	CIS Concepts and Careers		4
CIS 115	Microcomputer Applications	**CL**	4
CIS 130	Operating Systems		4
PS 101	Introduction to Political Science	**GA GP**	3
ENG 101	English Composition I	**WR**	3
			18
2nd Semester			**Semester Hours**
MTH 110*	Intermediate Algebra	**MA CT**	4
OA 225**	Business Communications	**OC WR**	4
OR BOTH			
ENG 102**	English Composition II	**WR**	3
SPC 101**	Speech Communication	**OC**	3
CIS 233	Linux+ Certification		4
CIS 120	Intro to Networking – Net+ Certification		4
			16-18
SECOND YEAR – 1st Semester			**Semester Hours**
CIS 222	LAN Administration		4
CIS 223	TCP/IP Protocols		4
CIS 225	Network Security – Security+ Certification		4
CIS 282	Project Management – Project + Certification		4
			16
2nd Semester			**Semester Hours**
BUS 150	Principles of Business	**GA**	4
CIS 224	CCNA certification		4
CIS 297	The CIS Professional		1
CIS 286	Network Analysis and Design		4
CIS 160/ELT 160	A+ Certification		4
or			
CIS 202	Microcomputer Databases	**CL**	
or			
CIS 212	Server+ Certification		4
or			
CIS 221	Protocol Analysis		4
or			
CIS 226	Advanced Security – Certified Ethical Hacker		4
or			
CIS 228B	Special Topics in Cisco Networking		4
or			

CIS 229B	Special Topics in Security	4
or		
CIS237B	Special Topics in Operating Systems	4
or		
CIS 239B	Special Topics in Server Administration	4
or		
CIS 290	Computer Co-op/Internship	3-4
	(Networking related – minimum 3 credit hours)	16-17

Range Total Credit Hours/Range Total Contact Hours = 66-69/66-69

*Students wishing to transfer to a four-year program may need to take a higher level of math. Consult the transfer institution for more information.

**Students planning to eventually transfer to a four-year program may want to take ENG 102 and SPC 101 rather than OA 225.

COMPUTER INFORMATION SYSTEMS − PROGRAMMING

Program Code: AASPR
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

Developing software solutions to harness the ever expanding capabilities of today's computer systems requires technical knowledge and problem solving skills that are in high demand. This Programming degree is designed to prepare students for entry-level positions such as: systems analyst (trainee) or business applications programmer. Students who complete this program will also have the fundamental background required for further study in a four-year computer science program.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 110	CIS Concepts and Careers		4
CIS 115	Microcomputer Applications	**CL**	4
CIS 150	Programming Concepts		2
MTH 110*	Intermediate Algebra	**MA CT**	4
ENG 101	English Composition I	**WR**	3
			17
2nd Semester			**Semester Hours**
CIS 130	Operating Systems		4
CIS 205	Internet Development I	**CL**	4
CIS 275	Visual BASIC Programming	**CL**	4
ENG 102	English Composition II	**WR**	3
			15
SECOND YEAR − 1st Semester			**Semester Hours**
CIS 202	Microcomputer Databases	**CL**	4
CIS 235	Internet Development II		4
CIS 260	Computer Programming I	**CT**	4
SPC 101	Speech Communication	**OC**	3
			15
2nd Semester			**Semester Hours**
CIS 261	Data Structures Programming		4
CIS 297	The CIS Professional		1
BUS 150	Principles of Business	**GA**	4
PS 101	Introduction to Political Science	**GA**	3
CIS 236	Interactive Web Programming		4
or			
CIS 267	Special Topics Programming		3-4
or			
CIS 290	Computer Co-op/Internship		3-4
	(Programming related – minimum 3 credit hours)		15-16

Range Total Credit Hours/Range Total Contact Hours = 62-63/62-63

*or MTH 112 or higher.

COMPUTER INFORMATION SYSTEMS – WEB DEVELOPMENT

Program Code: AASWD
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

This program prepares students for entry-level positions in Web development. The degree includes technical and supporting courses in computer information systems and Web design, as well as training in the business relations skills needed to function effectively as a Web developer. Graduates normally find jobs developing and maintaining websites for a wide range of organizations.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
CIS 110	CIS Concepts and Careers		4
CIS 115	Microcomputer Applications	**CL**	4
MTH 110	Intermediate Algebra	**MA CT**	4
ENG 101	English Composition I	**WR**	3
			15
2nd Semester			**Semester Hours**
CIS 205	Internet Development I	**CL**	4
CIS 206	Web Foundations Site Developer Certification		1
CIS 130	Operating Systems	**CL**	4
BUS 150	Principles of Business	**GA**	4
CIS 150	Programming Concepts		2
PS 101	Introduction to Political Science	**GA GP**	3
			18
SECOND YEAR – 1st Semester			**Semester Hours**
CIS 260	Computer Programming I	**CL CT**	4
or			
CIS 275	Visual BASIC Programming (winter semester)	**CL**	4
CIS 202	Microcomputer Databases	**CL**	4
CIS 235	Internet Development II		4
OA 225	Business Communications	**OC WR**	4
			16
2nd Semester			**Semester Hours**
BUS 180	Marketing Principles		4
CIS 252	Web Client Programming		4
CIS 254	Web Server Programming		4
CIS 290	Computer Co-Op/Internship (Web Development related – minimum 3 credit hours)	**CL**	3-4
or	Suggested Elective		3
CIS 297	The CIS Professional		1
			16-17

Total Credit/Total Contact Hours = 65/66

COMPUTER INFORMATION SYSTEMS − COMPUTER APPLICATIONS

Program Code: CERAP
CERTIFICATE
Computer and Office Technology Department (810) 989-5628

The following certificate program is designed for students who need the necessary preparation for career opportunities in the computer information systems field as an entry level computer professional. Courses transfer directly into the Computer Information Systems − Applications associate degree program.

Suggested Course Sequence

1st Semester			**Semester Hours**
CIS 110	CIS Concepts and Careers		4
CIS 115	Microcomputer Applications	**CL**	4
CIS 120	Introduction to Networking		4
CIS 130	Operating Systems		4
			16
2nd Semester			**Semester Hours**
CIS 200	Electronic Spreadsheets		4
CIS 202	Microcomputer Data Bases	**CL**	4
CIS 205	Internet Development	**CL**	4
CIS 275	Visual BASIC Programming		4
or			
CIS 260	Computer Programming I	**CT**	4
or			
CIS 160 / ELT 160	A+ Certification		4
			16

Total Credit Hours/Total Contact Hours = 32/32

CIS SUGGESTED ELECTIVES

COMPUTER INFORMATION SYSTEMS
SUGGESTED ELECTIVES FOR CIS MAJORS (any program)
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

Elective courses may be chosen from any 100-level or higher course, but the following courses are suggested as being particularly beneficial and relevant for CIS majors.

ACD 140	Introduction to Computer Graphics		3
BUS 155	Principles of Management		3
CIS 120	Introduction to Networking		4
CIS 225	Network Security		4
CIS 233	Linux+ Certification		4
CIS 267	Special Topics in Computer Programming		3-4
CIS 160 / ELT 160*	A+Certification		4
OA 101	Personal Keyboarding (students attain 25 wpm)		1
OA 110	Beginning Keyboarding (students attain 40+ wpm)		3
OA 115	Intermediate Keyboarding	**CL**	4
OA 130	Time and Project Management		1
OA 161	Office Technology	**CT OC**	4
OA 164	PowerPoint Presentation Graphics		1

* Course may count as an elective OR toward the program sequence, not BOTH.

College credit may be given for earned industry certifications (see list below).

Industry Certification	**SC4 Course Awarded**
A+Certification	CIS 160 A+ Certification
Network+ Certification	CIS 120 Introduction to Networking
Security+ Certification	CIS 225 Network Security
Server+ Certification	CIS 239B Special Topics in Server Administration
Linux+ Certification	CIS 233 Linux+ Certification
iNet Certification	General CIS Credits
CWNP Cert. Wireless Network Prof.	CIS 238 Web Server Administration
MCSE	CIS 130 & CIS 237 Operating Systems
CNA	CIS 237 Spec. Topics in Operating Systems
CNE	CIS 237 Spec. Topics in Operating Systems
CCNP	CIS 228 Spec. Topics in Cisco Networking
RHA	CIS 233 Linux+ Certification
MOS	CIS 115 Microcomputer Applications
MCAS	CIS 115 Microcomputer Applications
IC3	CIS 110 CIS Concepts and Careers

Student must provide proof of completion in order to receive credit. Testing and/or a personal meeting may be required. Contact the Computer and Office Technology Department with questions at (810) 989-5628. If other certifications have been earned, contact department for articulation review.

**Please check with an advisor for complete details on industry certifications and equivalent Computer Information Systems courses.

CRIMINAL JUSTICE PROGRAM

Social Science Department (810) 989-5707

The Criminal Justice program provides the student with the information and skills to effectively progress to the university level or enter the workforce with the required employment prerequisite education.

Two degree options are available:
CORRECTIONS and LAW ENFORCEMENT

CORRECTIONS
Corrections graduates possess the education and training to pursue careers as correctional officers in county jails, corrections facilities, juvenile corrections facilities, the state correctional system and federal correctional facilities. In addition, students who follow the MACRAO statewide college and university transfer agreement may pursue additional years of education at a four-year institution to earn a bachelor's degree in criminal justice and seek employment as a probation officer, parole officer, correctional caseworker or social worker.

Students in the Corrections program may take classes in corrections, criminal justice, psychology and sociology, all of which are acceptable prerequisites for the 15 hours of college credit required for employment by the Michigan Department of Corrections. Students who complete an Associate's Degree in Corrections also are eligible for promotions within the Michigan Department of Corrections. A complete listing of employment requirements can be found at www.michigan.gov/corrections.

Corrections applicants who have been convicted of a felony or misdemeanor should contact potential employers to determine employment restrictions based upon these convictions.

LAW ENFORCEMENT
Students who have a desire to pursue careers in law or as peace officers or other state-level enforcement occupations should select criminal justice – law enforcement. This curriculum is designed for students to customize their degree to best suit their interests in law or law enforcement. Students who follow the MACRAO statewide college and university transfer agreement may pursue additional years of education at a four-year institution to earn a bachelor's degree in criminal justice. Graduating students wishing to become a certified police officer will have the necessary education to enter a state-certified police academy. Graduates wishing to become a certified police officer must meet the Michigan Commission on Law Enforcement Standards (MCOLES) entrance requirements available at www.michigan.gov/mcoles.

Law enforcement applicants who have been convicted of a felony or misdemeanor should contact potential employers to determine employment restrictions based upon these convictions.

CRIMINAL JUSTICE − CORRECTIONS

Program Code: AASCR
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Social Science Department (810) 989-5707

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
CJ 101	Introduction to Criminal Justice		3
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GP GA**	3
SOC 101	Principles of Sociology	**GA**	3
			16
2nd Semester			**Semester Hours**
CJ 121	Introduction to Corrections		3
ENG 102	English Composition II	**WR**	3
PSY 180	Introduction to Psychology	**CT**	4
SOC 110	Social Problems	**CT**	3
SPC 101	Speech Communications	**OC**	3
			16
SECOND YEAR − 1st Semester			**Semester Hours**
BUS 158*	Business Math	**MA CT**	4
CJ 222	Client Relations in Corrections		3
CJ 224	Legal Issues in Corrections		3
CJ 228	Probation and Parole		3
PSY 260	Abnormal Psychology		4
			17
2nd Semester			**Semester Hours**
CJ 208A	Field Service Observation		1
CJ 223	Correctional Institutions		3
CJ 226	Client Growth Development in Corrections		3
	Criminal Justice – Corrections Approved Electives		6
			13

Total Credit Hours/Total Contact Hours = 62/62

*Transferring students need to take a higher level math course. Please contact the Student Success Center at (810) 989-5520 or the Social Science Department at (810) 989-5707 for assistance with selecting the appropriate math course.

Criminal Justice – Corrections Electives:

CHI 101	Introductory Mandarin Chinese I or higher		3
CJ 104	Delinquency Prevention and Control		3
CJ 119	The Court Function		3
CJ 202	Criminal Law		3
CJ 210	Dynamics of Substance Abuse		4
FR 101	Introductory French I or higher		4
GR 101	Introductory German I or higher		1
PE 110	Defensive Tactics		1
PE 129	Physical Conditioning		3
PE 143	Emergency Medical Care		4
SP 101	Introductory Spanish I or higher		3
SOC 200	Social Psychology		3
SOC 201	Minority Relations	**GA CT**	3
SOC 211	Criminology		3

CRIMINAL JUSTICE − LAW ENFORCEMENT

Program Code: AASCL
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Social Science Department (810) 989−5707

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
CJ 101	Introduction to Criminal Justice		3
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GP GA**	3
SOC 101	Principles of Sociology	**GA**	3
			16

2nd Semester			**Semester Hours**
CJ 105	Police Procedures		3
CJ 119	The Court Function		3
ENG 102	English Composition II	**WR**	3
PSY 180	Introduction to Psychology	**CT**	4
SPC 101	Speech Communications	**OC**	3
			16

SECOND YEAR – 1st Semester			**Semester Hours**
BUS 158*	Business Math	**MA CT**	4
CJ 202	Criminal Law		3
CJ 206	Traffic Law and Accident Investigation		3
CJ 208A	Field Service Observation		1
CJ 215	Basic Criminal Investigation		3
			14

2nd Semester		**Semester Hours**
CJ 208B	Field Service Observation	1
CJ 211	Police Organization, Systems and Issues	3
CJ 213	Legal Aspects for Law Enforcement	3
	Criminal Justice – Law Enforcement Approved Electives	6
	Sociology Elective (From Criminal Justice – Law Enforcement Approved List)	3
		16

Total Credit Hours/Total Contact Hours = 62/62

*Transferring students need to take a higher level math course. Please contact the Student Success Center at (810) 989-5520 or the Social Science Department at (810) 989-5707 for assistance with selecting the appropriate math course.

Criminal Justice – Law Enforcement Electives:

CHI 101	Introductory Mandarin Chinese I or higher	4
CJ 104	Delinquency Prevention and Control	3
CJ 109	Introduction to Private Security	3
CJ 121	Introduction to Corrections	3
CJ 210	Dynamics of Substance Abuse	3
CJ 220	Special Offense Investigation	3
CJ 223	Correctional Institutions/Facilities	3
FR 101	Introductory French I or higher	4
GR 101	Introductory German I or higher	4
PE 110	Defensive Tactics	1
PE 129	Physical Conditioning	1
PE 143	Emergency Medical Care	3
PSY 260	Abnormal Psychology	4
SP 101	Introductory Spanish I or higher	4
SOC 110	Social Problems	3
SOC 200	Social Psychology	3
SOC 201	Minority Relations **GA CT**	3
SOC 211	Criminology	3

EARLY CHILDHOOD EDUCATION

Program Code: AASEE
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Social Science Department (810) 989-5707

Early childhood professionals act as parent substitutes and are responsible for the care, safety and personal conduct of the children in their charge. In addition to providing for children's health, safety and basic needs, early childhood professionals foster learning in young children by planning and implementing developmentally appropriate activities and experiences. They create a homelike atmosphere by offering support and counsel, and by providing for the physical necessities of the children in their care. Child care settings include home settings, preschool or nursery school center settings, Head Start and public schools. Position titles and the amount of responsibility vary: nanny, child care or nursery school worker/ attendant, classroom or recreational aide, classroom assistant or preschool teacher, paraprofessional, owner and/or director of a child care facility.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ENG 101*	English Composition I	**WR**	3
CIS 115	Microcomputer Applications	**CL**	4
PS 101*	Introduction to Political Science	**GA GP**	3
HS 100	Programs and Services for Individuals, Children and Families		3
SPC 101*	Speech Communication	**OC**	3
			16
2nd Semester			**Semester Hours**
ECE 105	Introduction to Early Childhood Education		3
ENG 102*	English Composition II	**WR**	3
MTH 104**	Foundations of Math	**MA CT**	3
or			
MTH 105**	Foundations of Math I	**MA CT**	3
AND			
MTH 106**	Foundation of Math II	**MA CT**	3
PSY 180*	Introduction to Psychology	**CT**	4
			13-16
SECOND YEAR − 1st Semester			**Semester Hours**
ECE 200A	Early Childhood Education Practicum		1
ECE 204	Health, Safety and Nutrition for Young Children		3
GEO 101*	Earth Science		4
ECE 205	Supportive Learning Environments for Young Children		3
PSY 210*	Child Psychology		3
or			
PSY 220*	Life Span Developmental Psychology		4
	Electives (select a Global Awareness elective from approved list)	**GA**	2-4
			16-19
SECOND YEAR − 2nd Semester			**Semester Hours**
ECE 206	Developmental Curriculum for Young Children		3
ECE 211	Creative Art for Young Children		3
ENG 252*	Children's Literature	**CT**	3
Electives	Electives (select from approved list)		5
			14

Range Total Credit Hours/Range Total Contact Hours = 62-65/63+

Approved Electives:			**Semester Hours**
BIO 150*	Natural History		4
BIO 270	Environmental Issues	**CT**	3
ECE 108	Caring for Infants and Toddlers		3
ECE 109	Working with School-age Children		3
ECE 200B−D	Early Childhood Education Practicum		1-3
ECE 207	Child Development Associate (CDA) Assessment Preparation		3
ECE 275	Early Childhood Program Administration		3
ED 101	Introduction to a Career in Teaching		3
ED 120	Educational Behavior Management		3
ED 205	Integrative Arts in the Classroom		3
ED 220	Introduction to Exceptional Learners		4
GEO 102*	Human Geography	**GA**	3
HIS 149*	History of the U.S., 1607 to 1876	**GA**	4
HIS 150*	History of the U.S., 1877 to Present	**GA**	4
HIS 175	History of Michigan		3
PHS 101	Foundation of the Physical Sciences		4
PS 150*	Multicultural Awareness and Intercultural Comm.	**GA**	2
PSY 190*	Introduction to Counseling and Empathy Techniques		3
PSY 200*	Social Psychology (or SOC 200)		3
PSY 225*	Adolescent and Adult Psychology		2
PSY 240*	The Psychology of Adjustment and Mental Health		3
SOC 101*	Principles of Sociology	**GA**	3
SOC 160*	Marriage and Family		3

*Satisfies MACRAO for transfer (includes 6 credits of English Composition, 8 credits of Math and Science, 8 credits of Social Science and 8 credits of Humanities). Students planning to transfer to a four-year university need to follow a transfer program sheet for the respective college to which they wish to transfer. Plan to work closely with an advisor or the discipline coordinator if you are planning to transfer.

**or MTH 110 or higher.

Students may acquire hours of formal child care training and education toward completion of the CDA credential, renewal of CDA and child care licensing requirements for Michigan.

For those students wishing to pursue a bachelor's degree, SC4 has an articulation agreement with Madonna University. Contact the discipline coordinator or Student Success Center for details.

EARLY CHILDHOOD EDUCATION CDA

Program Code: CREEC
CHILD DEVELOPMENT ASSOCIATE CREDENTIALING PROGRAM
Social Science Department (810) 989-5707

The Child Development Associate (CDA) credentialing program is designed to assist and support students planning to apply for the National CDA credential. Courses within the program allow the student to obtain the required 120 clock hours of formal child-care training and education, with no fewer than 10 clock hours in each of the eight content areas outlined by the National Credentialing Program.

Suggested Course Sequence

Required Courses		**Credit Hours**
ECE 105**	Introduction to Early Childhood Education	3
ECE 205*	Supportive Learning Environments for Young Children	3
ECE 206*	Developmental Curriculum for Young Children	3
PSY 210*	Child Psychology	3
or		
PSY 220*	Life Span Developmental Psychology	4
		Total 12-13
ECE 207*	Child Development Associate (CDA) Assessment Preparation **(recommended)**	3
		Range Total Credit Hours = 15-16

Additional Suggested Courses:			**Semester Hours**
ECE 108	Caring for Infants and Toddlers		3
ECE 200A-D	Early Childhood Education Practicum		1-4
ECE 204	Health, Safety and Nutrition for Young Children		3
ECE 211	Creative Art for Young Children		3
ECE 275	Early Childhood Program Administration		3
ENG 252*	Children's Literature	**CT**	3
HS 100	Programs and Services for Individuals, Children and Families		3

*Prerequisites may need to be taken prior to enrolling in these courses.
**Students planning to complete the CDA in one year will need to take ECE 105 in the spring or summer session. Plan to work closely with the discipline coordinator for course scheduling purposes.
Students may acquire clock hours for formal child care training and education toward completion of the CDA credential, the Michigan Department of Education Paraprofessional requirements and child care licensing requirements for Michigan.

ELECTRONICS AND COMPUTER TECHNOLOGY

Program Code: AASEL
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

One of the most rapidly expanding areas in modern industry is the field of electronics. There is an ever-increasing demand by industry for trained electronics technicians to assist in the development, maintenance, testing and repair of modern electronic equipment. This course work provides the technical knowledge and skills necessary for entry-level employment in industry as technicians in electronics layout, instrumentation, design, lab work, field service or as an engineering aide. Technicians may also install microcomputers, maintain communications equipment, write technical reports or work in sales and service of instrumentation equipment.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ELT 130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
ELT 135	Digital Circuits		3
MTH 110*	Intermediate Algebra	**MA CT**	4
	**Elective		4
			15

2nd Semester			**Semester Hours**
ELT 131	Semiconductor Devices and Circuits	**GA**	4
ELT 160	A+ Certification		4
ELT 236	Microcontrollers: Energy Control Systems I	**OC CL CT**	4
IA 100	Electrical Power and Control Circuits I		3
			15

SECOND YEAR − 1st Semester			**Semester Hours**
ELT 231	Industrial Electronics	**OC**	3
ENG 101	English Composition I	**WR**	3
IA 102	Programmable Logic Controllers	**CL**	3
MTH 111	Plane Trigonometry	**MA CT**	2
	**Elective		6
			17

2nd Semester			**Semester Hours**
ELT 232	Communications Circuit		3
ELT 232L	Communications Circuits Lab		1
ENG 102	English Composition II	**WR**	3
PHY 130	Physics for Technology Students		5
PS 101	Introduction to Political Science	**GP GA**	3
			15

Total Credit Hours/Range Total Contact Hours= 62/80+

*Students have the option of taking MTH 112 as a replacement for MTH 110 and MTH 111. However, due to transfer agreements with W.S.U., L.S.S.U. and F.S.U. into Electrical Engineering Technology (BSEET) programs, students may want to substitute courses for maximum transfer credit (MTH 113 and MTH 114). Contact Engineering Technology Department at (810) 989-5754 for more details. Should a student choose to substitute MTH 112 for MTH 110 and MTH 111, an additional course with a Critical Thinking (CT) competency must be taken to meet graduation competency requirements. Student must also complete a minimum of 62 credits for degree.

**Elective: Must choose from ELT 105, CIS 120, NTR 100 or any AET course.

Note: ELT 130A, ELT 130B and ELT 131 combined are equal to one Global Awareness (GA) competency. ELT 231 and ELT 236 together equal one Oral Communication (OC) competency.

ELECTRONICS AND COMPUTER TECHNOLOGY (CERTIFICATE)

Program Code: CERET
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Electronics and Computer Technology certificate program is designed for students with an interest in computer repair, computer interfacing, preparation for the A+ Certification exam and the electronic components inside the computer. No prior electronic or computer background is required. Courses fit into the Electronics and Computer Technology associate degree program.

Suggested Course Sequence

1st Semester			**Semester Hours**
ELT 130A	Fundamentals of Direct Current Electronics		2
ELT 130B	Fundamentals of Alternating Current Electronics		2
ELT 135	Digital Circuits		3
MTH 110	Intermediate Algebra	**MA CT**	4
	*Elective		4
			15

2nd Semester			**Semester Hours**
ELT 131	Semiconductor Devices and Circuits	**GA**	4
ELT 160	A+ Certification		4
ELT 236	Microcontrollers: Energy Control Systems I	**CL CT**	4
IA 102	Programmable Logic Controllers	**CL**	3
			15

Total Credit Hours/Range Total Contact Hours = 30/40+

*Elective must be taken from the following list: ELT 105, CIS 120, NTR 100, any AET course, MTH 111(or higher math), PHY 130, ENG 101, ENG 102, PS 101. Contact Engineering Technology Department with questions at (810) 989-5754.

ELECTRICAL/INDUSTRIAL

Program Code: CEREI
CERTIFICATE
Engineering Technology Department (810) 989-5754

This program is for individuals who wish to upgrade their skills, or pursue a career in troubleshooting industrial control circuitry. Motor control circuits, basic electronics, hydraulic and pneumatic circuits, and programmable controllers are applied in the laboratory sessions. Courses transfer directly into the Robotics/Automation Technology and Mechatronics associate degree programs.

Suggested Course Sequence

1st Semester			**Semester Hours**
ELT 130A*	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
IA 100	Electrical Power & Control Circuits I		3
IA 143	Fluid Power & Control Circuits I		3
MTH 110*	*Intermediate Algebra	**CT MA**	4
			14
2nd Semester			**Semester Hours**
IA 101	Introduction to Robotics/Automation		3
IA 102	Programmable Logic Controllers	**CL**	3
IA 243	Fluid Power & Control Circuits II		3
ELT 131	Semiconductor Devices and Circuits	**GA**	4
ELT 236	Microcontrollers: Energy Control Systems I	**CL CT OC w/ELT 231**	4
			17

Total Credit Hours/Total Contact Hours = 31/52

*MTH 101 or appropriate placement by college assessment or ACT score is a prerequisite to ELT 130A.
**or MTH 112 or higher.
Transfer students should take MTH 112, MTH 113 & MTH 114. See program advisor for recommendation.

ENGINEERING GRAPHICS TECHNOLOGY

Program Code: AASDD
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

Students of the Engineering Graphics Technology program take a series of courses covering the principles of engineering graphics that provide extensive laboratory experience, stressing the application of those principles. This program provides hands-on experience to prepare students for employment in association with engineers and designers. The diversity of the curriculum provides opportunities for students to develop proficiency in specialized areas such as bodyline design, tool and die and injection mold design.

While most graduates enter the job market as engineering graphics technicians and work with engineers in the preparation of technical drawings, some graduates enter fields where they are responsible for the interpretation and implementation of drawings. Other technologists become designers and assist engineers in preparing design details and specifications for engineering projects.

Suggested Program Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
EG 110*	Introduction to Drafting		2
EG 111*	Fundamentals of Computer Aided Drafting		2
ENG 101	English Composition I	**WR**	3
MFT 111	Machine Tools	**GA**	4
PS 101	Introduction to Political Science	**GA GP**	3
QA 117	Statistical Process Control I	**OC**	3
			17
2nd Semester			**Semester Hours**
EG 161	Descriptive Geometry		4
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 163	SolidWorks-Product Design & Development		3
MTH 110**	Intermediate Algebra	**MA CT**	4
			15
SECOND YEAR – 1st Semester			**Semester Hours**
EG 115	Geometric Dimensioning and Tolerancing	**GA**	2
EG 164	CATIA Basics		2
EG 265	Introduction to Mold Design		3
EG 267	Tool and Die Design		3
ENG 102	English Composition II	**WR**	3
MTH 111**	Plane Trigonometry	**MA CT**	2
			15
2nd Semester			**Semester Hours**
EG 266	Jig/Fixture Design		3
EG 270	Advanced Solid Modeling		2
IA 101	Introduction to Robotics/Automation		3
MFT 211	Beginning NC/CNC Programming		3
PHY 130	Physics for Technology Students		5
			16

Total Credit Hours/Total Contact Hours = 63/88.5

*Students must take both EG 110 & EG 111 if no previous drafting experience – see program advisor for recommendation, or contact Engineering Technology Department at (810) 989-5754. EG 180, Engineering Graphics, may be taken as a replacement for EG 110 & EG 111; see program advisor.

**Student has the option of taking MTH 112 as a replacement for MTH 110 and 111. If choosing MTH 112, an additional course from the Critical Thinking (CT) list must be taken to meet graduation competency requirements. Student must also complete a minimum of 63 credits for degree.

A transfer agreement exists with Wayne State University. See program advisor for details on transfer of credit.

ENGINEERING GRAPHICS TECHNOLOGY (CERTIFICATE)

Program Code: CERDI
CERTIFICATE
Engineering Technology Department (810) 989-5754

This program is for those who desire a working knowledge of fundamental drafting as applied to the machine tool industry. This program will prepare students for entry-level jobs as technicians who support and work with engineers in the preparation of technical drawings. The skills taught in these courses are needed for manufacturing-related jobs that rely on drawings to provide clear and complete information.

Suggested Course Sequence

1st Semester			**Semester Hours**
EG 110*	Introduction to Drafting		2
EG 111*	Fundamentals of Computer-Aided Drafting		2
EG 115	Geometric Dimensioning and Tolerancing	**GA**	2
MFT 111	Machine Tools	**GA**	4
MTH 112**	Intermediate Algebra & Plane Trigonometry	**MA CT**	5
			15
2nd Semester			**Semester Hours**
EG 161	Descriptive Geometry		4
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 163	SolidWorks − Product Design & Development		3
ENG 101	English Composition I	**WR**	3
	***Elective (EG or MFT)		4
			18

Total Credit Hours/Range Total Contact Hours = 33/42.5+

*Students with drafting experience should contact the Engineering Technology Department at (810) 989-5754 for a possible substitution of EG 180 or another approved course.
**Student has the option of taking MTH 110 and MTH 111 for MTH 112. Contact the Engineering Technology Department at (810) 989-5754.
***Required electives must be taken the from EG or MFT disciplines.

ENGINEERING (TRANSFER)

Program Code: AETGE
ASSOCIATE IN ENGINEERING (Transfer Program)
Math and Science Department (810) 989-5663

This program is intended for students wishing to complete an associate degree while preparing to transfer to a four-year school to pursue a degree in engineering. Since transfer requirements vary by institution, students are strongly encouraged to meet with representatives from the transfer school. **In addition, students should work closely with the SC4 Math and Science Department and the Student Success Center.**

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
MTH 114	Calculus I	**MA CT**	4
CHM 111	Chemistry Theory and Principles with Analysis		5
ENG 101*	English Composition I	**WR**	3
EG 180	Engineering Graphics		4
PS 101	Introduction to Political Science	**GA GP**	3
			19
2nd Semester			**Semester Hours**
MTH 215	Calculus II	**MA CT**	4
CIS 150**	Programming Concepts		2
ENG 102***	English Composition II	**WR**	3
PHY 115	Introduction to Engineering		3
	Electives**** (select from approved list below)	**GA**	4
			16
SECOND YEAR − 1st Semester			**Semester Hours**
MTH 210	Linear Algebra	**MA CT**	3
MTH 216	Calculus III	**MA CT**	4
PHY 221	Mechanics, Heat and Sound		5
CIS 264	C++ Programming	**MA CT**	4
			16
2nd Semester			**Semester Hours**
MTH 217	Differential Equations	**MA CT**	4
PHY 222	Electricity, Light and Modern Physics		5
PHY 231*****	Statics		3
SPC 101	Speech Communication	**OC**	3
			12-15

Range Total Credit Hours/Range Total Contact Hours = 63-66/70-73

*ENG 101T − Introduction to Writing for Technical students may be substituted.
** or CIS 115.
***ENG 104 − Technical Report Writing may be substituted.
****Elective must include one of the following: ART 121, ART 122, BUS 221, BUS 222, GEO 102, HIS 101, HIS 102, HIS 149 or HIS 150.
*****PHY 231 − Statics may not be required for some programs. See the Student Success Center or an engineering school representative from your university of choice. Students choosing not to take PHY 231 must complete all degree requirements and have a minimum of 62 credits to graduate.

FABRICATION AND DESIGN

Program Code: AASFD
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

Fabrication and Design students will take a series of courses covering principles of Architectural Design, Engineering Graphics, CNC Precision Machining and Welding that involve extensive hands-on lab experience stressing application as well as principles. The diverse curriculum will allow students to develop proficiency in the specialized welding of their choice, as well as the subsequent design processes that align with manufacturing principles.

Suggested Course Sequence

FIRST YEAR −1st Semester			**Semester Hours**
AD 120	Architectural Basics		2
AD 121	Structural Basics		1
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
ENG 101	English Composition I	**WR**	3
WELD 110A*	Basic Oxyacetylene Welding, Cutting & Brazing		1
WELD 110B	Basic Shielded Metal Arc Welding I		1
WELD 110C	Gas Metal Arc/Gas Tungsten Arc Welding		1
MFT 111	Machine Tool	**GA**	4
			17
2nd Semester			**Semester Hours**
EG 162	Advanced Drafting with AutoCAD	**CL**	4
EG 163	SolidWorks – Product Design & Development		3
MFT 211	Beginning NC/CNC Programming	**CL**	3
MTH 110**	Intermediate Algebra	**CT MA**	4
WELD 114	Print Reading and Fabrication Design		3
			17
SECOND YEAR − 1st Semester			**Semester Hours**
EG 115	Geometric Dimensioning & Tolerancing	**GA**	2
EG 164	CATIA Basics		2
MTH 111**	Plane Trigonometry	**CT MA**	2
QA 117	Statistical Process Control	**OC**	3
MFT 214	Machine Tool Advanced		4
WELD	Electives		3
			16
2nd Semester			**Semester Hours**
EG 266	Jig & Fixture Design		3
ENG 102	English Composition II	**WR**	3
PS 101	Introduction to Political Science	**GA GP**	3
WELD 219	Fabrication		3
WELD	Electives		3
			15

Total Credit Hours/Range Total Contact Hours = 65/98-100

Student is to choose WELD Electives from below list, see Welding instructor for help with sequence:

WELD 210	Shielded Metal Arc Welding Advanced	3
WELD 211	M.I.G. Welding, Advanced	2
WELD 212	M.I.G. Pipe Welding	4
WELD 213	M.I.G. Pipe Welding, Advanced	3
WELD 214	T.I.G. Welding, Advanced	2
WELD 215	T.I.G. Pipe Welding	4
WELD 216	T.I.G. Pipe Welding, Advanced	3
WELD 220	S.M.A.W. Pipe Welding	4
WELD 221	S.M.A.W. Pipe Welding, Advanced	3

*All welding courses are taught on an individualized, self-paced, open lab basis. Class times are available both day and evenings.
**Students have the option of taking MTH 112 as a replacement for MTH 110 and MTH 111. If this option is chosen, student must select another course from the Critical Thinking list. See program advisor for recommendation, or contact Engineering Technology Department at (810) 989-5754.

FRESHWATER SYSTEMS – WATER MONITORING AND ASSESSMENT

Program Code: AASFW
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Math and Science Department (810) 989-5663

This program is designed to prepare students to work in various jobs related to the assessment and maintenance of freshwater systems. Students will learn about freshwater systems that provide water for residential and industrial use, and also of the return of that water to the system from which it was taken. Employees with this training can benefit small businesses and operations whose management has limited experience in environmental issues and regulatory compliance.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
BIO 100	Principles of Biology	**CT**	4
MTH 110	Intermediate Algebra	**MA CT**	4
NTR 130	Environmental Assessment and Regulation		3
			14
2nd Semester			**Semester Hours**
ENG 102	English Composition II	**WR**	3
CHM 101	Introduction to Inorganic Chemistry		4
BIO 220	Ecology		4
GLG 101	Physical Geology		4
			15
Spring/Summer			**Semester Hours**
NTR 150	Environmental Management		2
			2
SECOND YEAR – 1st Semester			**Semester Hours**
PS 101	Introduction to Political Science	**GA GP**	3
BIO 240	Freshwater Biology		4
CIS 115	Microcomputer Applications	**CL**	4
NTR 210	Environmental Information		3
SPC 101	Speech Communication	**OC**	3
			17
2nd Semester			**Semester Hours**
BUS 221	Principles of Economics I	**GA CT**	3
CHM 210	Instrumental Analysis		5
GEO 210	Introduction to Geographic Information Systems		3
NTR 230	Environmental Law		3
			14
Spring/Summer			**Semester Hours**
BIO 290	Advanced Freshwater Biology		2
			2

Total Credit Hours/Total Contact Hours = 64/84

NOTE: For students wishing to pursue a four-year degree in Freshwater Studies, there are Associate of Arts and Associate of Science options. Contact the Math and Science Department at (810) 989-5663 or an academic advisor at (810) 989-5520 for details.

GENERAL TRANSFER STUDIES (MACRAO)

Program Code: CERTR
CERTIFICATE
Student Success Center (810) 989-5520

The General Transfer Studies certificate program is intended for students who wish to transfer to a four-year college or university after completing one year of coursework at SC4. Completion of this certificate program will satisfy the MACRAO requirements (a transfer agreement in the state of Michigan that assists students with the transferability of general education requirements).

Required courses are flexible and may be customized to meet the needs of the student based upon the transfer institution requirements. Most transfer institutions will accept a minimum of 60 credit hours from SC4; therefore, students are encouraged to take additional courses beyond the Transfer Certificate requirements.

Students seeking the Transfer Certificate **must work closely with the transfer school of choice as well as an SC4 advisor** to help ensure the appropriate courses are taken at SC4.

Required Courses		**Semester Hours**
ENG 101	English Composition I	3
ENG 102	English Composition II	3
	*Social Science Requirement	8
	**Humanities Requirement	8
	***Science and Math Requirement	8

Total Credit Hours/Range Total Contact Hours = 30/30-32

***Social Science Requirement** − must select classes from ANT, PS, PSY, SOC, HIS, GEO (not GEO 101, 105, 137 or 210), BUS 221 or BUS 222. Courses must be from more than one subject area (i.e., you cannot take two PSY classes to fulfill this requirement).
****Humanities Requirement** − must select classes from SPC, ART, MUS, THA, PHL, HIS (101 and 102 only), SP, FR, GR or ENG 200 level classes. Courses must be from more than one subject area (i.e., you cannot take two ART classes to fulfill this requirement).
*****Science and Math Requirement** − must select classes from AST, CHM, GEO (101, 105, 137 and 210 only), GLG, PHY, PHS, AGR, BIO or MTH 104 and higher. Courses must be from more than one subject area (i.e. you cannot take two MTH classes to fulfill this requirement) and include at least one lab science.

HEALTH INFORMATION TECHNOLOGY OVERVIEW

ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Health and Human Services Department (810) 989-5507

The associate degree in Health Information Technology prepares students to enter the Health Information Management profession. Upon successful completion of the program, graduates will be prepared for employment in entry-level positions in a variety of health care settings, including acute care hospitals, skilled nursing facilities, physician practices, rehabilitation centers, clinics, private consulting firms and veterinary medicine facilities. There also are many opportunities in non-traditional settings such as law firms, insurance companies and pharmaceutical companies. Graduates may be employed in a variety of roles, including, but not limited to, coder, electronic health record specialist, decision support specialist, regulatory/compliance specialist and release of information specialist. This is a two-year program and includes both liberal arts and health information technology courses. However, a student may choose to complete any of the liberal arts courses prior to program admission.

This program includes two Professional Practice Externships (PPEs). One will be virtual and one will be on-site in a health care setting. Transportation to and from the on-site PPE is the sole responsibility of the student. Students will be required to dress in appropriate business or business casual attire as mandated by the PPE site.

PRE-ADMISSION REQUIREMENTS

If you have previously attended college, you may already have a head start toward your degree. See an SC4 advisor for additional information.

1. Take COMPASS assessment testing or provide ACT testing results. If indicated by testing scores, students will be required to take developmental courses, including, but not limited to, ENG 050, ENG 075, RD 050 and MTH 050. These developmental courses must be completed with a grade of “C” or better.
2. Attain appropriate placement by COMPASS assessment testing or ACT score into MTH 110 Intermediate Algebra. If testing at this level is not attained, students will be required to take MTH 102. MTH 102 must be completed with a grade of “C” or better.
3. Complete BIO 271 Human Anatomy and Physiology I or BIO 272 Human Anatomy and Physiology II (for new students) with a grade of “C” or better.

   NOTE: If you previously have taken BIO 160 Anatomy and Physiology and BIO 172 Human Anatomy and Physiology II, they may be accepted in the place of BIO 271. See an advisor for details.
4. Complete HE 102 Medical Terminology with a grade of “C” or better.

   NOTE: If you previously have taken OA 280 Medical Terminology and Transcription or OA 280A Medical Terminology, they may be accepted in the place of HE 102. See program director for details.
5. Complete CIS 115 Microcomputer Applications with a grade of “C” or better.
6. Complete OA 101 Personal Keyboarding on Microcomputers, OA 110 Beginning Keyboarding or OA 115 Intermediate Keyboarding with a grade of “C” or better.

Biology classes (160, 271, 272), HE 102 and CIS 115 must be completed within five academic years of admission to the Health Information Technology program. (Students who completed BIO 272 within the last five academic years, but completed BIO 271 earlier than the last five academic years, will be considered as having met pre-application requirements. These students will not be required to repeat BIO 271.)

Pre-application requirements must be completed and application to the Health Information Technology program must be received by May 30 for admission to program in fall semester. (Note that PN 140 must be taken in summer session if starting the program in fall semester.) Pre-application requirements must be completed and application to the program must be received by Nov. 30 for admission to the program in winter semester.

This is not a competitive admission program, however, space is limited. Thirty seats will be available each fall semester and 60 seats will be available each winter semester. Seats will be filled on a first-qualified, first-served basis. Therefore, fulfillment of these requirements does not guarantee immediate admission to the program. Students may be waitlisted for the next available semester.

The Joint Commission for Accreditation of Healthcare Organizations requires that all facilities verify information on criminal background for all persons working in the facility. This requirement 'applies to staff, students and volunteers.' As all students will be required to complete at least one on-site PPE with a facility, students will be required to undergo a criminal background check and fingerprinting, for which the student will incur the costs. If a student has a criminal felony record, they should contact the Health Information Technology program director, as this could affect completion of the program. Additionally, students will be required to undergo a physical, which may include drug screening, TB testing and vaccination verification. These expenses are the student's responsibility.

APPLYING FOR ADMISSION

Persons seeking admission to the Health Information Technology program must do the following:

1. Submit to the SC4 Enrollment Services office:
    a. A completed Application for Admission to SC4, indicating Anticipated Allied Health (ANTAH) as the program of study.
    b. A completed Allied Health program application, indicating Health Information Technology as the intended program of study by May 30 of the application year for fall start and by Nov. 30 for winter start.
    c. A copy of official college transcripts by May 30, if student has previously attended a college or university other than SC4. For winter start, by Nov. 30 of the year prior to starting program.

ACCEPTANCE PROCEDURE

Students submitting qualified applications will be accepted to the program on a first-qualified, first-served basis, until all available seats are filled. Once all seats are filled, students will be placed on a waitlist for the next available semester.

PROGRAM EXPECTATIONS

Once admitted to the Health Information Technology program, the following expectations are to be met:

1. Students are expected to regularly attend all classes.
2. Students are expected to demonstrate professional behaviors as outlined in the Health Information Technology program policies. Failure to demonstrate these behaviors may result in a failing grade for a course, regardless of the degree of progress in other areas.
3. Students are required to maintain an 80% pass rate in all Health Information Technology core courses and a satisfactory grade in both of the required PPEs. Failure to meet these requirements will result in the student's dismissal from the program.
4. Students are required to take courses in the order described in the model schedule provided in the catalog.
5. Students are permitted to repeat any Health Information Technology course one time. If program expectations are still not met, the student may be dismissed from the program.

ADVANCED DEGREES

Graduates completing this program are prepared to pursue a bachelor's, master's or doctorate degree in Health Information Management. Students interested in this career path should inform their academic advisor of this plan. There may be additional classes the student may wish to incorporate into his/her schedule in anticipation of educational advancement.

HEALTH INFORMATION TECHNOLOGY

Program code: AASHI
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Health and Human Services Department (810) 989-5507

Model Schedule

Prerequisites to program admission			**Credit**	**Contact Hours**
BIO 271	Human Anatomy and Physiology I		4	5
HE 102*	Medical Terminology		2	2
CIS 115	Microcomputer Applications	**CL**	4	4
OA 101**	Personal Keyboarding on Microcomputers		1	1
			11	12
1st Semester – SUMMER			**Credit**	**Contact Hours**
PN 140	Pharmacology I		1	1
			1	1
2nd Semester – FALL			**Credit**	**Contact Hours**
HIT 101	Introduction to Health Information Technology		4	4
BIO 272	Human Anatomy and Physiology II		4	5
PN 170	Pharmacology II		1.5	1.5
HIT 102	Legal Aspects of Health Information Technology	**CT**	3	3
ENG 101	English Composition I	**WR**	3	3
			15.5	16.5
3rd Semester – WINTER			**Credit**	**Contact Hours**
HIT 103	ICD-9-CM Coding		4	4
BIO 280	Pathophysiology		4	4
HIT 104	Ethical Challenges in Health Information Tech.	**CT GA**	3	3
HIT 105	CPT/HCPCS Coding		3	3
			14	14
4th Semester – FALL			**Credit**	**Contact Hours**
HIT 201	ICD-10-CM & ICD-10-PCS Coding		4	4
HIT 202	Quality Management & Regulatory Compliance	**OC**	4	4
HIT 203	Reimbursement Methodologies		3	3
HIT 204	HIT PPE		3	3
			14	14
5th Semester – WINTER			**Credit**	**Contact Hours**
HIT 206	Management for Health Information Technology	**WR**	4	4
HIT 207	Virtual/Coding PPE		4	4
PS 101	Introduction to Political Science	**GA GP**	3	3
HIT 205	Health Informatics		4	4
			15	15

Total Credit Hours/Total Contact Hours = 70.5/72.5

*Or OA 280 or OA 280A
** Or OA 110 or OA 115
Notes: Upon successful completion of the required courses, the Mathematics graduation competency will be satisfied. Refer to Health Information Technology program overview for more detailed program requirements.

HORTICULTURE − LANDSCAPE

Program Code: CERHL
CERTIFICATE
Engineering Technology Department (810) 989-5754

This curriculum is designed for the students to choose courses most meaningful to them and their immediate and long-term goals. All courses may be applied to the Landscape Design, Turf and Greenhouse Management associate degree. Completion of this certificate prepares students for jobs such as: landscaper, nursery technician, greenhouse technician, groundskeeper and garden center technician.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
	*AGR Electives		6
	**Electives		5
			15
2nd Semester			**Semester Hours**
ACCT 189	College Accounting		3
	*AGR Electives		6
	**Electives		6
			15

Total Credit Hours/Range Total Contact Hours = 30/30+

***Minimum 12 Credits from AGR:**		**Semester Hours**
AGR 103	Soil Management	3
AGR 104	Computer-Aided Drafting for Landscaping	2
AGR 105	Introduction to Horticulture	2
AGR 124	Introduction to Forestry	3
AGR 126	Garden and Landscape Maintenance	3
AGR 127	Landscape Plant Identification & Selection	2
AGR 150	Landscape Placement Training	1-6
AGR 202	Integrated Pest Management	3
AGR 206	Applied Horticulture	3
AGR 207	Greenhouse Management	2
AGR 208	Nursery Management	2
AGR 209	Turf Management	2
AGR 227	Landscape Design	3

**Electives listed on next page.

__Elective credits must be selected from following list:__

Biology Electives			
BIO 100	Principles of Biology		4
BIO 200	Introductory Botany		5
Business Electives			
BUS 150	Principles of Business	**GA**	4
BUS 155	Principles of Management		3
BUS 158***	Business Math	**CT MA**	4
BUS 180	Marketing Principles		4
BUS 181	Professional Selling	**OC**	3
BUS 221	Principles of Economics I	**CT MA**	3
General Electives			
ENG 101	English Composition I		3
SP 101	Introductory Spanish I		4
Design/Drawing Electives			
ART 106	Basic Design		3
ART 107	3−Dimensional Design		3
ART 115	Basic Landscape Drawing		3
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2

*** or MTH 102 or higher.

LANDSCAPE DESIGN,TURF AND GREENHOUSE MANAGEMENT (MANAGER TRACK)

Program Code: AASLD
ASSOCIATE DEGREE IN APPLIED ARTS AND SCIENCE
Engineering Technology Department (810) 989-5754

This program is designed for students interested in Landscape Design, Turf and Greenhouse Management − Manager Track. The student will take the core courses and choose an elective interest path most meaningful for his/her immediate and long-term goals.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
AGR 103	Soil Management		3
AGR 105	Introduction to Horticulture		2
ACCT 189	College Accounting		3
CIS 115	Microcomputer Applications	**CL**	4
	*Required Interest Electives		4
			16

2nd Semester			**Semester Hours**
AGR 206	Applied Horticulture		3
AGR 207	Greenhouse Management		2
BUS 158**	Business Math	**CT MA**	4
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GA GP**	3
			15

SPRING/SUMMER (12 weeks − see program advisor)		**Semester Hours**
AGR 150	Landscape Placement Training (minimum 1 hour required)	1 to 6 hours

SECOND YEAR − 1st Semester			**Semester Hours**
AGR 124	Introduction to Forestry		3
AGR 202	Integrated Pest Management		3
AGR 208	Nursery Management		2
BUS 150	Principles of Business	**GA**	4
ENG 102	English Composition II	**WR**	3
			15

2nd Semester			**Semester Hours**
AGR 126	Garden and Landscape Maintenance		3
AGR 209	Turf Management		2
BIO 270	Environmental Issues	**CT**	3
SPC 101	Speech Communication	**OC**	3
	*Required Interest Electives		4
			15

Range Total Credit Hours/Range Total Contact Hours = 62-67/71+

*Approved Interest Electives listed on next page.
**or MTH 102 or higher.

INTEREST ELECTIVES			**Semester Hours**
Plants/Biology Electives			
AGR 127	Landscape Plant Identification & Selection		2
BIO 100	Principles of Biology	**CT**	4
BIO 200	Introductory Botany		5
Design/Drawing Electives			
AGR 104	Computer-Aided Drafting for Landscaping		2
AGR 227	Landscape Design		3
ART 106	Basic Design		3
ART 107	3−Dimensional Design		3
ART 115	Basic Landscape Drawing		3
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer Aided Drafting		2
Business Electives			
BUS 155	Principles of Management		3
BUS 180	Marketing Principles		4
BUS 181	Professional Selling	**OC**	3
BUS 221	Principles of Economics I	**CT GA**	3
General Electives			
SP 101	Introductory Spanish I		4

MACHINE TOOL

Program Code: CERMT
CERTIFICATE
Engineering Technology Department (810) 989-5754

Designed for those who wish to upgrade their industrial skills or pursue a career in industry, the Machine Tool program can be modified as needed to satisfy the skills needed by an employer. The primary goal of this program is to give the student knowledge of modern machining, blueprint reading, measurement techniques, materials and communication skills.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
MFT 111	Machine Tools	**GA**	4
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
MTH 102*	Elementary Algebra	**MA CT**	5
ENG 101	English Composition I	**WR**	3
			16
2nd Semester			**Semester Hours**
EG 162	Advanced Drafting with AutoCAD		4
MFT 211	Beginning NC/CNC Programming	**CL**	3
MFT 214	Machine Tool Advanced		4
	**Required Electives		3
			14

Total Credit Hours/Total Contact Hours = 31/43.5

*or MTH 110 or higher.
**Required electives are from MFT, EG or WELD disciplines, or CHM 101, CHM 111 or PHY 121.

MANAGEMENT − BUSINESS

Program Code: AASMN
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Business Administration Department (810) 989-5575

This program is designed to present students with the broad theoretical and practical experiences necessary for the demanding expectations of managerial careers. Having a balanced blend of core management courses, related business courses, applicable liberal arts courses and a number of elective credits, this program meets the needs of individuals seeking entry-level management positions, and of currently employed managers seeking to enhance their effectiveness.

NOTE: Students wishing to transfer should not follow the sequence listed below. Please contact the Business Administration Department or Student Success Center for detailed transfer information specific to each college/university.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
BUS 150	Principles of Business	**GA**	4
BUS 155	Principles of Management		3
BUS 158****	Business Math	**CT MA**	4
ENG 101	English Composition I	**WR**	3
			14

2nd Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
PSY 230**	Psychology of Leadership and Supervision		4
BUS 257	Supervision Management		3
ACCT 189	College Accounting		3
			14

SECOND YEAR − 1st Semester			**Semester Hours**
BUS 221	Principles of Economics I	**CT GA**	3
BUS 258	Human Resources Management		3
ACCT 211	Principles of Accounting I		4
PS 101	Introduction to Political Science	**GA GP**	3
	*Electives		6
			19

2nd Semester			**Semester Hours**
ACCT 212	Principles of Accounting II		4
BUS 222	Principles of Economics II	**CT GA**	3
BUS 259	Management Internship		1-3
BUS 270	Applied Management Capstone	**CT OC**	3
OA 225***	Business Communications	**OC WR**	4
			15-17

Range Total Credit Hours/Range Total Contact Hours = 62-64/62-64

*Recommended electives: BUS 153, BUS 180, BUS 181, BUS 185, BUS 188, BUS 199, PSY 180, ENG 102, CIS 200, ITL 150, ITL 190, ITL 191, ITL 192, ITL 193, ITL 194, SPC 101.
**or PSY 180.
***or ENG 102. If student takes OA 225, they need 6 electives; if ENG 102, 7 electives are required.
****BUS 158 preferred or MTH 110 or higher.

MANAGEMENT, PROFESSIONAL CERTIFICATION

Program Code: CERMN
CERTIFICATE
Business Administration Department (810) 989-5575

This program provides certification of a professional level of academic achievement in the field of management. An individual achieving this certification will demonstrate a level of managerial competence commensurate with successful managerial practice. The program is designed for current managers and supervisors who wish to enhance their professional effectiveness and those aspiring to a position in management or supervision. Contact the Business Administration Department for more information. Courses directly transfer into the Business Management associate degree program.

Suggested Program Sequence

1st Semester			**Semester Hours**
BUS 150	Principles of Business	**GA**	4
BUS 155	Principles of Management		3
BUS 158*	Business Mathematics	**CT MA**	4
CIS 115	Microcomputer Applications	**CL**	4
ENG 101	English Composition	**WR**	3
			18

2nd Semester			**Semester Hours**
BUS 221	Principles of Economics I	**CT GA**	3
BUS 257	Supervision Management		3
BUS 258	Human Resources Management		3
OA 225**	Business Communications	**OC WR**	4
ACCT 189	College Accounting		3
			16

Total Credit Hours/Total Contact Hours = 34/34

*BUS 158 preferred or MTH 110 or higher.
**or ENG 102.

MARKETING

Program Code: AASMK
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Business Administration Department (810) 989-5575

Marketing is more than just a function within a company (i.e., sales, advertising). It is a business management philosophy that is customer-centric. It defines the purpose of a company as "to satisfy customer wants and needs at a profit" and impacts every part of the modern global organization.

Students completing this course of study will be able to secure employment in the field of retailing, sales, advertising, public relations and customer service. Study would be applicable to both entrepreneurs and those wishing to join the corporate environment.

NOTE: Students wishing to transfer should not follow the sequence listed below. Please contact the Business Administration Department or Student Success Center for detailed transfer information specific to each college/university.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
BUS 158*	Business Math	**MA CT**	4
BUS 150	Principles of Business	**GA**	4
ENG 101	English Composition I	**WR**	3
			15
2nd Semester			**Semester Hours**
ACCT 189	College Accounting		3
OA 225**	Business Communications	**OC WR**	4
BUS 153	Introduction to Business Law	**CT**	3
BUS 180	Marketing Principles		4
BUS 181	Professional Selling	**OC**	3
			17
SECOND YEAR − 1st Semester			**Semester Hours**
ACCT 211	Principles of Accounting I		4
BUS 155	Principles of Management		3
BUS 221	Principles of Economics I	**CT GA**	3
BUS 185	Principles of Retailing and Customer Service		3
PS 101	Introduction to Political Science	**GA GP**	3
			16
2nd Semester			**Semester Hours**
ACCT 212	Principles of Accounting II		4
BUS 271	Applied Marketing Capstone	**CT OC**	3
BUS 222	Principles of Economics II	**CT GA**	3
BUS 261***	Marketing Internship		1-3
Electives****			3
			14-16

Range Total Credit Hours/Range Total Contact Hours = 62-64/62-64

*BUS 158 preferred or MTH 110 or higher.
**or ENG 102. Students must complete a minimum of 62 credits to satisfy degree requirements.
***Permission of instructor required.
****Recommended electives: BUS 199, BUS 257, BUS 258, CIS 110, ITL 150, ITL 190, ITL 191, ITL 192, ITL 193, ITL 194 or PSY 180.

MARKETING (CERTIFICATE)

Program Code: CERMK
CERTIFICATE
Business Administration Department (810) 989-5575

Marketing is one of the major segments of our economy. Through this area, goods and services flow from producer to consumer. The Marketing certificate program is designed to be a short-term, focused program providing knowledge related to the marketing profession. Courses transfer directly into the Marketing associate degree program.

Suggested Course Sequence

1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
BUS 150	Principles of Business	**GA**	4
BUS 153	Introduction to Business Law	**CT**	3
BUS 158*	Business Math	**CT MA**	4
BUS 181	Professional Selling	**OC**	3
			17

2nd Semester			**Semester Hours**
ACCT 189	College Accounting		3
BUS 155	Principles of Management		3
BUS 180	Marketing Principles		4
CIS 115	Microcomputer Applications	**CL**	4
			14

Total Credit Hours/Total Contact Hours = 31/31

*BUS 158 preferred or MTH 110 or higher.

MECHATRONICS

Program Code: AASMR
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This program of study prepares students to work in the growing field of mechatronics. It combines technical skills from the computer, electrical/electronic and mechanical disciplines to develop well-rounded, multi-skilled technicians who can design, install, program, integrate, service and troubleshoot mechatronic components and systems.

Mechatronics has been identified as one of the ten emerging technologies that will change the world. The U.S. Department of Labor has listed mechatronics as a new and emerging green jobs growth area that also has been identified as one of the in-demand industry clusters. According to the Bureau of Labor Statistics, the job outlook for mechatronics is green and bright through 2018 with an annual salary around $50,000. According to the Center for Automotive Research, mechatronics will dominate future hiring at motor vehicle firms. The National Council on Competitiveness estimates that 100 million new jobs will be created in the 21st century at the intersection of disciplines rather than in individual disciplines. Mechatronics technicians exhibit this multi-disciplinary or multi-skilled requirement.

There is no mechatronics industry sector; rather, it is an enabling approach to technology that is increasingly applied in a number of economic sectors including: alternative/renewable energy and a variety of green jobs; biotechnology, life science and medical; electronics and applied computer equipment; telecommunications and information services; distribution, transportation and logistics; heavy and special trade construction; energy, mining and related support services; petroleum refining and chemical; transportation equipment; production support and industrial machinery; agriculture, forestry and food; and aerospace, homeland security and defense.

Suggested Program Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ELT 130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
IA 100	Electrical Power and Control Circuits I		3
IA 143	Fluid Power and Control Circuits I		3
MTH 110*	Intermediate Algebra	**CT MA**	4
			14
2nd Semester			**Semester Hours**
ELT 131	Semiconductor Devices and Circuits	**GA**	4
ELT 236	Microcontrollers: Energy Control Systems I	**OC CT CL**	4
IA 101	Introduction to Robotics/Automation		3
IA 102	Programmable Logic Controllers	**CL**	3
IA 243	Fluid Power and Control Circuits II		3
			17
SECOND YEAR − 1st Semester			**Semester Hours**
ENG 101	English Composition I	**WR**	3
IA 201	Advanced Robotics and Programmable Controls	**CL**	3
ELT 135	Digital Circuits		3
ELT 155**	Assembling a Computer		1
ELT 231	Industrial Electronics	**OC**	3
	***Technical Elective		4
			17

2nd Semester			Semester Hours
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
ENG 102	English Composition II	**WR**	3
ELT 232	Communications Circuits		3
ELT 232L	Communications Circuits Lab		1
PS 101	Introduction to Political Science	**GA GP**	3
			14

Total Credit Hours/Range Total Contact Hours = 62/93+

*or MTH 112 or higher. Transfer students should take MTH 112, MTH 113 and MTH 114. See program advisor for recommendation, or contact Engineering Technology Department at (810) 989-5754.
**or ELT 160.
***Technical electives must be selected from: AET 183, CIS 120, EG 162, ELT 150, ELT 230, IA 150. These courses contain a project that will be related to the student's individual program of study.

NOTE: ELT 130A, ELT 130B and ELT 131 together are required to satisfy GA requirement. ELT 231 and ELT 236 together are required to satisfy OC requirement.

NURSING

www.sc4.edu/nursing

Due to the dynamic nature of the health professions, changes in either the curricula or course content or both may be made at any time.

Applicants planning to pursue a career in nursing should familiarize themselves with the essential physical tasks of the nursing profession and limitations based upon criminal convictions. Please feel free to contact the Nursing Department to discuss such issues.

Nursing students are expected to regularly attend all classes. The demonstration of professional attitudes and behaviors as defined in the policies established by the course instructors is considered critical. Therefore, failure to demonstrate these critical attitudes and behaviors may result in a failing grade in the course, regardless of the degree of progress in other areas.

Students are required to achieve and maintain an 80% pass rate in their course of study and a grade of satisfactory in each clinical course. Courses related to the nursing program (including pre-nursing courses HE 101, HE 102 and HE 224) only can be taken a total of two times. Failure to meet these requirements will result in the student's potential lack of acceptance to or exclusion from the program.

Any failure or withdrawal from the Nursing program after drop and add will result in loss of tuition, and may also impact financial aid.

BACHELOR OF SCIENCE IN NURSING
BSN transfer option

Students planning to continue their education in nursing after attaining an Associate Degree in Nursing at SC4 must inform their academic advisor of this plan. Students may want to incorporate courses that are required by all BSN programs, such as microbiology. Academic advisors have current information on those universities with direct relationships with SC4.

ASSOCIATE DEGREE NURSING OVERVIEW

ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Nursing Department (810) 989−5675

The Associate Degree in Nursing (ADN) program prepares students to enter the profession of nursing. Upon successful completion of the required courses, the graduate is eligible to write a national licensure examination to become a Registered Nurse. The program is two years in length and includes liberal arts and nursing courses. However, a student may choose to complete any of the liberal arts courses prior to admission to the ADN program.

Transportation to and from the clinical facility is the sole responsibility of the student. In all nursing programs, students are required to purchase uniforms approved by the nursing department.

PRE-ADMISSION REQUIREMENTS
If you have previously attended college, you may already have a head start toward your nursing degree. See an SC4 advisor for more information.

The pre-admission requirements are:

1. Minimum selective GPA of 2.7 based on courses that apply to the ADN program (current high school students is overall 3.0 GPA based on 10th and 11th grade college prep courses).
2. Complete BIO 271 Human Anatomy/Physiology I, or equivalent, with a grade of 2.0 (“C” or better) by Jan. 15 of application year.
    - Students applying directly from high school must have completed biology and chemistry in high school with a grade of “C” or better by Jan. 15 of application year. They must also complete BIO 271 before starting the program. Official high school transcripts must be sent to the Nursing Department.
    - All biology A & P courses, HE 101 and HE 224 must be completed within five academic years of admission to the Nursing program.
3. Complete HE 101 Math Related to Drug Administration, or equivalent, with minimum of 80% by Jan. 15 of application year.
4. All pre-nursing and general education requirements must have a “C” or better if student wishes to be considered in the applicant pool.
5. Assessment tests are required if the student has not previously attended college. Arrangements for assessments can be made by calling the Achievement Center at (810) 989-5555.
6. HESI Pre-admission Test must be taken at SC4. Letter confirming receipt of application will explain procedure.

Fulfillment of these criteria does not guarantee admission to the nursing program.

Applicants planning to pursue a career in registered nursing who have a criminal record of felony or misdemeanor convictions should contact the Nursing Department to determine employment restrictions based upon these convictions.

APPLYING FOR ADMISSION

Persons seeking admission to the RN − Associate Degree Nursing (ADN) program must:

1. Submit to the SC4 Enrollment Services office:
   - A completed Application for Admission to SC4, indicating an ANTAH, Anticipated Allied Health program code as the program of study.
   - A completed Allied Health Application designating ADN program to Enrollment Services by Jan. 15 of application year.
   - Official college transcripts by Feb. 5, if you have previously attended a college other than SC4.
2. Schedule a mandatory group advising appointment with the Nursing Department at (810) 989-5675. Attending a group advising session is mandatory before application is considered.
3. Make arrangements to take the HESI pre-admission test. Students applying for admission will receive letter of receipt via email.

ACCEPTANCE PROCEDURE

1. Qualified applications will be reviewed by the Nursing Department in the winter semester for the ADN program (program starts the following fall semester in August). Notification of applicant acceptances and rejections will be mailed. Acceptance into the program is based on space, availability and entrance criteria that includes GPA, credits taken towards a nursing degree and HESI Pre-admission Test results. See www.sc4.edu/nursing for a breakdown of the criteria.
2. Accepted ADN applicants will be required to attend an ADN program orientation after admission. At the ADN program orientation session, course schedules for fall semester will be completed.
3. Upon admission and before classes begin in the fall semester, students will need to submit a completed Physical Examination Form and evidence of current CPR for the Health Care Provider certification from the American Heart Association (forms will be provided by the Nursing Department during ADN program orientation). Additional screenings are required.

ASSOCIATE DEGREE NURSING

Program Code: AASRN
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Nursing Department (810) 989-5675

Model Schedule

Prerequisites to program admission			**Credit/Contact Hours**	
BIO 271	Human Anatomy/Physiology I		4	5
HE 101	Math Related to Drug Administration	**MA**	1	1
			5	6

1st Semester − FALL		**Credit/Contact Hours**	
ADN 123	Nursing Assessment	.9	.9
ADN 123L	Nursing Assessment Lab	.9	.9
ADN 124	Pharmacology for Nurses	2	2
ADN 125	Principles of Nursing Care	4	4
ADN 125L	Principles of Nursing Care − Clinical Skills	5	15
BIO 272	Human Anatomy/Physiology II	4	5
		17.8	27.8

2nd Semester − WINTER		**Credit/Contact Hours**	
ADN 126	Nursing Care of the Adult I	2.5	2.5
ADN 126L	Nursing Care of the Adult I − Clinical Skills	2.5	7.5
ADN 127	Nursing Care of Childbearing Family	2	2
ADN 127L	Nursing Care of Childbearing Family – Clinical Skills	1.5	4.5
HE 224	Altered States of Adult Health	4	4
		12.5	20.5

3rd Semester − SPRING			**Credit/Contact Hours**	
ADN 128	Nursing Care of the Adult II		1.5	1.5
ADN 128L	Nursing Care of the Adult II – Clinical Skills		1.5	4.5
PSY 180	Introduction to Psychology	**CT**	4	4
			7	10

4th Semester − SUMMER			**Credit/Contact Hours**	
ENG 101	English Composition I	**WR**	3	3
PSY 220	Life Span Development Psychology		4	4
			7	7

5th Semester − FALL			**Credit/Contact Hours**	
ADN 225	Nursing Care of the Adult III		2	2
ADN 225L	Nursing Care of the Adult III – Clinical Skills		2.25	6.75
ADN 226	Mental Health Nursing Care		2	2
ADN 226L	Mental Health Nursing Care – Clinical Skills		2	6
HE 210	Health Care Delivery Systems		2	2
ENG 102	English Composition II	**WR**	3	3
			13.25	21.75

6th Semester − WINTER			**Credit/Contact Hours**	
ADN 227	Nursing Care of Children		2	2
ADN 227L	Nursing Care of Children − Clinical Skills		1.5	4.5
ADN 228	Nursing Leadership		2	2
ADN 228L	Nursing Leadership − Clinical Skills		2.5	7.5
ADN 236	Nursing Care of the Older Adult		1	1
PS 101	Introduction to Political Science	**GP GA**	3	3
			12	20

Total Credit Hours/Total Contact Hours=74.55/113.05

Upon successful completion of the required courses, all graduation competencies will be satisfied.

TRANSITION PROGRAM OVERVIEW: LPN AND HEALTH CARE PROVIDER TO ADN

FOR CURRENT LICENSED PRACTICAL NURSES AND LICENSED HEALTH CARE PROVIDERS
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Nursing Department (810) 989-5675

The Transition Program includes two tracks: Licensed Practical Nursing (LPN) to Associate Degree Nursing (ADN) and licensed Health Care Provider (HCP) to Associate Degree Nursing (ADN). Each track is one and a half years in length and includes liberal arts and nursing courses (see appropriate model schedules). However, a student may elect to complete any of the liberal arts courses prior to admission to the ADN program. The program is a **fast track/accelerated course of study** and is designed to expand upon previous education and experience. Students are expected to apply prior knowledge to all nursing courses. In order to be successful, it is strongly suggested that students in the program **work no more than 24 hours a week**. All testing may be proctored on SC4's main campus. Upon successful completion of the program, the graduate is eligible to write a national licensure examination to become a registered nurse.

APPLICATION/ PRE-ADMISSION REQUIREMENTS
Students applying for admission will receive letter of receipt via email.

1. Submit a completed Application for Admission to SC4 to the Enrollment Services office by Oct. 1 of the desired academic year for admission. Indicate on the application the program of study:
    - ANTAH − Anticipated Allied Health
2. Meet with an advisor in the SC4 Student Success Center regarding program prerequisites and admission to the nursing program. Schedule an appointment by calling (810) 989-5520.
3. Attend a mandatory group advising session prior to application deadline in the Nursing Department. Schedule an appointment by calling (810) 989-5675.
4. Submit a completed Allied Health Application designating Transition Program to Enrollment Services by Oct. 1 of the desired academic year of admission.
5. Register to take the HESI Pre-admission Test prior to the Oct. 1 deadline.
6. Complete, or be currently enrolled in, the following SC4 prerequisite courses prior to the Oct. 1 application deadline in order to be considered for admission:
    - HE 101 − Math Related to Drug Administration
    - ADN 103 − Nursing Process and Health Assessment
    - HE 224 − Altered States of Adult Health

    Note: These courses must be taken within five years of admission to the nursing program. A passing grade of 80% must be achieved in order to be considered for admission.
7. Achieve a minimum selective GPA of 2.7 based on courses that apply to the Associate Degree Nursing program.
8. All nursing and general education courses must be completed with a "C" or better to be considered in the applicant pool.

9. Submit college transcripts to SC4 Enrollment Services office by Oct. 1 of the desired academic year of admission from all previously attended colleges other than SC4.
10. Provide evidence of 1,040 hours of work experience as an LPN or HCP within the past five years. This must be submitted by Oct. 1.
11. Provide evidence of current unencumbered Michigan licensure as an LPN or HCP. This must be submitted by Oct. 1 of the desired academic year of admission.
12. LPNs with strong, up-to-date drug knowledge may consider taking the NLN Pharmacology competency exam to waive ADN 124. It must be taken within five years of admission to the ADN program and students must score at least 70% for credit. Schedule a testing appointment with the Achievement Center by calling (810) 989-5555.

Fulfillment of these criteria does not guarantee admission to program.

Note: Applicants planning to pursue a career in registered nursing who have a criminal record of felony or misdemeanor convictions should contact the Nursing Department to determine employment restrictions based upon these convictions.

ACCEPTANCE PROCEDURE

1. Materials from applicants meeting the pre-admission requirements will be reviewed by the Nursing Department in the fall semester of the application year. The transition program begins in the winter semester (January). Notification of applicant acceptances and rejections will be mailed. Acceptance into the program is based on space availability and entrance criteria that includes GPA, credits taken towards a nursing degree and HESI Pre-admission test results. See www.sc4.edu/nursing for a breakdown of the criteria.
2. Accepted applicants will be required to attend an ADN program orientation after admission. Course schedules for winter registration will be provided at this orientation session.
3. Upon admission and prior to entering the clinical setting, students must submit a completed Physical Examination Form, evidence of malpractice insurance, and evidence of current CPR for the Health Care Provider certification from the American Heart Association. Forms will be provided by the Nursing Department during ADN program orientation. Additional screenings are required.

TRANSITION NURSING PROGRAM: LPN TO ADN TRACK

Program Code: AASAP
LPN to ADN TRACK is an on-campus program
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Nursing Department (810) 989-5675

Model Schedule

PREREQUISITES			**Credit/Contact Hours**	
ADN 103	Nursing Process and Health Assessment		2	3
HE 101	Math Related to Drug Administration	**MA**	1	1
BIO 160***	Anatomy and Physiology for Health Care Professionals		4	5
BIO 272	Human Anatomy and Physiology II		4	5
HE 224	Altered States of Adult Health		4	4
			15	18
1st Semester − WINTER				
ADN 124**	Pharmacology for Nurses		2	2
ADN 230	Nursing Transition		4	4
			6	6
2nd Semester − SPRING			**Credit/Contact Hours**	
ADN 231	Nursing Transition and Care of the Adult I		2.5	2.5
ADN 231L	Nursing Transition and Care of the Adult I − Clinical Skills		1.5	4.5
			4	7
3rd Semester − SUMMER			**Credit/Contact Hours**	
ENG 101*	English Composition I	**WR**	3	3
PSY 180*	Introduction to Psychology	**CT**	4	4
			7	7
4th Semester − FALL			**Credit/Contact Hours**	
ADN 233	Nursing Transition and Care of the Adult II		5	5
ADN 233L	Nursing Transition and Care of the Adult II Clinical		1.5	4.5
ADN 234	Nursing Transition: Maternal − Child Nursing		3	3
ADN 234L	Nursing Transition: Maternal − Child Clinical		1.5	4.5
HE 210*	Health Care Delivery Systems		2	2
PSY 220*	Life Span Developmental Psychology		4	4
			17	23
5th Semester − WINTER			**Credit/Contact Hours**	
ADN 226	Mental Health Nursing Care		2	2
ADN 226L	Mental Health Nursing Care − Clinical Skills		2	6
ADN 235	Nursing Transition − Leadership		2	2
ADN 235L	Nursing Transition: Leadership − Clinical Skills		2	6
ADN 236	Nursing Care of the Older Adult		1	1
ENG 102*	English Composition II	**WR**	3	3
PS 101*	Introduction to Political Science	**GA GP**	3	3
			15	23

Total Credit Hours/Total Contact Hours = 64/84

*Any liberal arts course and HE 210 may be taken prior to admission to the ADN Transition Program.
**May challenge Pharmacology course. Challenge test must be taken prior to start of program.
***or BIO 271.
Upon successful completion of the required courses, all graduation competencies will be satisfied.

TRANSITION NURSING PROGRAM: HEALTH CARE PROVIDER TO ADN TRACK

Program Code: AASHP
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Nursing Department (810) 989-5675

Model Schedule

PREREQUISITES			**Credit/Contact Hours**	
HE 101	Math Related to Drug Administration	**MA**	1	1
HE 224	Altered States of Adult Health		4	4
ADN 103	Nursing Process & Health Assessment		2	3
BIO 271**	Human Anatomy/Physiology I		4	5
BIO 272**	Human Anatomy/Physiology II		4	5
			15	18
1st Semester − WINTER			**Credit/Contact Hours**	
ADN 124	Pharmacology for Nurses		2	2
ADN 200	Essentials of Nursing Care		4	4
ADN 200L	Essential of Nursing Care − Clinical Skills		4	12
			10	18
2nd Semester − SPRING			**Credit/Contact Hours**	
ADN 231	Nursing Transition & Care of the Adult I		2.5	2.5
ADN 231L	Nursing Transition & Care of the Adult I – Clinical Skills		1.5	1.5
			4	7
3rd Semester − SUMMER			**Credit/Contact Hours**	
ENG 101*	English Composition I	**WR**	3	3
PSY 180*	Introduction to Psychology	**CT**	4	4
			7	7
4th Semester − FALL			**Credit/Contact Hours**	
ADN 233	Nursing Transition & Care of the Adult II		5	5
ADN 233L	Nursing Transition & Care of the Adult II – Clinical Skills		1.5	4.5
ADN 234	Nursing Transition: Maternal − Child Nursing		3	3
ADN 234L	Nursing Transition: Maternal − Child Nursing – Clinical Skills		1.5	4.5
HE 210*	Health Care Delivery Systems		2	2
PSY 220*	Life Span Developmental Psychology		4	4
			17	23
5th Semester − WINTER			**Credit/Contact Hours**	
ADN 226	Mental Health Nursing Care		2	2
ADN 226L	Mental Health Nursing Care − Clinical Skills		2	6
ADN 235	Nursing Transition − Leadership		2	2
ADN 235L	Nursing Transition − Leadership		2	6
ADN 236	Nursing Care of the Older Adult		1	1
ENG 102*	English Composition II	**WR**	3	3
PS 101*	Introduction to Political Science	**GA GP**	3	3
			15	23

Total Credit Hours/Total Contact Hours: 68/96

*Any liberal arts course and HE 210 may be taken prior to admission to the ADN Transition Program.
**or approved Nursing Department substitution.
Upon successful completion of the required courses, all competencies will be satisfied.
NOTE: Online courses may have proctored exams.

NURSING PROGRAM, PRACTICAL ONE-YEAR OPTION OVERVIEW

CERTIFICATE, One-year Option
Nursing Department (810) 989-5675

The Practical Nursing (PN) program prepares the graduate to provide direct patient care with supervision. Upon successful completion of the required courses, the graduate is eligible to write a national licensure examination to become a licensed practical nurse (LPN). The program is one year in length. However, the student may select a part-time schedule and complete the required courses over a two-year time span.

PRE-ADMISSION REQUIREMENTS

1. High school graduate or successful completion of the G.E.D. test.
2. Achievement of overall grade point average (GPA) of 2.5 or better in high school or college-level academic work.
3. Competitive score on the HESI Pre-admission Test. See website www.sc4.edu/nursing.

Note: Fulfillment of these criteria **does not guarantee** admission to the PN program.

APPLYING FOR ADMISSION
Persons seeking admission to the LPN − Licensed Practical Nursing certificate program must:

1. Submit to the SC4 Enrollment Services office by June 1 of the year you plan to start program courses:
    - A completed Application for Admission to SC4, indicating an Anticipated Allied Health (ANTAH) program code as the intended program of study.
    - A completed Allied Health Application indicating an LPN-Licensed Practical Nursing certificate program.
    - Official high school transcripts and/or GED scores.
    - Official college transcripts, if you have previously attended a college other than SC4.
2. Schedule a mandatory group advising appointment with the Nursing Department at (810) 989-5675. Attending a group advising session is mandatory before application is considered.
3. Schedule an appointment for the SC4 HESI Pre-admission Test − see www.sc4.edu/nursing for details.

Students applying for admission will receive a letter of receipt via email.

Applicants planning to pursue a career as a practical nurse who have a criminal record of felony or misdemeanor convictions should contact the Nursing Department to determine employment restrictions based upon these convictions.

ACCEPTANCE PROCEDURE

1. Qualified applications will be reviewed by the Nursing department during the semester that precedes the start of the LPN program.

   Note: Because admission is competitive, not all candidates will be accepted.

2. Students are strongly encouraged to complete BIO 160 and HE 101 prior to acceptance to the program, ENG 101 and HE 102 are recommended. Completion of these courses will increase chances for admission. (Anatomy and Physiology course(s) and HE 101 must be completed within five years of admission to the program.)

3. Accepted LPN applicants will be required to attend an LPN program orientation after admission. At the LPN program orientation session, course schedules for upcoming semester registration will be completed.

4. Upon admission and before classes begin, students will need to submit a completed Physical Examination Form and evidence of current CPR for the Health Care Provider certification from the American Heart Association (forms will be provided by the Nursing department during LPN program orientation). Additional screenings may be required.

FUTURE ARTICULATION DEGREE OPTIONS

Students planning to continue their education toward a Registered Nursing license may do so at SC4 after they have graduated from the LPN program, received their LPN nursing license and can provide evidence of 1,040 hours of work experience within the last five years as an LPN.

NURSING PROGRAM, PRACTICAL

Program Code: CERLP
CERTIFICATE, One-year Option
Nursing Department (810) 989-5675

Model Schedule

WINTER SEMESTER			**Credit/Contact Hours**	
BIO 160*	Anatomy and Physiology for Health Care Professionals		4	5
PN 115	Dynamics of Human Relations		3	3
PN 130	Introduction Nursing Concepts		5	5
PN 120	Nutritional Concepts		1.5	1.5
PN 130L	Introduction to Nursing Concepts − Clinical Skills		4.5	13.5
HE 101	Math Related to Drug Administration	**MA**	1	1
			19	29

SPRING/SUMMER SESSION		**Credit/Contact Hours**	
PN 140	Pharmacology I	1	1
PN 150	Adult Nursing I	2	2
PN 150L	Adult Nursing I − Clinical Skills	2	6
PN 160	Maternal/Newborn Nursing	2	2
PN 160L	Maternal/Newborn Nursing − Clinical Skills	0.75	2.25
PN 165	Child−Adolescent Nursing	2	2
PN 165L	Child−Adolescent Nursing − Clinical Skills	0.75	2.25
		10.5	17.5

FALL SEMESTER		**Credit/Contact Hours**	
PN 170	Pharmacology II	1.5	1.5
PN 185	Contemporary Practical Nursing	2	2
PN 190	Adult Nursing II	5.5	5.5
PN 190L	Adult Nursing II – Clinical Skills	5	15
		14	24

Total Credit/Contact Hours = 43.5/70.5

*BIO 271 and BIO 272 together are acceptable substitutes for BIO 160.

NURSING PROGRAM, PRACTICAL TWO-YEAR OPTION OVERVIEW

Certificate, Two-year Option
Nursing Department (810) 989-5675

The Practical Nursing program prepares the graduate to provide direct patient care with supervision. Upon successful completion of the required courses, the graduate is eligible to write a national licensure examination to become a licensed practical nurse (LPN).

PRE-ADMISSION REQUIREMENTS (LPN)

1. High school graduate or successful completion of the G.E.D. test.
2. Achievement of overall grade point average (GPA) of 2.5 or better in high school or college-level academic work.
3. Competitive score on the HESI Pre-admission Test. See www.sc4.edu/nursing for details.

Note: Fulfillment of these criteria **does not guarantee** admission to the LPN Program.

APPLYING FOR ADMISSION

Persons seeking admission to the LPN − Licensed Practical Nursing certificate program must:

1. Submit to the SC4 Enrollment services office by June 1 of the year you plan to start program courses:
    - A completed Application for Admission to SC4, indicating an Anticipated Allied Health (ANTAH) program code as the program of study.
    - A completed Allied Health Application indicating an LPN-Licensed Practical Nursing Certificate Program.
    - Official high school transcripts and/or GED scores.
    - Official college transcripts, if you have previously attended a college other than SC4.
2. Schedule a mandatory group advising appointment with the Nursing Department at (810) 989-5675. Attending a group advising session is mandatory before application is considered
3. Schedule an appointment for the SC4 HESI Pre-admission Test − see www.sc4.edu/nursing for details.

Students applying for admission will receive letter of receipt via email.

Applicants planning to pursue a career as a practical nurse who have a criminal record of felony or misdemeanor convictions should contact the Nursing Department to determine employment restrictions based upon these convictions.

ACCEPTANCE PROCEDURE

1. Qualified applications will be reviewed by the Nursing Department during the semester that precedes the start of the LPN program.

   Note: Because admission is competitive, not all candidates will be accepted.

2. Students are strongly encouraged to complete BIO 160 and HE 101 prior to acceptance to the program. ENG 101 and HE 102 are recommended. Completion of these courses will increase chances for admission. (Anatomy and Physiology course(s) and HE 101 must be completed within five years of admission to the program.)

3. Accepted LPN applicants will be required to attend an LPN program orientation after admission. At the LPN program orientation session, course schedules for upcoming semester registration will be completed.

4. Upon admission and before classes begin, students will need to submit a completed Physical Examination Form and evidence of current CPR for the Health Care Provider from the American Heart Association (forms will be provided by the Nursing department during LPN program orientation). Additional screenings may be required.

5. Upon admission to the LPN program and successful completion of the first fall and winter semester, the two-year student who started in January may elect to complete all remaining courses within one year.

FUTURE ARTICULATION DEGREE OPTIONS

Students planning to continue their education toward a Registered Nursing license may do so at SC4 after they have graduated from the LPN program, received their LPN nursing license, and can provide evidence of 1,040 hours of work experience within the last five years as an LPN.

NURSING PROGRAM, PRACTICAL

Program Code: CERL2
CERTIFICATE, Two-year Option
Nursing Department (810) 989-5675

Model Schedule

FALL SEMESTER − YEAR ONE			**Credit**	**Contact Hours**
BIO 160*	Anatomy and Physiology for Health Care Professionals		4	5
PN 115	Dynamics of Human Relations		3	3
HE 101	Math Related to Drug Administration	**MA**	1	1
			8	9

WINTER SEMESTER		**Credit**	**Contact Hours**
PN 120	Nutritional Concepts	1.5	1.5
PN 130	Introduction to Nursing Concepts	5	5
PN 130L	Introduction to Nursing Concepts − Clinical Skills	4.5	13.5
		11	20

SPRING/SUMMER SESSION		**Credit**	**Contact Hours**
PN 140	Pharmacology I	1	1
PN 160	Maternal/Newborn Nursing	2	2
PN 160L	Maternal/Newborn Nursing − Clinical Skills	0.75	2.25
		3.75	5.25

FALL SEMESTER − YEAR TWO		**Credit**	**Contact Hours**
PN 170	Pharmacology II	1.5	1.5
		1.5	1.5

WINTER SEMESTER **Credit/Contact Hours**
No required classes

SPRING/SUMMER SESSION		**Credit**	**Contact Hours**
PN 150	Adult Nursing I	2	2
PN 150L	Adult Nursing I − Clinical Skills	2	6
PN 165	Child−Adolescent Nursing	2	2
PN 165L	Child−Adolescent Nursing − Clinical Skills	0.75	2.25
		6.75	12.25

FALL SEMESTER		**Credit**	**Contact Hours**
PN 185	Contemporary Practical Nursing	2	2
PN 190	Adult Nursing II	5.5	5.5
PN 190L	Adult Nursing II – Clinical Skills	5	15
		12.5	22.5

Total Credit Hours/Total Contact Hours = 43.5/70.5

*BIO 271 and 272 together are acceptable substitutions for BIO 160.

OFFICE ADMINISTRATION – ADMINISTRATIVE EXECUTIVE ASSISTANT

Program Code: AASEX
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

The Administrative Executive Assistant associate degree program prepares students for careers as administrative assistants and/or executive secretaries. Employment opportunities are found in every industry, including manufacturing, construction, wholesale and retail trade, banking, insurance, real estate, education, government and health care facilities. This curriculum provides skills in business communications, interpersonal relations, computer keyboarding and word processing, accounting principles, electronic spreadsheets and file management, office procedures, transcription and on-the-job training. Successful graduates have readily found positions in business and often progress to high-level positions.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
OA 115*	Intermediate Keyboarding and Document Formatting	**CL**	4
OA 130	Time and Project Management for Students		1
OA 135	Automated Office Principles and Practices		4
BUS 158**	Business Math	**CT MA**	4
ENG 101	English Composition I	**WR**	3
			16

2nd Semester			**Semester Hours**
OA 157	Word Processing and Spreadsheets	**CL**	4
OA 161	Office Technology	**CT OC**	4
OA 225	Business Communications	**OC WR**	4
OA 260	Machine Transcription for Word Processing		3
			15

SECOND YEAR – 1st Semester			**Semester Hours**
OA 235	Electronic Office Administrative Procedures		3
OA 262	Records Management	**CT**	4
ACCT 189	College Accounting		3
OA 200A***	Cooperative Educational Experience		3
OA	Elective		4
			17

2nd Semester			**Semester Hours**
OA 257	Advanced Applications and Integration	**CL**	4
CIS 200	Electronic Spreadsheets	**C**L	4
PS 101	Introduction to Political Science	**GA GP**	3
OA 200B***	Cooperative Educational Experience		3
			14

Total Credit Hours/Total Contact Hours = 62/62

*OA 110 Beginning Keyboarding or equivalent is a prerequisite.
**Or MTH 102 or higher.
***Can also be taken in spring session. An application process and permission of coordinator is required; inquire in Room 200, A. J. Theisen Building for process and due dates.

NOTES: Upon successful completion of the required courses, all graduation competencies will be satisfied. Completion of entire Office Administration program constitutes one GA competency. Students pursuing dual Office Administration degrees must complete OA 200C in the specialty area of their second degree.

OFFICE ADMINISTRATION – ADMINISTRATIVE LEGAL ASSISTANT

Program Code: AASLE
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

The Administrative Legal Assistant associate degree program prepares students to hold highly skilled and specialized positions as legal assistants. Positions are available in offices of private practicing attorneys, judges, prosecuting attorneys, and legal organizations such as Friend of the Court and Legal Aid, governmental administrative agencies and corporations.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
OA 115*	Intermediate Keyboarding and Document Formatting	**CL**	4
OA 130	Time and Project Management for Students		1
OA 135	Automated Office Principles and Practices		4
OA 202	Criminal Law		3
ENG 101	English Composition I	**WR**	3
			15
2nd Semester			**Semester Hours**
OA 157	Word Processing and Spreadsheets	**CL**	4
OA 161	Office Technology	**CT OC**	4
OA 225	Business Communications	**OC WR**	4
OA 270	Legal Transcription		3
			15
SECOND YEAR – 1st Semester			**Semester Hours**
OA 262	Records Management for the Automated Office	**CT**	4
OA 275	Legal Office Administrative Procedures		3
ACCT189	College Accounting		3
BUS 153	Business Law	**CT**	3
PS 101	Introduction to Political Science	**GA GP**	3
			16
2nd Semester			**Semester Hours**
OA 257	Advanced Applications and Integration	**CL**	4
OA/CIS	Elective		3
OA 200A**	Cooperative Educational Experience		3
OA 200B**	Cooperative Educational Experience		3
BUS 158***	Business Math	**CT MA**	4
			17

Total Credit Hours/Total Contact Hours = 63/63

*OA 110 Beginning Keyboarding or equivalent is a prerequisite.
**Can also be taken in spring session. An application process and permission of coordinator is required; inquire in Room 200, A.J. Theisen Building for process and due dates.
***Or MTH 102 or higher.
NOTES: Upon successful completion of the required courses, all graduation competencies will be satisfied. Completion of entire Office Administration program constitutes one GA competency. Students pursuing dual Office Administration degrees must complete OA 200C in the specialty area of their second degree.

OFFICE ADMINISTRATION – ADMINISTRATIVE MEDICAL ASSISTANT

Program Code: AASMA
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

The medical office is an ever-changing and growing field. This program leads to positions in doctors' and dentists' offices, hospital records and administrative offices, clinics, nursing homes, insurance offices, pharmaceutical firms and many allied areas including health organizations. Successful students will obtain skills in keyboarding, appointment scheduling, medical billing, records management, medical transcription, public relations and communications skills leading to positions as front office medical assistants, medical records technicians, medical transcriptionists and medical billers, to name a few.

Suggested Course Sequence

FIRST YEAR - 1st Semester			**Semester Hours**
OA 115*	Intermediate Keyboarding and Document Formatting	**CL**	4
OA 130	Time and Project Management for Students		1
OA 135	Automated Office Principles and Practices		4
BIO 160**	Anatomy and Physiology for the Health Care Professional		4
ENG 101	English Composition I	**WR**	3
			16
2nd Semester			**Semester Hours**
OA 157	Word Processing and Spreadsheets	**CL**	4
OA 161	Office Technology	**CT OC**	4
OA 280	Medical Terminology and Transcription		4
OA 282	Pharmacology for Medical Assistants		2
PS 101	Introduction to Political Science	**GA GP**	3
			17
SECOND YEAR - 1st Semester			**Semester Hours**
OA 225	Business Communications	**OC WR**	4
OA 262	Records Management for the Automated Office	**CT**	4
OA 285	Medical Office Administrative Procedures		4
OA 289	Medical Billing and Coding		4
			16
2nd Semester			**Semester Hours**
OA 200A***	Cooperative Educational Experience		3
OA 200B***	Cooperative Educational Experience		3
OA 257	Advanced Applications and Integration	**CL**	4
BUS 158****	Business Math	**CT MA**	4
			14

Total Credit Hours/Total Contact Hours = 63/63

*OA 110 Beginning Keyboarding or equivalent is a prerequisite.
**Students have the option of taking BIO 271 and BIO 272 in place of BIO 160.
***Can also be taken in spring session. An application process and permission of coordinator is required; inquire in Room 200, A.J. Theisen Building for process and due dates.
****Or MTH 102 or higher.
NOTES: Upon successful completion of the required courses, all graduation competencies will be satisfied. Completion of entire Office Administration program constitutes one GA competency. Students pursuing dual Office Administration degrees must complete OA 200C in the specialty area of their second degree.

OFFICE ADMINISTRATION – MEDICAL CLINICAL ASSISTANT

Program Code: AASMC
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Computer and Office Technology Department (810) 989-5628

The position of the Medical Clinical Assistant is both challenging and rewarding as it assists physicians in examining and treating patients. Positions can be found in a variety of doctors' and dentists' offices, hospitals, clinics, medical laboratories, pharmaceutical firms, nursing homes and other healthcare facilities. Duties may include taking vital signs, preparing patients, documenting patient history, assisting in exams, collecting specimens, giving injections and sterilizing supplies and equipment, as well as a number of basic clerical duties necessary to have an office run effectively and efficiently.

Proof of Hepatitis B vaccine and/or positive titer is a prerequisite to the following courses: OA 287, OA 288, OA 200A & B. Please see an Office Administration department advisor for details.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
OA 115*	Intermediate Keyboarding and Document Formatting	**CL**	4
OA 130	Time and Project Management for Students		1
OA 135	Automated Office Principles and Practices		4
BIO 160**	Anatomy and Physiology for the Health Care Professional		4
ENG 101	English Composition I	**WR**	3
			16

2nd Semester			**Semester Hours**
OA 161	Office Technology	**CT OC**	4
OA 280A	Medical Terminology		2
OA 282	Pharmacology for Medical Assistants		2
PE 143	Emergency Medical Care		3
PSY 180	Introduction to Psychology	**CT**	4
			15

SECOND YEAR – 1st Semester			**Semester Hours**
OA 225	Business Communications	**OC WR**	4
OA 262	Records Management for the Automated Office	**CT**	4
OA 285	Medical Office Administrative Procedures		4
OA 287	Beginning Medical Clinical Techniques		3
OA 200A***	Cooperative Educational Experience		3
			18

2nd Semester			**Semester Hours**
OA 288	Advanced Medical Clinical Techniques		3
BUS 158****	Business Math	**CT MA**	4
PS 101	Introduction to Political Science	**GA GP**	3
OA 200B***	Co-Operative Educational Experience		3
			13

Total Credit Hours/Total Contact Hours = 62/62

*OA 110 Beginning Keyboarding or equivalent is a prerequisite.
**Students have option of taking BIO 271 and BIO 272 to replace BIO 160.
***Can also be taken in spring semester. An application process and permission of coordinator is required; inquire in Room 200, A.J. Theisen Building for process and due dates.
****Or MTH 102 or higher.

NOTES: Upon successful completion of the required courses, all graduation competencies will be satisfied. Completion of entire Office Administration program constitutes one GA competency. Students pursuing dual Office Administration degrees must complete OA 200C in the specialty area of their second degree.

OFFICE ADMINISTRATION – CLERICAL SPECIALIST

Program Code: CERCS
CERTIFICATE
Computer and Office Technology Department (810) 989-5628

The Clerical Specialist certificate program offers a foundation of basic office courses preparing students for employment as receptionists, file clerks and general office clerks for virtually every kind of industry. This certificate program leads to a two-year associate degree by continuing in a specialization (executive, medical or legal) for a second year. Elective choices may be used for this transition.

Suggested Course Sequence

FIRST YEAR – 1st Semester			**Semester Hours**
OA 115*	Intermediate Keyboarding and Document Formatting	**CL**	4
OA 130	Time and Project Management for Students		1
OA 135	Automated Office Principles and Practices		4
OA 161	Office Technology	**CT OC**	4
ENG 101	English Composition I		3
			16
2nd Semester			**Semester Hours**
OA 157	Word Processing and Spreadsheets	**CL**	4
OA 225	Business Communications	**OC WR**	4
OA 262	Records Management for the Automated Office	**CT**	4
OA**	OA Elective or other options noted below		4
			16

Total Credit Hours/Total Contact Hours = 32/32

* OA 110 Beginning Keyboarding or equivalent is a prerequisite.
**Students may elect to take any OA course or BUS 158 Business Math or ACCT 189 College Accounting.
NOTE: Taking OA courses as electives can build toward an associate's degree in a specialized area.

RADIO FREQUENCY IDENTIFICATION TECHNOLOGY

Program Code: CERRF
CERTIFICATE
Engineering Technology Department (810) 989-5754

The goal of the Radio Frequency Identification Technology (RFID) certificate program is to prepare students for employment in career fields related to radio frequency identification technology. The lab will provide students with hands-on warehouse and storage/retrieval experience working with software, tags, readers, antennas and peripheral equipment. Students will learn to set up an RFID system, test and troubleshoot the system components, and modify the system. Students will also be able to communicate the business value of an RFID implementation.

This workforce solution was funded by a grant awarded under the President's Community-Based Job Training Grants as implemented by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

Suggested Course Sequence

1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
ELT 130A	Fundamentals of Direct Current Electronics		2
ELT 130B	Fundamentals of Alternating Current Electronics		2
RFID 180	Radio Frequency ID Fundamentals		3
RFID 181	TagNet Middleware		3
			14
2nd Semester			**Semester Hours**
CIS 120	Introduction to Networking	**CL**	4
ELT 236	Microcontrollers: Energy Control Systems I	**CL**	4
RFID 182	Technology Use in the Supply Chain		3
RFID 183	RFID Standards and Certification		3
RFID 150	RFID Internship		2
			16

Total Credit Hours/Total Contact Hours = 30/38

RADIOLOGIC TECHNOLOGY OVERVIEW

ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Health and Human Services Department (810) 989-5675

This associate degree program prepares the student to become a radiologic technologist by combining imaging technology with patient care skills to create quality radiography images. This program has a 24-month, competency-based curriculum that includes practical experiences in hospitals and imaging centers. Upon completion of the program the student will receive an associate degree in applied arts and science in radiologic technology and is eligible to take the national registry exam administered by the American Registry of Radiologic Technologists (ARRT). The program begins in the summer session and requires a full-time commitment including course and clinical days. Hours for clinical days will vary with some afternoon and weekend rotations. Travel to clinical sites is required. Transportation to and from the clinical facility is the sole responsibility of the student.

For more information visit www.sc4.edu/radiologictechnology.

PRE-ADMISSION REQUIREMENTS

- Overall college GPA of 2.8.
- All prerequisites and general education requirements must have been completed with a "C" or better if student wishes to be considered in the applicant pool.
- Assessment tests are required if the student has not previously attended college. Arrangements for assessments can be made by calling the Achievement Center at (810) 989-5555.

Fulfillment of these criteria does not guarantee admission to the radiologic technology program.

Applicants planning to pursue a career in radiography who have a criminal record of felony or misdemeanor convictions should contact the American Registry of Radiologic Technologists (ARRT) to determine employment restrictions based upon convictions. Note: Conviction or charges may preclude eligibility to take the ARRT examination once the program is completed
(visit www.arrt.org or (651) 687-0048 for clarification).

APPLYING FOR ADMISSION

Persons seeking admission to the radiologic technology program must:

- Submit to the SC4 Enrollment Services office:
    - A completed Application for Admission to SC4, indicating Anticipated Allied Health (ANTAH) as the program of study
    - An Allied Health Application, indicating Radiologic Technology (AASRD) as the intended program of study
    - Official college transcripts no later than March 15 if you have previously attended a college or university other than SC4.
- Submit to Radiologic Technology program director:
    - A completed Radiologic Program Application by Feb. 15 of application year.
- Make arrangements to take the HESI admission assessment test by Feb. 15 deadline.

ACCEPTANCE PROCEDURE

Qualified applications will be reviewed by the radiologic technology director in the winter semester (program starts in June). Notification of applicant finalists, acceptances and rejections will be mailed. Acceptance into the program is

competitive. Ranking criteria includes but is not limited to GPA, HESI results, recommended courses and health care experience. A panel will interview final candidates.

Upon admission and before classes begin in summer session, students will need to submit a completed Physical Examination Form, 10-panel drug screen and evidence of current CPR for the Health Care Provider certification from the American Heart Association (forms will be provided at orientation). Additional health screenings are required.

RADIOLOGIC TECHNOLOGY

Program Code: AASRD
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Health and Human Services Department (810) 989-5675

Prerequisites to program admission			**Credit**	**Contact Hours**
BIO 271*	Human Anatomy and Physiology I		4	5
MTH 102	Elementary Algebra	**MA CT**	5	5
ENG 101	English Composition I	**WR**	3	3
HE 102**	Medical Terminology		2	2
			14	15

1st Semester – SUMMER I		**Credit**	**Contact Hours**
RAD 101	Introduction to Radiologic Technology	3	3
RAD 110	Radiographic Positioning I	2.25	2.25
		5.25	5.25

2nd Semester – FALL I		**Credit**	**Contact Hours**
RAD 120	Radiographic Imaging I	2.5	2.5
RAD 102	Patient Care	2	2
RAD 111	Radiographic Positioning II/Lab	5	6
RAD 130L	Radiographic Clinical Education I	4	16
		13.5	26.5

3rd Semester – WINTER I		**Credit**	**Contact Hours**
ENG 102	English Composition II	3	3
RAD 121	Radiographic Imaging II	2.5	2.5
RAD 112	Radiographic Positioning III/Lab	3.5	4
RAD 131L	Radiographic Clinical Education II	4	16
		13	25.5

4th Semester – SPRING I		**Credit**	**Contact Hours**
RAD 122	Radiographic Imaging III	1.5	1.5
RAD 113	Radiographic Positioning IV/Lab	1	1.5
RAD 132L	Radiographic Clinical Education III	1.5	6
		4	9

5th Semester – SUMMER II		**Credit**	**Contact Hours**
RAD 230L	Radiographic Clinical Education IV	3.75	15
		3.75	15

6th Semester – FALL II			**Credit**	**Contact Hours**
PS 101	Introduction to Political Science	**GA GP**	3	3
RAD 220	Radiographic Imaging IV		3	3
RAD 210	Radiographic Positioning V/Lab		5	6
RAD 231L	Radiographic Clinical Education V		6	24
			17	36

7th Semester – WINTER II		**Credit**	**Contact Hours**
RAD 221	Radiographic Imaging V	3	3
RAD 201	Radiographic Anatomy and Physiology	4	4
RAD 232L	Radiographic Clinical Education VI	6	24
		13	31

8th Semester – SPRING II		**Credit**	**Contact Hours**
RAD 222	Radiation Biology	1.5	1.5
RAD 240	Radiologic Seminar	2.25	2.25
RAD 233L	Radiographic Clinical Education VII	2.25	9
		6	12.75

Total Credit Hours/Total Contact Hours = 89.5 / 176

*or BIO 160 and BIO 272
**Prerequisites need to be completed at the time of the application deadline (Feb. 15).
NOTE: It is strongly recommended that ENG 102 and PS 101 be taken before the start of the radiography program (summer session). A student planning to transfer to another college in the future should check with the college about RAD 201 transferring. Students may need to take BIO 272 when transferring. Upon successful completion of the required courses, all graduation competencies will be satisfied.

ROBOTICS/AUTOMATION TECHNOLOGY

Program Code: AASIA
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This program of study will prepare students to work in the rapidly expanding field of robotics and automation. It incorporates technical skills from the electrical, mechanical, computer and manufacturing disciplines. Robotics and automation in industry is providing jobs for technically trained people who can build, program, integrate, service and maintain robotic/automated equipment.

Suggested Program Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
ELT 130A	Fundamentals of Direct Current Electronics	**GA**	2
ELT 130B	Fundamentals of Alternating Current Electronics	**GA**	2
IA 100	Electrical Power & Control Circuits I		3
IA 143	Fluid Power & Control Circuits I		3
MTH 110*	Intermediate Algebra	**CT MA**	4
			14
2nd Semester			**Semester Hours**
ELT 131	Semiconductor Devices and Circuits	**GA**	4
ELT 236	Microcontrollers: Energy Control Systems I	**OC CT CL**	4
IA 101	Introduction to Robotics/Automation		3
IA 102	Programmable Logic Controllers	**CL**	3
IA 243	Fluid Power & Control Circuits II		3
			17
SECOND YEAR − 1st Semester			**Semester Hours**
ELT 231	Industrial Electronics	**OC**	3
ENG 101	English Composition I	**WR**	3
IA 201	Advanced Robotics & Programmable Controls	**CL**	3
MFT 111	Machine Tools	**GA**	4
WELD 110A	Basic Oxyacetylene Welding, Cutting & Brazing		1
WELD 110B	Basic Shielded Metal Arc Welding I		1
WELD 110C	Gas Metal Arc/Gas Tungsten Arc Welding		1
			16
2nd Semester			**Semester Hours**
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
ENG 102	English Composition II	**WR**	3
MFT 211	Beginning NC/CNC Programming		3
PS 101	Introduction to Political Science	**GA GP**	3
	**Technical Elective		2-3
			15-16

Range Total Credit Hours/Range Total Contact Hours = 62-63/97-98

*or MTH 112 or higher. Transfer students should take MTH 112, MTH 113 & MTH 114.
**Technical Electives: IA 150, Industrial Automation Co-op recommended, or AET 183, CIS 120, EG 162, ELT 105, ELT 135, ELT 232.
NOTE: ELT 130A, ELT 130B and ELT 131 together are required to satisfy one GA graduation competency requirement. Both ELT 231 and ELT 236 are required to satisfy the OC graduation competency requirement.

TECHNOLOGY, APPLIED STUDIES

Program Code: AASST
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

This program is designed for those individuals who have technical work experience, and for persons who have completed a trade apprenticeship. Work experience may be done concurrently or after courses are taken. Experiential and apprenticeship credit may be awarded. This degree is intended for those who desire a broader knowledge of manufacturing (e.g., CIM, quality, processes). This degree is not intended for those wishing to transfer to a four-year engineering technology program.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
MTH 112**	Intermediate Algebra and Plane Trigonometry	**MA CT**	5
ENG 101	English Composition I	**WR**	3
QA 117	Statistical Process Control I	**OC**	3
	*Technical Emphasis Elective		3
			14
2nd Semester			**Semester Hours**
ENG 102	English Composition II	**WR**	3
	*Technical Emphasis Elective		3
	***Humanities Elective		3
	****Science Elective		4
	Elective (from Critical Thinking list)	**CT**	4
			17
SECOND YEAR − 1st Semester			**Semester Hours**
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
	*Technical Emphasis Elective		3
	*****Technical Elective		3
	Technical Work Experience or Co-op Course (IA 150)		3
	Elective (from Global Awareness list)	**GA**	3
			16
2nd Semester			**Semester Hours**
PS 101	Introduction to Political Science	**GA GP**	3
	*Technical Emphasis Electives		3
	*****Technical Elective		3
	Elective (from Computer Literacy list)	**CL**	3
	Technical Work Experience or Co-op Course (IA 150)		3
			15

Total Credit Hours/Range Total Contact Hours = 62/64+

*Technical Emphasis (major area of study−12 credits minimum). Courses must be chosen from only one of the following disciplines: AD, EG, ELT, IA, ITL, MFT, QA, RFID, WELD.
**Students have the option of taking MTH 110 and MTH 111 as a replacement for MTH 112.
***Humanities Elective − suggested: Language (Conversational) German/Spanish.
****Science Elective − suggested: PHY 121 or PHS 101 or CHM 101 or PHY 130.
*****Technical elective – any course(s) from the disciplines listed above or a technical elective approved by the program advisor or the Department Chair, Engineering Technology. A minimum of 6 credits are required from this group.
NOTE: In addition to meeting graduation competency requirements, students must complete a minimum of 62 credit hours.

TECHNOLOGY, APPLIED STUDIES (CERTIFICATE)

Program Code: CERST
CERTIFICATE
Engineering Technology Department (810) 989-5754

This program is designed to give the student a broad look at several fields of technology before selecting a specific major. This program provides the student with the basic occupational skills necessary to obtain employment. Specifically, upon successful completion of this program the student will be in an advantageous position to pass the pre-apprenticeship and/or pre-employment examinations required by many trade unions and companies.

Suggested Course Sequence

1st Semester			**Semester Hours**
MFT 110A	Pre-Apprenticeship Skills Measurements & Calculations		1
MFT 110B	Pre-Apprenticeship Skills – Graphing & Problem Solving		1
MFT 110C	Pre-Apprenticeship Skills – Areas and Volumes		1
MFT 110D	Pre-Apprenticeship Skills – Spatial Skills		1
ELT 105	Fundamentals of Residential Wiring		3
CIS 115	Microcomputer Applications	**CL**	4
WELD 110A	Basic Oxyacetylene Welding, Cutting & Brazing		1
WELD 110B	Shielded Metal Arc Weld I		1
WELD 110C	Gas Metal Arc & Gas Tungsten Arc Welding		1
			14

2nd Semester			**Semester Hours**
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
IA 100	Electrical Power & Control Circuits I		3
IA 143	Fluid Power & Control Circuits I		3
ELT 130A	Fundamentals of Direct Current Electronics		2
ELT 130B	Fundamentals of Alternating Current Electronics		2
MFT 111	Machine Tools	**GA**	4
			18

Total Credit Hours/Total Contact Hours = 32/50

THERAPEUTIC MASSAGE

Program Code: AASTM
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Health and Human Services Department (810) 989-5675

The Therapeutic Massage program is a cooperative effort between St. Clair County Community College (SC4) and Lakewood School of Therapeutic Massage (Lakewood). The program combines occupational-specific courses at Lakewood and general education courses with the required competencies for graduation from SC4. Students must complete the graduation requirements at Lakewood and successfully complete an additional 31 credits. A minimum of 15 credits must be completed at SC4.

NOTE: It is also highly recommended that graduates of this program also complete the national certification examination offered by the National Certification Board for Therapeutic Massage and Bodywork.

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
BIO 271	Human Anatomy/Physiology I		4
CIS 115	Microcomputer Applications	**CL**	4
ENG 101	English Composition I	**WR**	3
PS 101	Introduction to Political Science	**GA GP**	3
SOC101	Principles of Sociology	**GA**	3
			17

FIRST YEAR − 2nd Semester			**Semester Hours**
BIO 272	Human Anatomy/Physiology II		4
BUS 158*	Business Math	**CT MA**	4
OA 225**	Business Communication	**OC WR**	4
PSY 180	Introduction to Psychology	**CT**	4
			16

***Transfer of 32 credits from Lakewood School of Therapeutic Massage is available through a formal articulation agreement with St. Clair County Community College. 32

Total Credit Hours/Total Contact Hours = 65/67

*or MTH 110 or higher.
**or ENG 102 and SPC 101.
***Articulated credit is awarded to students who have graduated from Lakewood. Students MUST have an official transcript mailed to the Registrar. Credit awarded is only applicable to the Therapeutic Massage associate degree program at SC4 and will be added after the student has completed the program requirements.

TRANSPORTATION AND LOGISTICS TECHNOLOGY

Program Code: CERTL
CERTIFICATE
Engineering Technology Department (810) 989-5754

The Transportation and Logistics Technology program is intended for those who wish to develop a working knowledge of the freight transportation industry. This includes supply chain management, domestic and international freight operations, import and export procedures,and documents and border security. Work experience and/or internship is also included.

Completion of this certificate is helpful for entry-level positions in the following fields: transportation management, U.S. Customs, logistics management, freight operations and supply chain operations.

This workforce solution was funded by a grant awarded under the President's Community-Based Job Training Grants as implemented by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

Suggested Course Sequence

1st Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
ENG 101	English Composition I	**WR**	3
ITL 190	Introduction to Transportation and Logistics		3
MTH 110	Intermediate Algebra	**MA CT**	4
RFID 180	Radio Frequency ID Fundamentals		3
			17

2nd Semester		**Semester Hours**
ITL 191	Domestic and International Freight Operations	3
ITL 192	Import Procedures and Documents	3
ITL 193	Transportation and Border Security	3
ITL 194	Supply Chain Management	3
ITL 150	Transportation and Logistics Internship	1
		13

Total Credit Hours/Total Contact Hours = 30/31

WELDING AND CUTTING TECHNOLOGY

Program Code: AASWC
ASSOCIATE IN APPLIED ARTS AND SCIENCE DEGREE
Engineering Technology Department (810) 989-5754

Welding has become an almost universal process in manufacturing, construction, agriculture and various service industries. It also has many personal uses in terms of home and workshop projects as well as applications in the field of art.

This program will provide the student with a technical background in the welding field in addition to entry-level (or above) employment skills in the following: Oxyacetylene Welding, Brazing and Cutting (OAW), Electric Arc Welding (SMAW), TIG welding (GTAW) and MIG welding (GMAW).

Suggested Course Sequence

FIRST YEAR − 1st Semester			**Semester Hours**
EG 110	Introduction to Drafting		2
EG 111	Fundamentals of Computer-Aided Drafting		2
ENG 101	English Composition I	**WR**	3
IA 101	Introduction to Robotics/Automation		3
WELD 110A	Basic Oxyacetylene Welding, Cutting & Brazing		1
WELD 110B	Basic Shielded Metal Arc Welding I		1
WELD 110C	Gas Metal Arc/Gas Tungsten Arc Welding		1
			13
2nd Semester			**Semester Hours**
CIS 115	Microcomputer Applications	**CL**	4
MFT 111	Machine Tool	**GA**	4
MTH 110*	Intermediate Algebra	**CT MA**	4
WELD 114	Print Reading and Fabrication Design		3
WELD**	Electives (from approved list)		3
			17.5
SECOND YEAR − 1st Semester			**Semester Hours**
ENG 102	English Composition II	**WR**	3
IA 143	Fluid Power & Control Circuits I		3
MTH 111*	Plane Trigonometry	**CT MA**	2
QA 117	Statistical Process Control I	**OC**	3
WELD**	Electives (from approved list)		6
			17
2nd Semester			**Semester Hours**
MFT 211	Beginning NC/CNC Programming	**CL**	3
PS 101	Introduction to Political Science	**GA GP**	3
WELD 219	Fabrication		3
WELD**	Electives (from approved list)		6
			15

Total Credit Hours/Range Total Contact Hours = 63/80+

*or MTH 112 or higher. If this option is chosen, student must select another course from the Critical Thinking List to satisfy graduation competencies.

**Student is to choose WELD electives from list on next page. See Welding instructor for help with course sequencing.

NOTE: All WELD courses are taught on an individualized, self-paced, open lab basis with flexible class times, available both day and evenings.

Approved Welding Electives		Semester Hours
WELD 210	Shielded Metal Arc Welding, Advanced	3
WELD 211	M.I.G. Welding, Advanced	2
WELD 212	M.I.G. Pipe Welding	4
WELD 213	M.I.G. Pipe Welding, Advanced	3
WELD 214	T.I.G. Welding, Advanced	2
WELD 215	T.I.G. Pipe Welding	4
WELD 216	T.I.G. Pipe Welding, Advanced	3
WELD 220	S.M.A.W. Pipe Welding	4
WELD 221	S.M.A.W. Pipe Welding, Advanced	3

WELDING AND CUTTING TECHNOLOGY (CERTIFICATE)

Program Code: CERWC
CERTIFICATE
Engineering Technology Department (810) 989-5754

Welding has become an almost universal process in manufacturing, construction, agriculture and various service industries. It also has many personal uses in terms of home and workshop projects as well as applications in the field of art.

This course of study will provide the student with a basic background in the welding field in addition to job entry-level (or above) skills in the following: Oxyacetylene Welding, Brazing and Cutting (OAW), Electric Arc Welding (SMAW), Tig or Heliarc Welding (GTAW), Mig Welding (GMAW) and Carbon Arc and Arc-Air Welding, Cutting and Brazing (CAW).

Suggested Course Sequence

1st Semester			**Semester Hours**
MTH 110*	Intermediate Algebra	**MA CT**	4
MFT 111	Machine Tools	**GA**	4
WELD 110A	Basic Oxyacetylene Welding, Cutting and Brazing		1
WELD 110B	Basic Shielded Metal Arc Welding I		1
WELD 110C	Shielded Metal Arc Welding II		1
WELD 114	Print Reading and Fabrication Design		3
WELD**	Electives (from approved list)		3
			16.5

2nd Semester			**Semester Hours**
MTH 111*	Plane Trigonometry	**MA CT**	2
WELD 219	Fabrication		3
WELD**	Electives (from approved list)		9
			14

Total Credit Hours/Range Total Contact Hours = 31/39+

*or MTH 112 or higher; Students have the option of taking MTH 112 as a replacement for MTH 110 and MTH 111.

**Student is to choose WELD Electives from list below. See Welding instructor for help with course sequencing.

NOTE: All WELD courses are taught on an individualized, self-paced, open-lab basis with flexible class times available both days and evenings.

Approved Welding Electives		**Semester Hours**
WELD 210	Shielded Metal Arc Welding Advanced	3
WELD 211	M.I.G. Welding, Advanced	2
WELD 212	M.I.G. Pipe Welding	4
WELD 213	M.I.G. Pipe Welding, Advanced	3
WELD 214	T.I.G. Welding, Advanced	2
WELD 215	T.I.G. Pipe Welding	4
WELD 216	T.I.G. Pipe Welding, Advanced	3
WELD 220	S.M.A.W. Pipe Welding	4
WELD 221	S.M.A.W. Pipe Welding, Advanced	3

EMPLOYMENT-RELATED ACADEMIC OPPORTUNITIES

APPRENTICESHIP
(810) 989-5790

In today's highly technical world, whether in industry, commerce or public services, apprenticeship is still one of the best ways to acquire occupational skills required for full qualification in an ever-increasing number of career fields.

Apprenticeship is a prescribed learning experience during which an individual who is an "apprentice" learns a trade through several years of on-the-job training and Related Trade Instruction (RTI). Apprenticeships usually last about four years, in which the apprentice is a full-time employee.

Apprenticeship programs are registered with the Office of Apprenticeship, U.S. Department of Labor. Upon successful completion of both the Related Trade Instruction and a predetermined work schedule, the apprentice receives a Certificate of Completion from the Federal Bureau of Apprenticeship. The apprentice will also receive a Certificate of Program Completion from St. Clair County Community College. Apprentices have the opportunity to continue their education in a prescribed curriculum and earn an associate degree.

JOB UPGRADING
In cooperation with local industries, the college has also established an "Upgrader Program." An upgrader is any person working in or learning an apprenticeable occupation, but is employed by a company not participating in a registered program even though the occupation is apprenticeable.

These programs are excellent Earn-As-You-Learn training, which allow the student to earn college credit. Credit and work experience earned in this program may be applied to an apprenticeship RTI if the employer becomes an active participant in apprenticeship. Enrollment in these specialized courses or programs is made with the College Apprenticeship Coordinator.

Many programs for different vocations are available. Inquiries regarding these programs should be made to the College Apprenticeship Office at (810) 989-5790.

ENROLLMENT OPTIONS

Adult students who desire to improve their working knowledge through related trade instruction, individuals who are required to attend specific classes as part of a company apprenticeship program, working adults in training or upgrading programs, or any individual who can profit from the instruction may enroll.

TUITION

Payment must accompany enrollment.

ATTENDANCE

To comply with apprenticeship training regulations, there is a rigid check on classroom attendance. Each apprentice should be present and on time for every class session.

COOPERATIVE EDUCATION (CO-OP)

Co-op is a program which incorporates actual work experience into the planned college curriculum. After successful completion of the basic courses, students may elect to enter a co-op experience. Co-op allows the student to be placed in an approved training environment, earn college credits for satisfactory work performance and earn wages for hours worked.

To participate in this program, students must be qualified and receive approval from their department faculty advisor prior to the semester that co-op work experience is desired.

The following programs offer co-op education:

Administrative Executive Assistant
Administrative Legal Assistant
Administrative Medical Assistant
Computer Information Systems
- Applications
- Networking
- Programming
- Web Development

Medical Clinical Assistant
Robotics Automation Technology

INTERNSHIP

Internship is another means for students to apply classroom theory to work situations. Through the integration of academic study and work experience, students enhance their academic knowledge, personal development and professional preparation. This is a structured work experience for college credit that is developed by the department faculty advisor, the employer and the student. See department faculty for more details.

The following programs offer internships:

Alternative Energy Technology
Broadcasting
Communications Media
Computer Information Systems
- Applications
- Networking
- Programming
- Web Development

Early Childhood Education
Health Information Technology
Journalism
Management
Marketing
Office Administration
- Clinical Medical
- Executive
- Legal
- Medical

Radio Frequency Identification Technology
Robotics/Automation Technology
Transportation and Logistics

St. Clair County
Community College

ENROLLMENT & SUPPORT SERVICES

ONE-STOP STUDENT SERVICES OFFICE
ENROLLMENT SERVICES/ADMISSIONS

Registrar
123 Acheson Technology Center (ATC)
(810) 989-5500, Fax: (810) 989-5541
enrollment@sc4.edu
Monday and Thursday 8 a.m. to 6 p.m.
Tuesday and Wednesday 8 a.m. to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

The Enrollment Services office provides the following services:

- Maintenance of student academic records
- Collection and distribution of grades
- Evaluation of transfer credit
- Advanced standing credit (e.g, AP, CLEP)
- Verification of degrees/certificates
- Calculation of academic honors
- Distribution/collection of admission related materials
- Distribution/collection of registration related materials
- Registration and payment (including drops, adds and withdrawals)
- SC4 official/non-official academic transcript requests
- SC4 enrollment verifications
- Residency verifications (used for billing purposes)
- Name and address changes

CAMPUS TOURS

SC4 campus tours are provided free of charge upon request. Prospective students are encouraged to contact the Admissions office to schedule a tour with a Student Ambassador. Tours include visits to Student Services offices, buildings, classrooms and programs of specific interest. Requests for tours can be made by calling (810) 989-5574 or visiting www.sc4.edu/tour.

ADMISSION INFORMATION

Admission to SC4 is open to all applicants who are high school graduates and those who have successfully completed the General Education Development (G.E.D.) test. In addition, students who have stopped attending high school, as well as home schooled students, are eligible for admission if their high school class has graduated by their intended semester of enrollment. Students seeking admission prior to high school graduation may be admitted on a semester by semester basis as a guest student.

SC4 strongly encourages students to submit a Social Security Number on the application for admission. The Social Security Number is used as the single unique identifier that facilitates the coordination of a student's academic record, especially those submitted by external institutions. Without the Social Security Number, the college cannot provide tuition-related Federal Tax Credit information, award federal/state financial aid and may have difficulty providing the accurate coordination of academic records.

ADMISSION PROCEDURES FOR NEW STUDENTS
(First-time enrollment following high school graduation)

1. **Application**

   Anyone wishing to apply for admission must complete an SC4 Application for Admission. Students are encouraged to apply online at www.sc4.edu/apply. Applications also are available from high school counseling offices, by contacting the SC4 Enrollment Services office at (810) 989-5500 or through the SC4 website at www.sc4.edu/admissions.

   A record of high school grades, and/or G.E.D. scores, is required and must be submitted with the application. This record can be obtained by contacting the high school from which graduation occurred. If for some reason the high school is no longer in existence, students are encouraged to contact the Michigan Department of Education for further information.

2. **Assessments**

   SC4 supports the concept that its students should be competent in reading comprehension, writing and math skills in order to succeed in both their college courses and their lifelong career choices. Recognizing the college's commitment to quality education for its students and the communities they represent, SC4 requires students enrolling in SC4 for the first time following high school graduation to complete the SC4-administered COMPASS assessment tests or submit ACT scores (*valid tests are those completed within the last three years).* These assessments are used to develop an educational plan tailored to the skills of each student. Scores are used for course placement. A preview of the COMPASS assessment is available at http://act.org/compass/sample/index.html. Students are encouraged to visit the website prior to testing.

   The COMPASS assessment tests are given free-of-charge on campus and at select off-campus centers.

   To schedule the COMPASS assessment, visit www.sc4.edu/compass or call the Achievement Center at

(810) 989-5555 or the Student Success Center at (810) 989-5520. Information for high school students regarding the ACT can be obtained by contacting the high school counseling office.

3. **Orientation**
   New students attending SC4 for the first time following high school graduation are required to complete an orientation session prior to enrollment. Orientation provides students with important information on SC4 requirements and procedures and prepares students for their academic advising appointment with an advisor. As a convenience to students, orientation sessions are completed online at http://sc4.webstudy.com. Contact the Enrollment Services office at (810) 989-5500 for assistance.
4. **Advising**
   All new students attending SC4 for the first time following high school graduation are required to meet with an SC4 advisor in the Student Success Center. The purpose of the appointment is to develop a personal educational plan consistent with a student's career goals and to select classes for the first semester of enrollment. To schedule an advising appointment, visit www.sc4.edu/advising or call the Student Success Center at (810) 989-5520.
5. **Registration**
   Upon completion of all pre-enrollment requirements, students will be allowed to register for classes by selecting the days and times they would like to attend. Classes are offered at a variety of different times, including day, evening and weekend. In addition, some classes are offered online, and in accelerated or short-term formats. Once class times have been selected, students are free to register online via www.sc4.edu/wave or in person. A registration statement may be printed that details class schedule and billing information once registration is complete. There is a **non-refundable student fee** assessed once per semester.
6. **SC4 099: Intro to SC4**
   This free, three-hour course provides important information about academic planning, classroom success, WAVE, student email, financial aid, registration, student activities and tutoring services. Register online at www.sc4.edu/wave or in-person in Room 123, Acheson Technology Center. Students are required to have successfully completed SC4 099 before being allowed to register for their second semester.
7. **Activate student email**
   All students must activate their student email account. SC4 uses email to communicate important information about: billing, classes, deadlines, events, refunds and registration. Students

should remember to check their SC4 email account often. For assistance, call the Helpdesk at (800) 630-8918 or (810) 989-5858.

ABILITY TO BENEFIT ADMISSION

(No high school diploma or G.E.D.)

Students who did not graduate from high school or complete the General Education Development (G.E.D.) or who may be homeschooled or beyond the age of compulsory attendance in high school may be admitted to SC4. They are required to follow the same enrollment requirements as those students attending SC4 for the first time following high school graduation.

TRANSFER ADMISSION

Transfer students, those who have attended another college/ university, are required to submit an SC4 Application for Admission to the SC4 Enrollment Services office. Students are encouraged to apply online at www.sc4.edu/apply. Applications also may be obtained by downloading a printable copy at www.sc4.edu/admissions or by contacting the Enrollment Services office at (810) 989-5500. In addition, official high school transcripts must be submitted along with any college/university transcripts that the student wishes to have evaluated for transfer credit to SC4. For more information regarding the transferability of courses, students may access the Michigan Transfer Network at www.michigantransfernetwork.org or contact the Registrar at (810) 989-5550.

Upon submission of the completed application, transfer students are required to meet with an SC4 advisor prior to enrollment. Once the appointment has been completed, students are free to register for classes online via www.sc4.edu/wave or in person in the Enrollment Services office.

EARLY ADMISSION − HIGH SCHOOL GUEST ENROLLMENT

(Must apply each semester)

The Early Admission − High School Guest program affords high school students and age-appropriate homeschooled students the opportunity to get a head start on college by allowing them to take college credit courses prior to graduation.

High school juniors and seniors and age-appropriate homeschooled students may be admitted to SC4 on a semester-by-semester provisional basis upon completion of the following admission procedure:

1. **Early Admission Application**

   High school juniors and seniors and age-appropriate homeschooled students must submit a completed Early Admission Application prior to each semester of enrollment to the SC4 Enrollment Services office. The application must bear the signatures of the designated high school official if enrolling under the Dual Enrollment payment option, parent/legal guardian (if under 18 years of age) and student. In addition, the application must list the course(s) in which the applicant intends to enroll. Students planning to attend SC4 starting with the summer session, which begins annually in late June following high school graduation, also will be required to submit the SC4 Application for Admission as a new student.

2. **Assessments**

   SC4 supports the concept that its students should be competent in reading comprehension, writing and math skills in order to succeed in both their college courses and their lifelong career choices. Recognizing the college's commitment to quality education for its students and the communities they represent, SC4 requires students enrolling in SC4 for the first time following high school graduation to complete the SC4-administered COMPASS assessment tests or submit ACT scores (*valid tests are those completed within the last three years).* These assessments are used to develop an educational plan tailored to the skills of each student. Scores are used for course placement. A preview of the COMPASS assessment is available at http://act.org/compass/sample/index.html. Students are encouraged to visit the website prior to testing.

   The COMPASS assessment tests are given free-of-charge on campus and at select off-campus centers.

   To schedule the COMPASS assessment, visit www.sc4.edu/compass or call the Achievement Center at (810) 989-5555 or the Student Success Center at (810) 989-5520. Information for high school students regarding the ACT can be obtained by contacting the high school counseling office.

3. **Orientation**

   New students attending SC4 for the first time following high school graduation are required to complete an orientation session prior to enrollment. Orientation provides students with important information on SC4 requirements and procedures and prepares students for their academic advising appointment with an advisor. As a convenience to students, orientation sessions are completed online at

http://sc4.webstudy.com. Contact the Enrollment Services office at (810) 989-5500 for assistance.

4. **Advising**
   All new students attending SC4 for the first time following high school graduation are required to meet with an SC4 advisor in the Student Success Center. The purpose of the appointment is to develop a personal educational plan consistent with a student's career goals and to select classes for the first semester of enrollment. To schedule an advising appointment, visit www.sc4.edu/advising or call the Student Success Center at (810) 989-5520.
5. **Course Prerequisites**
   It is the responsibility of all High School Guests to meet course prerequisites prior to registration. Guests who have not met required course prerequisites will not be allowed to register.
6. **Dual Enrollment**
   High school juniors and seniors may qualify to register as High School Guest students at SC4 under the Dual Enrollment Program established by the State of Michigan. Dual Enrollment is a form of payment whereby the student's high school pays for college tuition and possibly other college-related fees. Additional questions regarding Dual Enrollment should be directed to the student's local high school official or to the Michigan Department of Education at (517) 373-4213.
7. **Registration**
   High School Guests can register online at www.sc4.edu/wave or in person in the Enrollment Services office. Students are responsible to pay for all tuition and fees that are not covered by the high school. Payment schedule compliance is required to maintain class registration. For specific information regarding registration times, refer to the registration calendar (www.sc4.edu/registrationcalendar) for the semester of intended enrollment or call SC4 Enrollment Services at (810) 989-5500.
8. **SC4 099: Intro to SC4**
   This free, three-hour course provides important information about academic planning, classroom success, WAVE, student email, financial aid, registration, student activities and tutoring services. Register online at www.sc4.edu/wave or in-person in Room 123, Acheson Technology Center. Students are required to have successfully completed SC4 099 before being allowed to register for their second semester.
9. **Activate student email**
   All students must activate their new student email account. SC4 uses email to communicate important information about: billing, classes, deadlines, events, refunds and registration. Students should remember to check their SC4 email account

often. For assistance, call the Help Desk at (800) 630-8918 or (810) 989-5858.

CONDITIONAL ADMISSION FOR UNDERAGE STUDENTS

(Must apply each semester)

Admission may be granted on a conditional, semester-by-semester basis for students younger than 16 years of age. Students who are academically qualified will be considered for admission as a guest by the Registrar once they have satisfied the following:

1. Must complete and submit the Early Admission Application form, including parent/guardian signature.
2. Must complete assessment testing (i.e., COMPASS) at SC4 to demonstrate college level skills in the areas of reading, writing and math.
3. Must complete online orientation.
4. Must meet with an SC4 advisor to discuss desired courses and establish an academic plan.
5. Must receive instructor permission for each desired class section in order to officially register and attend classes at SC4.

Students attending SC4 under Conditional Admission are considered "guests" to the college and must follow the above process prior to each semester of enrollment. Guest students are not eligible to receive financial aid assistance and may have limited participation in college related clubs and activities. Guest students also are required to successfully complete SC4 099: Intro to SC4 before being allowed to register for their second semester.

COLLEGE GUEST ADMISSION

(Must apply each semester)

College students attending another college/university in Michigan may be admitted to SC4 as a College Guest on a provisional basis by submitting a completed Michigan Uniform Undergraduate Guest Application. These applications are available in the Registrar's office at each Michigan college/university and in the Enrollment Services office at SC4, or through the SC4 website at www.sc4.edu/admissions.

College Guests must apply each semester of enrollment and the application should bear the official signatures of the college/university home school where the student is enrolled.

College Guest students are not required to meet with an SC4 advisor prior to registration or to complete assessment tests. Registration for classes may be completed online via

www.sc4.edu/wave or in person in the Enrollment Services office. For a complete listing of courses and registration information, refer to www.sc4.edu/wave. To review transfer course equivalencies, refer to the Michigan Transfer Network at www.michigantransfernetwork.org. College Guest Students are responsible for working with their home institution to ensure course transferability.

Note: It is the position of SC4 that College Guests have met all SC4 course prerequisite requirements and will therefore be allowed to register accordingly.

RETURNING STUDENTS

Former students who have not enrolled in SC4 college credit courses for two consecutive calendar years are required to complete an SC4 Returning Student Update Form in order to reactivate their student status. The information provided is used to update the student's demographic and academic information. Once a completed form has been processed by the Enrollment Services office, a student may register online via www.sc4.edu/wave or in person in the Enrollment Services office. Former students are not required to see an advisor prior to registration. However, due to continuous changes in the SC4 curriculum and Michigan college/university transfer information, an advising appointment is highly recommended. Students may contact the Student Success Center at (810) 989-5520 to schedule an appointment.

COLLEGE GRADUATE ADMISSION

(Students with an associate degree or higher)

Students seeking admission to SC4 who have completed an associate, bachelor's, master's or higher degree may do so by completing the SC4 Application for Admission. Students with a college degree are not required to see an SC4 advisor prior to registration but may schedule an appointment with the Student Success Center at (810) 989-5520. Once the application has been processed by the Enrollment Services office, students will be allowed to register online via www.sc4.edu/wave or in person in the Enrollment Services office.

Note: College graduates are required to meet course prerequisites prior to enrollment.

INTERNATIONAL STUDENT APPLICANTS

123 Acheson Technology Center (ATC), (810) 989-5500

St. Clair County Community College welcomes international students to its campus community. Applicants from other countries

will be admitted on an individual basis.

ADMISSION REQUIREMENTS FOR INTERNATIONAL STUDENTS

1. Apply for admission. The International Student Application for Admission is available online at www.sc4.edu/international. Application deadline dates for each semester:

Fall semester	June 1
Winter semester	Oct. 1
Spring semester	March 1
Summer semester	March 1

   Note: Only Canadian commuter students are permitted to start in the spring or summer session.

2. Submit a certified English translation of school records (high school transcript and diploma, and, if applicable, college transcripts).
3. Submit a copy of a valid passport. (Passport must be valid for a period extending at least six months past a student's expected program completion date.)
4. Submit a statement of financial solvency for the amount of $15,000 ($9,100 for Canadian commuter students). This information is required for all students planning to enter the United States. It is required by St. Clair County Community College in compliance with regulations set forth by the U.S. Bureau of Citizenship and Immigration Services. U.S. consulate officials require evidence of financial support before a student visa is granted. Students may not include expected income from employment during the academic year or summer months as proof of resources.
5. Submit completed Financial Resources form (found in the International Student Application for Admission).
6. Submit a signed F-1 contract form (found in the International Student Application for Admission).
7. Submit a handwritten personal statement in English (two pages maximum) summarizing educational and professional goals. Applicant must include plans for the future and how SC4 can help the applicant meet these goals.
8. Applicants must provide proof of English ability by submitting official scores from the Test of English as a Foreign Language (TOEFL) or an ELS Language Center. No other scores will be accepted. Students must score a minimum of 512 on the paper-based version of TOEFL, or a minimum of 68 on

the Internet-based version of TOEFL. The St. Clair County Community College code for TOEFL is 1628. The minimum ELS proficiency level required is 109. Students' home countries whose official language is English need not submit English proficiency scores. See the International Student Application for Admission for a complete listing of English-speaking nations. Non-U.S. applicants also are exempt from the TOEFL requirement if they have completed one full academic year at a college or university in the United States as a full-time student. Applicants from Puerto Rico must meet the TOEFL requirement.

9. Submit International Student Transfer form, if transferring from a U.S. college or university to SC4 (found in the International Student Application for Admission).

Upon completion of the steps listed above, students will be issued a Form I-20. Applicants are required to pay a $200 SEVIS I-901 fee when issued a Form I-20. If you need a visa to enter the United States (visa-exempt countries include Canada and Bermuda), you **must pay the SEVIS I-901 fee before going to the United States embassy or consulate for your visa interview.**

You may complete the I-901 form and make payment by using the following options:

ONLINE
This is the fastest option. Go to www.fmjfee.com. Payment via credit or debit card is required. Visa, MasterCard and American Express are accepted credit cards. Debit cards must contain the logo of either Visa or MasterCard.

BY MAIL
Complete the paper version and mail, along with your check or money order in U.S. funds (monies must be drawn on a bank located in the United States – do NOT send cash) payable to "I-901 Student/ Exchange Visitor Processing Fee" to:

I-901 Student/Exchange Visitor Processing Fee
P.O. Box 970020
St. Louis, MO 63197-0020
United States

BY COURIER (to expedite delivery to SEVP; requires an additional $35.00 shipping and handling fee)
I-901 Student/Exchange Visitor Processing Fee
1005 Convention Plaza
St. Louis, MO 63101
United States

Be sure to write the name of the student and the SEVIS identification number on the check. Questions concerning the I-901 fee can be addressed by calling the I-901 customer service hotline at (314) 425-1809 (United States country code 011).

HEALTH INSURANCE
Prior to arriving in the United States, it is required that international students provide proof of U.S. health insurance which includes repatriation coverage. (Canadian students must purchase supplementary travel health insurance and submit a copy of Canadian Health card.)

International students are required to report to the SC4 International Programs Coordinator within 10 days of arrival to the United States. International students are required to complete pre-enrollment steps including orientation, academic assessments and academic advising before being allowed to register. Tuition for classes must be paid at the time of registration.

HOUSING
St. Clair County Community College does not provide housing for students. Students must make housing arrangements prior to arrival in Port Huron. Upon acceptance to SC4 and receipt of F-1 Visa, the International Programs Coordinator will provide resources to international students requiring assistance in researching housing options.

CANADIAN RESIDENTS
All Canadian residents must apply for admission to the college by completing the International Student Application for Admission.

Lambton County residents are charged tuition at the same rate as Michigan (out-district) residents. However, St. Clair County Community College participates in a Tuition Reciprocity Agreement with Lambton College that allows Lambton County residents to be charged at in-district tuition rates. To qualify, students must enroll in a program at SC4 that is not offered, or is at capacity, at Lambton College. Students must receive approval from the Lambton College Registrar and submit the Tuition Reciprocity form to SC4's Registrar's Office, 123 Acheson Technology Center, in order to be reassessed at in-district rates. Contact Enrollment Services at (810) 989-5500 or Lambton College at (519) 541-2403 for additional information.

Note: The Lambton County Tuition Reciprocity Agreement is subject to change without notice by action of the Board of Trustees.

All Canadian residents living outside Lambton County are charged foreign student tuition rates. Canadian students planning to commute

must obtain a Form I-20 and pay the SEVIS I-901 fee each semester. The Form I-20 is required to cross the U.S./Canada border. Because SC4 is located within 75 miles of the port of entry, Canadian commuter students are permitted to attend part-time.

PERSONAL ENRICHMENT

Students interested in enrolling in college credit classes at SC4 for the purpose of personal enrichment may do so without having to complete the admission requirements of first-time college students. Personal enrichment students are required to submit an SC4 Application for Admission. On the application, the student must designate the program “major” as PERPE - Personal Enrichment. The only remaining requirement is that the student must meet all course prerequisites prior to registration, including assessment tests if required.

Note: Financial aid funding cannot be used toward the completion of courses taken for the purpose of personal enrichment.

Note: Once the Application for Admission has been processed by the Enrollment Services office, personal enrichment students may register online via www.sc4.edu/wave or in person in the One-stop Student Services office.

REGISTRATION INFORMATION

123 Acheson Technology Center (ATC)
(810) 989-5500, Fax: (810) 989-5541
enrollment@sc4.edu
Monday and Thursday 8 a.m. to 6 p.m.
Tuesday and Wednesday 8 a.m. to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

SCHEDULE OF CLASSES

In an effort to provide students the best detail possible to plan their class schedule in advance, SC4 offers the WAVE, an online class schedule and registration system at www.sc4.edu/wave. The WAVE provides students with updated class schedule information including the number of openings available.

SC4 offers classes in a variety of formats including day, evening, weekend, online, accelerated, short-term and other formats. Students are encouraged to register early each registration period in order to take full advantage of these opportunities.

An online schedule planning tool is available to help students quickly put together their best schedule. The tool acts as a customized personal assistant, allowing students to enter times they aren't available for class and then choose from numerous schedules. To access the tool, visit www.sc4.edu/wave, login and click the "Schedule Planner" link under the "Registration" heading.

REGISTRATION

There are two ways to register for classes:

Online: Students may register for classes online via the WAVE at www.sc4.edu/wave.

Walk-in: Students may register in person in the One-stop Student Services office.

Registration times vary. Refer to the registration calendar at www.sc4.edu/registrationcalendar for specific registration dates/times.

It is the responsibility of the student to follow the established procedure for adding, dropping or withdrawing from classes. It is the student's responsibility to confirm the accuracy of both registration and billing information at the time of enrollment. Award amounts listed for students receiving financial aid and/or scholarships are "pending" and may be adjusted following registration. **Students are responsible for payment of tuition and fees not covered by financial aid and must**

drop classes within the established refund period. In the event that a student declines a financial aid award, or does not register for the minimum number of required credit hours, the student is responsible to drop the class(es) prior to the final drop/add deadline date.

REGISTRATION RESTRICTIONS

SC4 students will not be allowed to register if they do not have a valid address on file with the college or if they owe outstanding balances to the college for tuition or fees. A registration restriction will be imposed for students who have been dropped for non-payment twice in the same semester.

CLASS AUDIT

If a student wishes to register for a course and receive no credit, the student must indicate "audit" either on the registration form or when registering online. "Audit" means that a student has registered, paid and is attending a college credit course, but **will receive no credit or grade for the course**. Students auditing a class are still required to meet all course prerequisites.

Students who choose to "audit" a class **must designate this registration status at the time of registration or by the end of the drop/add period**. Once a class has been registered as an "audit," no adjustments may be made to change the course status to college credit after the drop/add period has ended. Conversely, once a class has been registered for college credit, a student may not change the status of the class to "audit" after the drop/add period has ended. Students failing to comply with this requirement will be held responsible for the resulting consequences. Ultimately, it is the student's responsibility to verify the accuracy of the registration and billing statement at the time of registration.

OFF-CAMPUS CENTERS

Students planning to take courses at one of the SC4 off-campus centers may register online via www.sc4.edu/wave or in person in the One-stop Student Services office. Payment schedule compliance is required to maintain class registration.

RESIDENT AND NON-RESIDENT POLICY

(Determines tuition rate)

Residents of the St. Clair County Community College district pay taxes to support SC4 through a voter-approved millage rate. The current SC4 district is based upon local school districts and does not include persons living in St. Clair County who reside in Anchor Bay, Armada, Richmond or Croswell-Lexington school districts. Therefore, students

who live within the SC4 district are charged less per contact hour than those who live outside the SC4 district.

SC4 students are responsible for maintaining an accurate address at the college for the purpose of billing tuition appropriately as well as mailing refunds or other pertinent information. Because residency corresponds to a student's address and consequently determines tuition rates, a student wishing to be classified as an SC4 in-district resident must meet the following requirements:

1. Must have been a bona fide resident in the SC4 college district for **at least 30 days prior to the start of the semester.**
2. Must have been a bona fide resident of Michigan for **at least six months prior to the start of the semester.**

Note: International students (i.e. those students attending SC4 on an F-1 Visa) cannot establish residency.

Residency of all students under 18 years of age follows that of their parents or legal guardians. Students who falsify their residency will be subject to payment of tuition at the correct residency rate. Charges in such cases will be retroactive.

Students who have moved from out-district to in-district **must complete the following steps, <u>prior to the start of classes</u>, to be charged at the in-district rate:**

1. Complete a Proof of Residency Form (available in the One-stop Student Services office or online at www.sc4.edu/forms).
2. Provide a copy of a valid Michigan driver's license or Michigan ID card showing the current in-district address dated a minimum of 30 calendar days prior to the start of classes.
3. Provide at least one additional proof showing the current in-district address dated a minimum of 30 days prior to the start of classes. The second proof may be:
    a. A rent receipt or letter from the landlord (must be notarized at least 30 days prior to start of classes)
    b. A lease agreement
    c. Utility bill(s) issued in the student's name

Appeals may be made to the Registrar. The proof of residency outlined above must include the student's name, current address and be dated a minimum of 30 calendar days prior to the start of semester.

Please note that all changes in residency status should be reported immediately to the One-stop Student Services office, Room 123, Acheson Technology Center.

NAME AND ADDRESS CHANGES

Students are required to report name and address changes directly to the One-stop Student Services office. As a matter of convenience, students may print the Name and Address Change form located on the SC4 website at www.sc4.edu/forms. Students may also submit address changes online via www.sc4.edu/wave. Students wishing to update their name(s) must provide legal documentation (marriage license, court documentation, divorce papers, etc.) before name changes are processed. If the address is being changed from an out-district address to an in-district address, residency change procedures must be followed as outlined in the aforementioned section. Failure to submit the necessary forms pertaining to a given semester may result in the One-stop Student Services office being unable to provide requested services. As a result, students will be held responsible for the consequences of such action.

COURSE CANCELLATIONS

SC4 makes every attempt to run all classes; however, it is unfortunate that some classes must be cancelled because of low enrollment. Students whose class(es) have been cancelled will be notified as soon as possible. Students are encouraged to enroll in other available classes or see an academic advisor for assistance in selecting other class options. If students choose not to enroll in another class, they will be refunded the tuition for the cancelled class. Students are cautioned to check with the Financial Aid office to see if financial aid funding is affected if the cancelled class is not replaced in a student's class schedule.

FACULTY ABSENCE TELEPHONE LINE

The college has established a telephone line, (810) 989-5770, that students can call to find out about class cancellations and faculty absences. The information on this line is updated throughout the day, Monday through Friday and on Saturday by 7 a.m. SC4 will also use this line to inform students of college closings due to inclement weather.

DROPPING/ADDING AND LATE REGISTRATION

Students may adjust their schedule with 100% tuition refund by dropping/adding courses either online or in person during the established deadlines for each course, as listed below. **Students are responsible to complete the appropriate drop/add procedure by the designated deadline dates.** No refunds will be processed for drops processed after the established deadline.

Course Length	Drop/Add with a Refund
16 weeks	9 calendar days from the semester start date
3 to 15 weeks	5 calendar days from the start date of the class
1 day to 2 weeks	first day of class

CLASS WITHDRAWAL

(Period following Drop/Add and Late Registration)

Once the drop/add period (i.e. 100% refund) has expired, students may withdraw from classes by completing the appropriate process either online or in person. Students requesting withdrawal by the appropriate deadline will receive a final grade of "W." The established deadline dates are listed below.

1. Fall/Winter semester (16-week classes):
   Students may withdraw through the 12th Saturday of the semester.
2. Spring/Summer sessions, short-term and weekend classes:
   Students may withdraw until one week prior to the final class meeting.

Students who withdraw from a class may no longer attend the class and no tuition refund will be processed. Failure to formally withdraw from a class(es) may result in a grade of "E." Ill or injured students unable to withdraw online or in person should have a family member or friend initiate the process by contacting the One-stop Student Services office.

All students requesting a complete withdrawal of classes prior to the 60% date of the semester are encouraged to visit the Financial Aid office to determine the impact that the Federal Return of Title IV Funds rule may have on their current and future financial aid.

CLASS ATTENDANCE

Class attendance policies are established by each individual instructor and are presented to each student on the course syllabus within the first week of class. Punctuality and regular attendance are necessary if the student is to receive maximum benefit from courses enrolled. The responsibility for lecture and scheduled laboratory attendance rests solely with the student.

When work has been affected by unexcused absences or tardiness, penalties may be imposed at the discretion of the individual instructor. As a matter of courtesy, students should explain the reason for absence to their instructors. When possible, this should be done in advance.

If a student stops attending class and does not officially withdraw from the class, or does not make arrangements with the instructor for an "I" incomplete grade (restrictions apply), the instructor has no choice but to issue a final grade of "E" for the class. Students are cautioned to remember that failing grades may affect current and future financial aid.

TRANSCRIPT REQUESTS

Because academic information is protected under the Family Education Rights and Privacy Act (FERPA) of 1974, students must make **all transcript requests either in writing or online via the WAVE, SC4's secure online student information system**. The One-stop Student Services office processes requests to send official transcripts to other colleges/universities, places of employment, students' home addresses, etc. The office also processes requests to send/distribute unofficial transcripts to students on an as-needed basis. There is **no charge** to process transcript requests at SC4.

Transcript requests may be submitted online via the WAVE or forms may be completed by students in the One-stop Student Services office. In addition, forms may be printed from the SC4 website at www.sc4.edu/transcript and faxed to (810) 989-5541. The transcript request form includes full name, birth date, social security number or student number, approximate dates of attendance, other last name(s) if different from the name that the student record may be filed under, number of official or unofficial copies to be sent, name and address(es) of where the transcript(s) is to be sent and the student's signature.

Note: Normally, transcripts sent directly to students are unofficial copies unless the student has specifically indicated in writing on the transcript request form that he/she wishes to receive an official transcript.

Students who owe tuition dollars to SC4 or who have other unmet obligations will be prevented from receiving transcripts (official/unofficial) and degrees/certificates until all financial issues are resolved with the SC4 Business Office.

STUDENT EMAIL ACCOUNTS

Students are assigned an SC4 email account within 24 hours of completing the registration process for college credit courses. Students are bound in their use of this email service by the Acceptable Use Policy found in the College Catalog. Appropriate uses of this service include communicating with:

- Faculty regarding coursework, as approved by the instructor.
- College staff regarding the enrollment process, financial account

status or any other administrative process.
- Classmates regarding course and campus activities.

All students must activate their email accounts. Instructions are provided at www.sc4.edu/emailhelp. SC4 uses email to communicate with all students taking classes for credit, regarding important information about billing, classes, deadlines, events, refunds, financial aid and registration.

To use email, students may go to www.sc4.edu. Click on “Current Students” followed by the “SC4 email” button. Accounts will be inactivated after students have not enrolled in credit classes for a period of 24 months.

STUDENT HELP DESK

SC4’s Office of Information Technology provides a 24/7 help desk for students who need assistance with SC4’s email system and the WAVE online registration and information system. Assistance can be requested by calling (800) 630-8918 or (810) 989-5858.

ACADEMIC RECORDS

123 Acheson Technology Center (ATC)
(810) 989-5550 Fax: (810) 989-5541
enrollment@sc4.edu
Monday through Thursday 8 to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

TIME FRAME FOR DEGREES AND CERTIFICATES

SC4 continuously reviews all academic programs to ensure students receive up-to-date curriculum. Due to the ever-changing nature of the degree programs, SC4 monitors the time frame in which students complete their program. Students may follow the degree requirements included in the catalog year upon initial enrollment at SC4 or select any of the subsequent catalog years for which they are enrolled. **Students will have a maximum of five years to complete the degree/certificate requirements listed in their selected catalog.** For example, students entering SC4 in 2012 may graduate using the 2012 degree requirements until 2017. A student who has not enrolled for a period of five years or more must follow the catalog that is in effect the semester upon re-enrollment to the college.

MULTIPLE ASSOCIATE DEGREES

A second associate degree may be awarded to students who complete the specified degree/certificate requirements. In addition, the student **must complete a minimum of 15 additional credits at SC4** for each additional degree/certificate awarded. For example, if the first associate degree is awarded with 62 credits, the second will require 77, the third 92, etc.

APPLICATION FOR GRADUATION

Students may apply for graduation via their WAVE student accounts, or by completing graduation applications available in the One-stop Student Services office, Room 123, Acheson Technology Center. SC4 students may graduate at the conclusion of each semester. Applications must be submitted by the following deadlines:

Graduation Semester	Application Deadline
May	Feb. 1
June	June 1
August	Aug. 1
December	Oct. 1

Students must satisfy all degree/certificate requirements and have a minimum overall GPA of 2.0 to earn a degree/certificate. Students who do not meet the requirements for graduation may have their application reconsidered for one year.

COMMENCEMENT

All graduation candidates are invited to attend Commencement, hosted annually following the conclusion of the winter semester (May). Honors will be calculated from the end of the previous SC4 semester attended **for Commencement purposes only**. Actual honors will be calculated once the final semester grades are submitted. A bulletin with detailed Commencement information is published in March and mailed to all prospective graduates. Graduation candidates satisfying all requirements and financial obligations to the college will receive their degree/certificate in the mail by approximately:

Graduation Semester	**Approximate Mailing Date**
May	Aug. 1
June	Sept. 1
August	Oct. 1
December	March 30

Replacement degrees and/or additional copies are available for a fee. Contact the Records Office for details.

FRESH START

It is the philosophy of St. Clair County Community College that students may need a “Fresh Start” at some point in their college career. The Fresh Start procedure allows students who were enrolled in one program and have now re-enrolled in a different applied program and successfully completed at least 12 credits the opportunity to have their cumulative grade point average reflect their present academic success in their new program. To be eligible for Fresh Start, students must have at least a two-year stop-out prior to program change. Interested students should contact the Student Success Center, Room 124, Acheson Technology Center, or call (810) 989-5520 to schedule an advising appointment for a complete outline of this procedure.

COURSE SUBSTITUTIONS/WAIVER

Students are expected to take the courses required by the program of study in which they are enrolled. If the circumstances necessitate a substitution, the student must obtain a Course Substitution Request form from the Department chair presiding over their academic program. The form must be completed by the student in consultation with the department chairperson, listing the required course to be substituted, and the rationale for such action. Both the department chairperson and the Registrar must approve all substitutions. **Having a course waived will not reduce the total number of credits required for an associate degree/certificate, the requirements for completion of the General Education competencies, nor the course distribution requirements for the associate degree or certificate program.**

REPEATED COURSES

A college credit course taken at SC4 for which a final grade has been recorded may be repeated a total of two times. The nursing retake policy is located in the Nursing Policy Handbook. Non-credit courses can be repeated indefinitely. A withdrawal ("W") from a class counts as an attempt and is included in the retake policy. Students wishing to repeat a course for the third time must submit an appeal to the Achievement Center.

The best grade earned becomes the officially recorded grade. All attempts remain on the official transcript, including the semester, course number and grade earned, although only the best grade will be used to calculate the grade point average.

TRANSFER CREDIT TO SC4

Students wishing to transfer credit to St. Clair County Community College must have an official transcript sent from their previous college(s). Credits for courses taken elsewhere will be evaluated by the Registrar. Transfer credit is accepted with grades of "C" or better or an equivalent of 2.0 or higher based on a 4.0 scale from other colleges and universities which are approved by the American Council on Education and/or accredited by the Higher Learning Commission or its regional equivalent. Recognized regional associations of colleges and schools include Middle States, North Central, New England, Northwest, Southern and Western. Contact the Registrar at (810) 989-5550 for additional information on transferring credits to SC4.

TRANSFER CREDIT FROM SC4

Students wishing to transfer credits from SC4 to another college/university should work closely with their advisor to ensure the credits will transfer to the school of choice. As a general policy, colleges and universities will not accept courses for transfer with a grade less than "C." Since colleges and universities vary as to the prescribed curriculum for the first two years, it is very important that an entering student choose a specific school(s) for transfer. In addition to using transfer equivalency guides and working with an SC4 advisor, **students are strongly encouraged to contact the transfer institution to ensure the credits they are taking will transfer**. Transfer information is also available through the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) website at www.macrao.org, or the Michigan Transfer Network at www.michigantransfernetwork.org.

Transfer students should also be aware that some four-year colleges and universities consider "I" and "W" grades as less than satisfactory; therefore, it is important to check the transfer policy of the receiving institution.

NOTIFICATION TO STUDENTS OF RIGHTS UNDER FERPA

It is the policy of St. Clair County Community College to comply with the Family Education Rights and Privacy Act (FERPA), the federal law that governs release of and access to student education records.

Definitions

A student is an individual for whom the college maintains education records and who is or has been enrolled in and attended credit bearing courses at the college.

Education records include those records which contain information directly related to a student and which are maintained by the college or by a person acting for the college. The following are not education records: records kept in sole possession of the maker, law enforcement records, records relating to individuals employed by the college, records related to treatment provided by a health professional, records that contain information about an individual after that person is no longer a student, i.e., alumni records.

Directory information may appear in public documents and may otherwise be released to individuals outside the college with the student's specific consent. St. Clair County Community College has designated the following items as directory information:

- Name, address, telephone listing, email address
- Student status; part-time/full-time; freshman/sophomore
- Major field of study
- Weight and height of athletes
- Most recent previous school attended
- Date and place of birth
- Participation in officially recognized activities and sports
- Dates of attendance, degrees, date of graduation and awards

Non-disclosure of directory information may be requested by currently enrolled students. Non-disclosure means the college may not release any directory information about the student, except as permitted under the provisions of FERPA. The college may not even acknowledge to third parties that the person is a student.

Legitimate educational interest is the need to review an education record in order for a college official to carry out his or her responsibilities in regard to performing an administrative task outlined in the official's duties, or performing a supervisory or instructional task directly related to the student's education.

A college official is any person employed by the college in an administrative, supervisory, academic, research or support position; a person elected to the Board of Trustees; a student or college graduate serving on an official college committee or assisting another college official in performing his or her tasks; a person employed by or under contract to, or serving as the agent of, the college to perform a specific task.

Authorized disclosures without the student's prior written consent include but are not limited to information necessary to the health and safety of the student or other individuals if the college determines that there is an articulable and significant threat to the health or safety of a student or other individuals, internal disclosures for legitimate educational reason, information returned to the author/sender of the information, information forwarded to schools where the student plans to enroll or transfer, notice to parents about drug and alcohol violations.

Student Rights
Beginning the first day of class, you have the following rights concerning your student records:

- The right to inspect and review all material in your file(s) except:
    - Professional mental health treatment records to the extent necessary, in the judgment of the attending physician or professional counselor, to avoid detrimental effects to the mental health of the student or of others. These records may, however, be reviewed by a physician or other appropriate professional of your choice.
    - Financial information furnished by your parents in support of an application for financial aid.
    - Confidential letters of recommendation that were placed in your file prior to January 1, 1975.
    - Confidential letters of recommendation concerning admission, employment or honorary recognition, for which you have waived access. (The college may not require you to sign a waiver in order to obtain services, but a person writing a recommendation may insist on a waiver as a condition for his or her writing it.)
    - Personal notes made by a faculty member or counselor that are accessible only to that person and are not shared with others.
    - Materials in any admissions files, until you have been admitted to, and have attended the college.
    - All other records which are excluded from the FERPA definition of education records.

Education records are maintained in a number of college offices. Requests to review records must be made in writing to the responsible official of each office that maintains the records. The responsible office will comply with the request within 45 days of receipt.

- The right to request an amendment of your education records if you believe it is inaccurate or misleading. If you believe there is an error in your record, you should submit a statement to the college official responsible for the record, clearly identifying the part of the record you want changed and why you believe it is inaccurate or misleading. That office will notify you of the decision and advise you regarding appropriate steps if you do not agree with the decision.
- The right in most instances to control access to information in your records by persons or agencies outside the college. With respect to college officials, information from your records will be made available only if the college official can demonstrate a legitimate educational interest consistent with their official functions for the college and consistent with normal professional and legal practices. Except for directory information, however, persons outside the college – including your parents and/or spouse – will be given information from your records only (1) when you authorize it in writing, or (2) in connection with your application for or receipt of financial aid, or (3) in connection with studies conducted for the purpose of accreditation, development and validation of predictive tests, administration of student aid programs, or improvement of instruction, or (4) when disclosure is required in a health or safety emergency or by federal or state law or by subpoena. If information from your record is subpoenaed, a reasonable attempt to notify you will be made as quickly as possible. In addition, the results of a disciplinary hearing conducted by the institution against the alleged perpetrator of a crime of violence will be made available to the alleged victim of that crime.
- The right to limit disclosure of your directory information. If you do not want the college to release those items designated as directory information, you must file a written request to that effect with the Registrar. However, you should carefully consider the consequences of that action before making the decision to do so. Information is not withheld selectively. If you choose to have directory information withheld, all items designated as directory information will be withheld from everyone who inquires. If you have requested non-disclosure of directory information and wish to repeal that request, you must file a written request to that effect with the Registrar.

- The right to a hearing if you believe that you have been improperly denied access to your records, your records contain information that is inaccurate or misleading, or information from your records has been improperly released to third parties. If you believe that one or more of these situations has occurred, contact the head of the office responsible for the record or send an email to the Registrar at cbearss@sc4.edu detailing the specifics of the situation including the office(s) and records involved. If the head of the office does not agree with your contention, you may request a hearing by a hearing panel or hearing officer designated by the Registrar's procedures. If the decision of the hearing panel or hearing officer agrees with you, the necessary corrective action will be taken. If the decision of the hearing panel or hearing officer disagrees with you, you have the right to submit an explanatory statement, which must be included as a permanent part of your record.
- The right to file a complaint to federal officials if you believe that there has been a violation of the rights afforded you under the Family Educational Rights and Privacy Act of 1974. The complaint must be submitted in writing within 180 days of the alleged violation to:

  U.S. Department of Education
  The Family Policy Compliance Office
  400 Maryland Avenue SW Washington, D.C. 20202-5920
  Phone: (800) USA-LEARN (800-872-5327)

Questions about the policies and procedures of any unit should be directed to the head of that unit. Questions about the college's "Policies on Student Rights and Student Records" or about the Family Educational Rights and Privacy Act of 1974 should be directed to:

Carrie Bearss
Registrar
St. Clair County Community College
323 Erie St. P.O. Box 5015
Port Huron, MI 48061-5015
Phone: (810) 989-5501

STUDENT RIGHT TO KNOW

In compliance with the Higher Education Act of 1965, SC4 provides information regarding the college's graduation/completion and transfer-out rates. Questions related to this information should be directed to the Registrar, Room 123, Acheson Technology Center.

As a part of the college's instructional program improvement efforts, and to meet the requirements of the Carl D. Perkins Vocational and Technical Education Act, Section 113 and the Workforce Investment Act of 1998, Section 122, the college uses student Social Security Numbers to compile certain data for the purpose of instructional program improvement and Perkins and WIA reporting. This is in compliance with FERPA. See www.sc4.edu/righttoknow for more information.

SOLOMON AMENDMENT DIRECTORY INFORMATION

Effective March 29, 1997, schools are required to provide the Department of Defense, upon request, access to directory information. Directory information is defined as:

- The student's name, address, and telephone number
- The student's date and place of birth
- The student's level of education, academic major and any degrees received
- The educational institution in which the student was most recently enrolled

Students may request in writing to withhold the release of any or all information to the Department of Defense. Requests should be made to the Registrar.

ADVANCED STANDING CREDIT

SC4 provides students with a variety of alternative ways to earn college credit. Awarded credits will be placed on the transcript as "Credit By Exam/Work Experience" and may or may not transfer to other institutions. The following outlines the many options available.

Credit-By-Exam − Students pay a fee to complete an exam and may earn college credit based upon the results. The following are samples of Credit-By-Exam options.

Advanced Placement (AP) − High school students taking AP courses may pay to take an exam sponsored by the College Entrance Examination Board (CEEB). SC4 grants credit for scores of 3 or above. Students must request that an official copy of their scores be sent directly to the Registrar from The College Board (www.collegeboard.com) or (212) 713-8000.

College Level Examination Program (CLEP) − National standardized tests in selected academic areas. SC4 grants credit for scores of 50 or above, with the exception of ENG 101, which also requires an essay component. Contact the Achievement Center, Room B100, College Center, for details.

Departmental Exams − Course specific exams developed by SC4 faculty that give students the opportunity to earn credit for a specific course. Contact the Achievement Center, Room B100, College Center, for details.

Experiential Credit − Students who can demonstrate they have gained the knowledge contained in a particular course(s) may receive a maximum of 12 credit hours of "Experiential Credit." Credits are only applicable to a specific Applied Arts and Science (AAS) degree program. Students must pay a fee and enroll in the appropriate AAS program for the credits to be applied. For complete details, contact the Registrar, Room 123, Acheson Technology Center.

Military Credit − SC4 may award credit(s) based upon military training. Credits must be directly applicable to the program of study and the student must submit an official military transcript to the Registrar. No fee is required for transcript evaluation services.

Articulation Agreements − SC4 has established articulation agreements with numerous high schools, vocational/technical centers, trade academies, etc. which enable students to receive specific credit(s) within their program of study at SC4. No fee is required but students must complete the articulation application and submit it with the required documentation to the Registrar, Room 123, Acheson Technology Center.

STANDARDS OF ACADEMIC SUCCESS

SC4 monitors the academic progress of all students on an annual basis. A student must make satisfactory progress towards completion of a degree or certificate in order to continue enrollment at the college. The Standards of Academic Success for SC4 students are:

1. Students who have attempted 12 or more credit hours at SC4 with a cumulative GPA of 2.0 or above will be considered "Satisfactory."
2. Students who have attempted 12 or more credit hours at SC4 with a cumulative GPA of below 2.0 will be considered "Unsatisfactory."

Students identified as "unsatisfactory" will be subject to probation and/or dismissal from the college. Details of the complete procedure are available by contacting the Registrar, Room 123, Acheson Technology Center.

GRADING SYSTEM

Following final examinations, grade reports are available to students online via the WAVE, except to those who owe tuition to the college. Grades are recorded as follows:

Letter Grade	Grade Points	Letter Grade	Grade Points
A	4.0 points	D	1.0 points
A−	3.7 points	D−	0.7 points
B+	3.3 points	E	0 points
B	3.0 points	I	Incomplete
B−	2.7 points	W	Withdraw
C+	2.3 points	X	Audit
C	2.0 points	S	Satisfactory
C−	1.7 points	U	Unsatisfactory
D+	1.3 points		

The grade point average (GPA) is computed for each semester as well as for the total credit hours attempted at SC4. In accordance with the grading system scale, students earn grade points for each credit completed at SC4. The GPA is calculated as follows:
Total grade points earned ÷ Number of credit hours attempted = GPA.

INCOMPLETE GRADES

The "I" incomplete grade is used by instructors to note that the student, for good reason, has not completed the course requirements by the time final grades were recorded. To qualify, the student: (1) should have completed at least 80% of the work (excluding the final exam), (2) must have been in good attendance, and (3) can be reasonably believed to complete the course independently with a passing grade. **If agreed to by both faculty member and student, an agreement delineating exactly what is required, how it is graded, and when it is to be completed** must be signed by both parties and placed on file in the Records Office.

Unless otherwise agreed to in the contract**, work must be completed by the end of the next regular semester.** In extenuating circumstances, an extension beyond the normal period may be obtained by the presentation of a petition by the student, and endorsed by the instructor. Incomplete grades are not counted in the cumulative average until the grade is completed. If a grade of "Incomplete" is not removed within the specified time, the grade of "I" will be changed to the grade specified by the instructor on the incomplete grade form.

GRADE CHANGE TIMEFRAME

All grade change requests must be initiated within one year following the end of the course(s) for which the grade was officially recorded. No

grade change requests will be accepted following the expiration of that period of time.

HONORS

Academic Honors will be awarded to students who have earned a minimum of 62 credits for an associate degree and 30 credits for a certificate, based upon the following scale:

- Summa Cum Laude = Overall GPA of 4.0
- Magna Cum Laude = Overall GPA of 3.5 − 3.99
- Cum Laude = Overall GPA of 3.0 − 3.49

STUDENT CLASS LEVEL

Freshman = 1 − 26 credit hours completed
Sophomore = 27 or more credit hours completed

PRESIDENT'S HONOR LIST

Students enrolled in a minimum of 6 credit hours with an SC4 semester GPA of 3.00 or above will be placed on the President's Honor List.

TUITION AND FEES INFORMATION

BUSINESS OFFICE
220 Main Building (MB)
(810) 989-5513, Fax: (810) 989-5514
Monday through Friday 8 a.m. to 4:30 p.m.

Students attending SC4 are responsible for payment of tuition and fees to the college, as well as other costs of attendance including, but not limited to, books, supplies, transportation and other personal expenses.

TUITION

SC4 receives financial support from the taxpayers of the SC4 District through a voter approved millage and the taxpayers of the state of Michigan through state appropriations. Recognizing this support in addition to student tuition and fees, SC4 has established the following tuition structure based on legal residency:

- **In District** – Legal residents of the SC4 District. Does not include St. Clair County residents of the Anchor Bay, Armada, Croswell-Lexington or Richmond school districts.
- **Out of District** – Legal residents of the State of Michigan living outside the SC4 District.
- **Out of State –** U.S. citizen outside the State of Michigan.
- **Foreign** – International students enrolled through visas.

Please refer to the Resident and Non-Resident Policy in this catalog for residency information.

Credit hours are the number of credits the student earns toward graduation. Contact hours are the number of hours the student is in class with the instructor. Additional class time is required for some courses, usually those requiring lab sessions. All students are billed for tuition based on the number of registered **contact** hours.

FEES

- Student fee – A non-refundable fee assessed at time of registration once per semester
- Technology fee – Charged per contact hour
- Laboratory fee – Applies to certain classes only
- Facility fee – Applies to classes taught at off-campus centers outside St. Clair County
- Online fee – Charged per online course
- Program fee – Applies to certain programs of study only
- Other fees may apply

PAYMENT DUE DATES

Payment due dates for tuition and fees vary according to the date of registration. For tuition and fee payment requirements, refer to the current semester schedule. Payment methods accepted are cash, checks, Visa, MasterCard and Discover. A payment plan is available for fall, winter and spring semesters. For information regarding the payment plan, contact the Business Office, Room 220, Main Building.

Residents of the college district age 60 and older may qualify for a tuition reduction on most credit courses. This reduction does not apply to any course fees.

Students auditing a class pay the same tuition and fees as students taking classes for credit.

A registration restriction will be imposed for students who have been dropped for non-payment twice in the same semester.

Current tuition and fee rates can be found on the SC4 website at www.sc4.edu/tuition. The tuition and fee schedule is subject to change without notice by action of the Board of Trustees.

REFUND POLICY

Tuition and refundable fees for 16-week courses dropped through the first nine calendar days for the fall and winter semesters, and the first five calendar days for the spring and summer sessions offered throughout the academic year will be refunded in full. Tuition and refundable fees for short-term classes offered throughout the academic year will be refunded as follows:

Course Length	**Drop with a Refund**
3 to 15 weeks	5 calendar days from the start date of class
1 day to 2 weeks	first day of class

The student fee is non-refundable.

Refunds for less than $5 will be processed upon request. No refund will be made for courses dropped after the aforementioned dates, unless said course(s) are dropped as a result of student illness or injury, or student military service. The student will be required to provide a physician's (or equivalent) verification of illness or injury or proof of being called up for military service. (The student must already be in the service to qualify.) Refunds granted due to illness, injury or military service will be pro-rated. Ill, injured or military students unable to drop in person should have a family member or friend contact the One-stop Student Services office to initiate the process.

Students who receive Title IV Federal Aid and withdraw from any classes during the first 60% of the semester must have the amount of financial aid they are entitled to recalculated. The student/school may be required to return a portion of the federal funds awarded to the student back to the Federal Government. Further information may be obtained in the Financial Aid office.

Students disputing any balance due on tuition/fees must do so within 90 days of the end of the semester in which the dispute has occurred.

ST. CLAIR COUNTY COMMUNITY COLLEGE/ LAMBTON COLLEGE TWINNING AGREEMENT

In the true spirit of international cooperation, St. Clair County Community College and Lambton College in Sarnia, Ontario, have signed a Twinning Agreement which allows residents of St. Clair County and Lambton County to access opportunities for education not readily available in their own county. St. Clair County residents can complete programs not offered at St. Clair County Community College and offered at Lambton College at the Ontario resident fee.
For further information, contact the One-stop Student Services office, Room 123, Acheson Technology Center, (810) 989-5500.

ONE-STOP STUDENT SERVICES OFFICE

FINANCIAL AID

123 Acheson Technology Center (ATC)
(810) 989-5530, Fax: (810) 989-5774
financialaid@sc4.edu
Monday and Thursday 8 a.m. to 6 p.m.
Tuesday and Wednesday 8 a.m. to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

A college education is one of the most important investments you can make. SC4 believes that anyone who desires a college education and is capable of doing college work should have the opportunity to attend. The college understands that students often need help to finance their education. Through a combination of federal, state and private community funding sources, SC4 will work to help eligible students meet college expenses. Many programs base their awards on financial need, but some programs have other requirements such as academic achievement.

Students with questions concerning the financial aid process are encouraged to either call (810) 989-5530 or stop by the Financial Aid office. Staff members are available to meet with students to discuss financial aid options and provide assistance with completing the process. For additional information on financial aid, consult The Student Guide, published by the U.S. Department of Education, and The 5 Ws of Financial Aid, published by the Michigan Department of Treasury. Reliable Internet sources for financial aid information are The Financial Aid Page at www.finaid.org, U.S. Department of Education at www.studentaid.ed.gov or Michigan Student Financial Aid at www.michigan.gov/studentaid. All programs, criteria and funding are subject to change without notice.

FINANCIAL AID APPLICATION PROCESS

All students seeking financial aid at SC4 must first complete an Application for Admission to the college. To be considered for financial aid, the Free Application for Federal Student Aid (FAFSA) must be completed each academic year. Students are encouraged to complete the application online at www.fafsa.ed.gov. Students MUST include SC4's Title IV code, 002310, on their FAFSA to ensure the college receives their financial aid application.

The application process takes approximately **four weeks** to complete; therefore, students are encouraged to apply for financial aid as early as possible. Although Federal Pell Grants and student loans are awarded on a continual basis throughout the year, other state and federal

grants, as well as student employment (work-study), are awarded on a first-come, first-served basis. Limited funds exist in some programs, and they may be depleted early.

An additional SC4 Financial Aid Request form is required for the spring and summer sessions. The application is available in the Financial Aid office in mid-February of each year.

DETERMINATION OF ELIGIBILITY

Most awards are made to students who have demonstrated financial need. The Federal Methodology Formula measures a family's ability to pay college expenses by assessing its financial strength. Family/student income and assets, family size, retirement needs of parents and number of children in college are just some of the factors considered with the federal formula. As a result of the FAFSA application (which supplies the data used in the Federal Methodology formula), each student will receive an Expected Family Contribution (EFC). The EFC is the amount calculated that the student/family could reasonably contribute toward educational expenses and is used in determining financial need.

COST OF ATTENDANCE

A student demonstrates need when the Cost of Attendance **MINUS** the Expected Family Contribution (EFC) is greater than zero. The Cost of Attendance is an average of what it will cost to attend a particular institution for an academic year. It includes tuition and fees, books and supplies, room and board, travel costs and miscellaneous personal expenses. These costs are used only to calculate financial aid eligibility. Actual costs will vary from student to student. The Cost of Attendance for the average in-district, full-time student at SC4 was approximately $11,321 for the 2011-12 academic year. For detailed information on Cost of Attendance at SC4, contact the Financial Aid office.

AWARDING PROCESS

Students are selected to receive financial aid based on program eligibility requirements, deadlines and maintaining satisfactory academic progress. Funds are limited in some programs and awarded to early applicants who meet all requirements. Award amounts are based on demonstrated financial need, cost of attendance, enrollment status, program limitations and the availability of funds. SC4 awards financial aid in the following order: grants and scholarships, work-study programs and loan programs. The type of financial aid offered depends on the amount of need, program regulations, other funding sources, dependency status and availability of funds.

Awards may be adjusted based upon the enrollment status of the student according to the following:

- Full-time = 12 or more credit hours
- Three-quarter-time = 9 − 11 credit hours
- Half-time = 6 − 8 credit hours
- Less than half-time = less than 6 credit hours

RETURNING SC4 FINANCIAL AID STUDENTS

Students must reapply for financial aid each academic year. Program criteria, funding and maintaining satisfactory academic progress is used in determining eligibility for aid. In addition, students cannot owe an over-payment on any federal grant program, be in default on any student loan or have borrowed in excess of the student loan limits at any institution.

ATTENDANCE AT MULTIPLE INSTITUTIONS

Students cannot receive financial aid at another institution and SC4 concurrently unless enrolled under an approved consortium agreement. Students will be responsible for any over-awards and will not be eligible for further aid until the funds are recovered.

STUDY ABROAD

Students may be eligible for federal assistance while attending a study abroad program that is approved for credit by SC4.

DISBURSEMENT OF FINANCIAL AID

Students who have been awarded grants, scholarships or loans will have their accounts credited toward the cost of tuition and fees. Remaining funds will be transferred to the bookstore prior to the beginning of each semester and will remain on the bookstore account through the last day to add and/or drop with a refund.

Any remaining funds after tuition, fees and bookstore charges will be disbursed to the student after the conclusion of the institutional refund period. Credit balances from grant and/or loan awards will be refunded to the student as soon as possible, but no later than 14 days from the date the credit balance occurs on the student account.

Students are responsible for payment of any remaining balance after all financial aid has been applied.

FINANCIAL AID PROGRAMS

The following section provides a brief description of the financial aid programs available at SC4. Enrollment requirements vary by program and can range from less than half-time to full-time enrollment each semester. Awards are based on meeting eligibility criteria, satisfactory academic progress and the availability of funding. Generally, grants

and scholarships are tax free if they are used for qualifying tuition and course-related expenses. Questions regarding tax issues should be directed to the IRS or your tax preparer.

GRANT PROGRAMS

Federal Pell Grant
This is a federal grant program for students without a bachelor's degree enrolled in an undergraduate program who demonstrate exceptional financial need. The award range is set by the federal government each academic year and currently ranges from $400 to $5,550. Enrollment requirements range from less than half-time to full-time depending on individual eligibility.

Federal Supplemental Educational Opportunity Grant (FSEOG)
This is a federal grant program for students without a bachelor's degree enrolled in an undergraduate program who demonstrate exceptional financial need. The award is determined by the college and is based on funds available each year. Enrollment requirements range from less than half-time to full-time depending on individual eligibility.

Tuition Incentive Program (TIP)
This is a high school completion program that offers to pay for the first two years of college and beyond for identified students who graduate from high school or complete their GED before age 20. Contact the Office of Scholarship and Grants at (888) 447-2687 for an application.

SCHOLARSHIPS

Students are encouraged to pick up a copy of the Scholarship Book available in the Financial Aid office between February 1 and mid-March. The Scholarship Book contains current scholarship offerings, criteria and deadline dates. The Financial Aid office also announces student scholarships as they become available through the *Student Connection,* a weekly newsletter emailed to students, as well as online at www.sc4.edu/scholarships. The following is a list of scholarships that have been made available to students attending SC4:

- Howard A. Acheson Memorial Scholarship
- Helen Alexander Scholarship – SC4 Foundation
- K. Altherr Memorial Endowment – SC4 Foundation
- American Legion Post 449 Scholarship
- Vera Andrus Scholarship
- Robert Ange Scholarship
- Mary M. Barss Nursing Endowment Fund
- Beacon Home Care Scholarship for Excellence in Nursing
- Theodora Beard Memorial Scholarship – SC4 Foundation
- Norman D. Beauchamp Scholarship − SC4 Foundation
- Wilford Beauvais Memorial Scholarship – SC4 Foundation

- Irvin and Agnes Bedford Scholarship – SC4 Foundation
- Donald Bezenah Memorial Scholarship – SC4 Foundation
- Guido and Elizabeth Binda Scholarship
- Del James Blessinger Scholarship
- Blessinger Grant in Aid
- Blue Water Chapter of Michigan Association of Retired School Personnel
- Blue Water Garden Club Scholarship
- Blue Water Shipmasters
- Blue Water Sportfishing Scholarship
- Clara E. and Joseph M. Bourke Memorial Scholarship – SC4 Foundation
- Emerson and Lucilda Brown Scholarship – SC4 Foundation
- Edward Bush Memorial Scholarship
- Mayme Bush/Inez Innes Memorial Scholarship – SC4 Foundation
- Joseph Caimi Scholarship Fund
- Jack S. Campbell Memorial Scholarship
- Cardiology Associates of Port Huron Scholarship
- Darin Conrad Memorial Fund
- Howard D. and Annabelle Crull Scholarship – SC4 Foundation
- Delta Kappa Gamma Scholarship
- Disabled American Veterans − Chapter 12 of St. Clair County Scholarship
- Jerry Ebner Memorial Scholarship − SC4 Foundation
- Erie Square Gazette Scholarship
- Virginia Fadel Memorial/Grace Goodwin Scholarship
- Foreign Language Scholarship
- Fort Gratiot Lions Club Scholarship
- Fort Gratiot Rotary Scholarship
- Vera Fuller-Hansen Educational Trust Fund
- Theron and Eleanor Godbold Endowment – SC4 Foundation
- Charles Myron Gossman Scholarship
- Dick Groch Student Athletic Scholarship
- Pauline Groff Music Scholarship
- Christian B. and Agnes A. Haas Memorial Scholarship
- James H. Halamka Memorial Scholarship
- Donna Jean Hale Memorial Scholarship
- Raymond and Mary Haley Memorial Scholarship – SC4 Foundation
- Thomas A. Hamilton Scholarship
- Jeff Harrington Memorial Scholarship
- Kathleen and Irvin Hayward Academic Scholarship – SC4 Foundation
- Lillian Hill Memorial Scholarship
- Hispanic Council of St. Clair County Scholarship
- Paul Jackson Memorial Scholarship – SC4 Foundation

- Kahmann Memorial Scholarship – SC4 Foundation
- Hon. Edward T. Kane Memorial Scholarship − SC4 Foundation
- Ellen Kean Scholarship − SC4 Foundation
- Janet Kelly Memorial/Social Science Department Endowment – SC4 Foundation
- Barbara Ann Kessler Saph Memorial Scholarship
- Charles A. Koppel Scholarship – SC4 Foundation
- Robert and Marilyn Kovach Scholarship
- Velma Jean Kress Nursing Scholarship – Women's Life, Chapter 809
- League of Catholic Women Scholarship
- Hazel and Harold Lewis Memorial Scholarship – SC4 Foundation
- Little Brothers/Little Sisters of St. Clair County Scholarship
- Mari-Lu Rea McDannel Scholarship − SC4 Foundation
- Alfred Maxwell Memorial Scholarship – SC4 Foundation
- May-O'Brien, VFW Post 8465 Scholarship
- Marian Pollock Moore Scholarship
- Marilyn K. Moore Scholarship
- Bessie I. Mueller Endowment
- E. B. Mueller Endowment
- Mueller Brass Scholarship
- Nebraska Book Company Tuition Scholarship
- Dr. Carol Nowakowski Scholarship − SC4 Foundation
- Nursing Program Scholarship – SC4 Foundation
- Robert C. Peck III Scholarship Fund
- Lillian M. Perry Scholarship Fund
- Police Officer's and Fire Fighter's Survivor Scholarship
- Port Huron Garden Club Scholarship
- Port Huron Hospital Auxiliary Scholarship
- Port Huron Lion's Club Scholarship
- Port Huron Police Association Scholarship
- Port Huron Rotary Club Scholarship
- Port Huron Sports Hall of Fame Scholarship
- Port Huron VFW Post 796 Scholarship
- Prestolite Endowment – SC4 Foundation
- Prichard Scholarship – SC4 Foundation
- Prichard Nursing Scholarship – SC4 Foundation
- Gordon and Marlene Rady Scholarship – SC4 Foundation
- Mary Regling Memorial Endowment – SC4 Foundation
- River District Hospital Auxiliary − McFern-Smelzer Scholarship
- St. Clair County AFL-CIO Scholarship
- SC4 Alumni Association Scholarship
- SC4 Board of Trustees Grant
- SC4 Board of Trustees Honors Scholarship
- SC4 Board of Trustees Scholarship
- St. Clair County Community College Retirees Scholarship

- SC4 ESP Student Scholarship
- F. William and Patricia Schwarz Fund
- Carl Schwedler Memorial Endowment – SC4 Foundation
- Clarence Scott Memorial Scholarship – SC4 Foundation
- Evelyn Sharrow Memorial Scholarship Fund − SC4 Foundation
- Sydney Spofford Scholarship
- Carl Steinborn Memorial Endowment – SC4 Foundation
- Student Government Scholarship
- Student Services Grant
- Randy Sugars Memorial Scholarship
- Beverly L. Tansky Memorial Scholarship
- Thomas A. Treleaven Communication Scholarship − SC4 Foundation
- Watson Brothers Centennial Scholarship
- WGRT Broadcasting Scholarship
- James T. Wilhelm Memorial Scholarship Fund
- John F. and Rose Marie Wismer Community Foundation Scholarship
- Bert D. and Rose E. Wright Memorial Scholarship Fund

For further information regarding scholarships, contact the Financial Aid office, Room 123, Acheson Technology Center. Students are also encouraged to seek additional scholarship information from high school counseling offices; fraternal, civic, state and national organizations; and employers who issue information through their own publications.

Michigan Competitive Scholarship Program
This state scholarship program provides up to $1,300 per academic year to students who achieve required scores on the ACT exam, who demonstrate financial need, are citizens or permanent residents and have been continuous residents of Michigan for 12 months. The state of Michigan determines the award.

STUDENT EMPLOYMENT

Federal Work Study (FWS)
This work study program provides funds for part-time employment on campus as well as at some off-campus locations. Employment normally is limited to 20 hours a week for students who enroll for a minimum of six credit hours a semester, maintain satisfactory academic progress and demonstrate financial need. Students eligible for work-study employment should contact Employment Services (Room 120, Acheson Technology Center or by calling (810) 989-5515) for assistance in locating positions.

College Payroll Student
The college employs a limited number of students with specialized skills who are not eligible for the Federal Work Study program. Contact the Financial Aid office for more information.

ADDITIONAL RESOURCES

Tax Credits
Tax credit opportunities are available for qualifying college students. Questions regarding tax issues should be directed to the IRS or your tax preparer. Visit www.IRS.gov for additional information.

Michigan Indian Tuition Waiver
Native North Americans who are members of a U.S. federally recognized tribe certified by the state of Michigan and who are legal residents of Michigan may be eligible for a tuition waiver. Call (517) 241-7748 for additional information.

STUDENT LOAN PROGRAMS

Federal Loan Programs
To qualify for a loan, a student must complete the FAFSA as well as a loan request form available in the Financial Aid office or online at www.sc4.edu/financialaid. All students must participate in entrance and exit counseling as a condition of loan acceptance. Money from federal loans are disbursed in several payments. The amount of a loan is determined by the student's financial need, the student's enrollment status, other aid received and program limits. The school determines eligibility for a Federal Direct/Federal Direct PLUS Loan. If reasons are documented and explained to students in writing, financial aid administrators may decline to certify an otherwise eligible loan application. In addition, a loan may be certified for an amount less than that for which the student would otherwise be eligible. Interest rates, repayment terms and borrowing limits vary with each loan program.

Federal Direct Loan Program
This low-interest loan program is available to students who attend college at least half-time. To receive a Subsidized Direct Loan, the student must demonstrate financial need. This loan is exempt from interest accrual until six months after the student ceases attending on at least a half-time basis. The Unsubsidized Direct Loan has the same terms as a Subsidized Direct Loan, except borrowers are responsible for interest that accrues while they are in school, and the loan is not based on need. The fixed interest rate for subsidized loans is scheduled to be 6.8% for the 2012-13 academic year. The unsubsidized interest rate is fixed at 6.8%.

Federal PLUS Loans
Federal PLUS Loans are for parents who want to borrow money to help pay for their dependent children's educations. The interest rate is fixed at 7.9%. Parents who have no adverse credit history are eligible for PLUS Loans. Students are required to complete the FAFSA before Plus Loan eligibility can be determined.

Private Donor Loans
The following are loan funds that have been established to assist eligible students attending SC4. For complete details and application materials, contact the Financial Aid office.

- Foley Gilbert Nursing Loan
- Jeff Jones and Stephen Endean Memorial
- Mary Koerber Memorial Loan
- Phelps Loan
- Donald Shephard Memorial Loan
- Joseph and Elizabeth Stowe Loan
- Townley Medical Education Loan

All of the Private Donor Loans are interest free. Students are still responsible for the repayment of the loan.

WITHDRAWALS, REFUNDS AND RETURN OF TITLE IV FUNDS

The SC4 refund policy is printed in the Tuition and Fee Information section of this catalog. There are additional implications to consider before dropping classes or withdrawing from any courses during a semester in which a student receives financial aid. One implication is the effect that withdrawals can have regarding the student maintaining satisfactory academic progress. The complete policy is printed in the section below. Another issue is the Return of Title IV Funds Policy. Title IV programs include Federal Direct Loans, Federal PLUS Loans, Federal Pell Grants and Federal Supplemental Educational Opportunity Grants (FSEOG). Return of Title IV Funds is the process of calculating the student's earned and unearned portion of Title IV aid when a student completely withdraws from classes before 60 percent of the semester has passed. For example, if a student completes only 30% of the semester before completely withdrawing, the student has earned only 30% of the aid package awarded to them. If the student received more aid than earned, the college and/or the student may then be required to return some of the funds awarded. Owing money to a federal program may prevent the student from receiving further financial aid. You will be responsible for repaying any unearned aid that you were not entitled to receive. Further information regarding the Return of Title IV Funds Policy is available in the Financial Aid office.

SATISFACTORY ACADEMIC PROGRESS POLICY FOR FINANCIAL AID RECIPIENTS

All financial aid recipients are required to meet satisfactory academic progress guidelines established by SC4, pursuant to federal regulations. This policy applies to all students receiving assistance from any financial aid program we administer. Federal regulations require that the policy include reviewing enrollment periods in which the student did not receive aid, as well as the semesters they did receive aid. This policy is separate from the College's general probation policy and is monitored each semester the student receives aid.

To receive financial aid, the student must maintain satisfactory academic progress toward a degree or certificate at SC4. The following guidelines describe the requirements necessary to maintain financial aid eligibility at SC4:

Eligibility Requirements – Each semester a student must meet all three of the following:

1. Receive a passing grade in at least 67% of their overall credit hours attempted on a cumulative basis, including transfer credits or be a first-time student at SC4, **and**
2. Maintain a cumulative SC4 grade point average of at least 2.00, **and**
3. Along with transfer credits, not have attempted (whether or not earned) more than 150% of the student's official SC4 academic program requirements

A. Pace Requirement (Completion Rate):

Students must complete with a passing grade a minimum of 67% of the credit hours attempted as well as the transfer credits accepted by SC4. Attempted credits are defined as credits you are enrolled in at the end of the drop and add period.

Consequences of failure to meet this requirement:
Students who fail to complete 67% percent of their attempted/transferred in courses in a semester will be placed on warning for one semester. Failure to complete 67% in the next enrolled semester will result in aid denial until the completion rate is brought above 67%. Semesters of non-attendance are not counted in this calculation. Incompletes, withdrawals and courses in which the student receives a failing grade are considered unsatisfactory when determining the 67% completion rate.

B. GPA Requirements

Students must maintain a cumulative GPA of 2.00.

Consequences of failure to meet this requirement:
Students with a cumulative GPA below the standard will be placed on warning. If the cumulative GPA is still below a 2.0 at the end of the next semester of enrollment, the student is denied financial aid until he or she regains the required cumulative minimum GPA.

C. Maximum Time Frame Requirement

Any student who has attempted 150%of the published length of their specific program (as measured in credit hours) is not considered to be making academic progress, and there fore, is ineligible for financial aid funds. Transfer credit hours are counted toward the maximum eligibility. (Example: Liberal Arts = 62 credit hours x 150% = 93 credit hours).

Evaluation of Eligibility

Eligibility is determined at the time a student applies for financial aid and is reviewed at the end of each semester. To establish initial eligibility for financial aid as a current SC4 student,it is required that the past SC4 academic record be reviewed even if the student paid for the classes out of his/her own resources. Written notification will be sent to students placed on Financial Aid Warning, Financial Aid Probation, Financial Aid Termination and Financial Aid Reinstatement if making SAP status.

Financial Aid Eligibility Status

For Completion Rate and GPA measures, students who fail to meet satisfactory academic progress standards in one semester will receive one additional semester of aid while on **Financial Aid Warning** status. At the end of the warning period, a student who still has not met the standards is changed to **Financial Aid Termination*** status. The student's federal aid is terminated at this point and is not reinstated unless the student subsequently meets the required standards.

For Maximum Time Frame measures, students who attempt 150% of the published length of their specific program will be placed in **Financial Aid Termination*** status.

If the student files an appeal which is approved, the status will be changed to **Financial Aid Probation** if the student can meet all of the SAP requirements at the end of that semester. If the student cannot mathematically achieve SAP standards in one semester then

the student will be placed on a **Financial Aid Academic Plan**. The student will be monitored at the end of each semester within the appeal period. If the student meets the requirements of the academic plan, the **Financial Aid Academic Plan** status will continue until the appeal period ends. Students on a **Financial Aid Academic Plan** will have their aid eligibility reinstated and can continue to receive aid as long as all conditions of the plan are met. If the student does not follow the stated academic plan, the status will revert to **Financial Aid Termination*.**

Appeals
A student who does not meet the eligibility requirements due to extraordinary circumstances may appeal in writing to the SAP Appeals Committee. All appeals must be completed using the form found on the SC4 website at www.sc4.edu/forms and must include appropriate documentation. In order for appeal to be complete:

- All questions must be completed on the appeal form or it will be returned to the student.
- As part of the appeal, information regarding why the student failed to make SAP and what has changed in the student's situation that will allow the student to demonstrate SAP at the next evaluation must be included.
- Extenuating circumstances considered for appeals include documented personal illness or accident, serious illness or death within an immediate family, or other circumstances beyond the reasonable control of the student. Students in extended credit hour programs and/or second-degree programs may submit appeals.

Acceptable documentation includes letters from a physician, attorney, social service agency, parole officer, or a copy of a death certificate, divorce decree and/or academic records. An appeal reviewed by the committee does not guarantee reinstatement of financial aid. The student will be notified of the appeal results in writing. All appeal decisions are final.

Reinstatement
Students may regain eligibility by successfully achieving an overall completion rate of 67%, achieving a cumulative GPA of 2.0 or higher or through a granted SAP appeal. Credits transferred in from institutions other than SC4 will be taken into consideration. Grades from other institutions will not be taken into consideration.

Students maybe awarded using one of the following options:

- Financial Aid Probation – Student must have the ability to earn a 2.0 cumulative GPA and a 67% completion rate.

- Financial Aid Academic Plan (FAAP) – Student is actively on an academic plan and continues as long as he/she has earned a 2.0 GPA and a 75% completion rate.
- Financial Aid Academic Plan Maximum (FAAP-Max) – Students must enroll for only the classes listed on the plan. Any classes for which you register that are not listed on the plan will result in financial aid being cancelled for **all classes.** Student must earn a 2.0 GPA and a 75% completion rate for that semester.

Grades/Successful Completion/Repeats
Credit hours attempted include all grades recorded on the transcript of A, B, C, D, E, I, W, R, S, U, Z and transfer credits. Repeated courses are identified on the transcript and are considered as credit hours attempted.

Successful grades are: A, A-, B+, B, B-, C+,C, C-, D+, D, D- and S. Unsuccessful grades are: E, I, W, R, U and Z. Unsuccessful grades are considered attempted and not passed for purposes of determining satisfactory academic progress.

Financial aid is limited to one repeat of a previously passed course in which a grade of “D” or better was earned.

Audits and Credit by Exam
Classes taken for audit (with a grade of “X”) or credits earned by exam are not considered when determining financial aid eligibility.

*Financial Aid Termination means the same as Financial Aid Denial for Title IV financial aid purposes.

OMBUDSMAN FOR STUDENTS

The U.S. Department of Education provides an Office of the Ombudsman to help resolve loan disputes and problems. The following options are available for contacting the office: call toll free at (877) 557-2575, visit the website at www.ombudsman.ed.gov or write to U.S. Department of Education
FSA Ombudsman
830 First Street, NE
Fourth Floor
Washington, D.C. 20202-5144

HOUSING LISTS

You may go to www.emrha.org for a listing of housing opportunities available in the Blue Water area.

VETERANS INFORMATION

123 Acheson Technology Center (ATC)
(810) 989-5526

The college maintains and staffs an office for veteran services where veterans, dependents and selected reservists are provided information about education benefits available to them.

FEDERAL PROGRAMS
Chapter 30 − Montgomery GI Bill
Chapter 33 − Post 9/11 Montgomery GI Bill
Chapter 35 − Survivors' and Dependents' Education Benefits
Chapter 1606 − Selected Reserve, Montgomery GI Bill
Chapter 1607 − Reserve Educational Assistance Program (REAP)

Application Process
Students are encouraged to apply at the earliest possible date. Applications are available through the U.S. Department of Veterans Affairs website, www.gibill.va.gov. Electronic application (VONAPP) and paper applications are accessible for both veterans (Form 22−1990) and dependents (Form 22−5490). The Department of Veterans Affairs will provide the applicant with a Certificate of Eligibility when approved. Visit the SC4 Veterans Certifying Official, Room 123, Acheson Technology Center, after you have applied or have received your certificate of eligibility or notice of award.

Note: The VA strongly recommends that veterans and other beneficiaries submit their education benefits application online to expedite processing. You may call the VA National Education Help Line at (888) 442-4551 for assistance.

Chapter 31 − Vocational Rehabilitation
This program is available to veterans with a service-connected disability. For more information, contact the Veterans Administration Regional Office (28), Patrick V. McNamara Federal Building, 477 Michigan Avenue, Detroit, MI 48226 or call (800) 827-1000. Upon approval, deliver the Authorization and Certification of Status (Form 28−1905) to the SC4 Veterans Certifying Official, Room 123, Acheson Technology Center.

STATE OF MICHIGAN PROGRAM
Children of Veterans Tuition Grant Program
Obtain an application from the Children of Veterans Tuition Grant Program (CVTG) at www.michigan.gov/osg. Application questions should be directed to (888) 4-GRANTS or email osg@michigan.gov. Upon approval the applicant will receive a Letter of Eligibility from

the State of Michigan Department of Treasury. Deliver the Letter of Eligibility to the SC4 Veterans Certifying Official, Room 123, Acheson Technology Center.

EARNED CREDITS
If students have previously drawn educational benefits, a "Request for a Change of Place and/or Program" (Form 22−1995) must be filed. An official transcript from other colleges must be sent to SC4 for evaluation of credit as soon as possible. Benefits can be suspended if credits granted for previous training are not reported to the Veterans Administration.

PAY RATE
Monthly rates vary according to which VA program is providing the assistance and the student's course load. For more information, contact the SC4 Veterans Certifying Official, Room 123, Acheson Technology Center.

SATISFACTORY PROGRESS FOR VETERANS
Students receiving VA benefits need to understand the college's policy regarding academic probation. They must maintain a GPA equal to or better than a 2.0 cumulative grade point average ("C" average). A 2.0 GPA is required to meet graduation requirements. If the GPA falls below 2.0, students will be placed on probation with VA. Failure to raise the cumulative GPA to 2.0 within three consecutive semesters will result in termination of VA educational benefits. The college will inform the Department of Veterans Affairs and the student in writing of this fact. The student can be recertified in the future under one of two conditions: (1) the cumulative GPA is raised to 2.0 or (2) a request for resumption of educational benefits is submitted to the VA and the VA reinstates benefits based on evidence supporting the student's claim.

GUIDELINES/RESPONSIBILITIES

1. Individuals may register only for courses required to satisfy graduation requirements for specified majors.
2. VA payment is not ordinarily allowed for repeating a previously passed course.
3. Any changes in program of study, course load, address, etc., must be reported to the SC4 Veterans office.
4. If a student receiving VA benefits withdraws from a class, the student may have to repay the money received for the class unless the withdrawal was due to circumstances beyond the student's control.

STUDENT SUCCESS CENTER
ADVISING, CAREER and EMPLOYMENT SERVICES

ADVISING AND CAREER SERVICES
120 Acheson Technology Center (ATC)
(810) 989-5520 or (800) 553-2427, Ext. 5520
Fax: (810) 989-5775
careerservices@sc4.edu
Monday and Thursday 8 a.m. to 6 p.m.
Tuesday and Wednesday 8 a.m. to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

EMPLOYMENT SERVICES
120 Acheson Technology Center (ATC)
(810) 989-5515 or (800) 553-2427, Ext. 5515
Fax: (810) 989-5775
employmentservices@sc4.edu
Monday through Thursday 8 a.m. to 4:30 p.m.
Friday 9:30 a.m. to 4:30 p.m.

The Student Success Center provides students with a variety of informational and support services essential to college and employment success. The center is staffed by advising, career and employment specialists and provides comprehensive support services including: academic assessments, academic advising, career exploration, transfer planning, preparation for employment and access to employment opportunities.

APPOINTMENTS
Appointments can be scheduled in person, by telephone or online at www.sc4.edu/advising. Services are also provided on a walk-in basis, depending on the nature of the request and staff availability. Students are advised to call for current information on the walk-in and evening schedules.

SERVICES

ACADEMIC ADVISING
All degree/certificate seeking students are required to meet with a Student Success Center advisor for academic advising prior to registering for their first semester. Thereafter, academic advising and educational planning are encouraged but not required.

EDUCATIONAL PLANNING
Advisors assist students with the development of a Personal Education Plan for their career goals. Through educational planning, advisors

help students select academic programs and the courses needed for SC4 certificate and degree completion. They also help students locate and understand transfer information. Access to print and Web-based information enables students to make decisions to meet their unique career goals.

CAREER PLANNING

Student Success Center staff members assist students in making career decisions and plans that will relate their interests, abilities, values and personalities to career goals. Career assessments and print and computer-based resources are used to assess interests, identify options, explore career areas and educational choices, and access occupational information. Career planning resources include computerized career planning systems, inventories and other self-exploration programs. **Interest Inventories** are useful in assessing and describing a person's likes and dislikes. This information leads to greater self-awareness for career and life decision making. **Personality Assessments** are designed to measure a wide variety of traits and characteristics that may be related to a person's behavior and feelings. This information leads to greater self-awareness concerning the career area one may find satisfying. **Career Planning Programs** are comprehensive computer-based resources which allow users to develop personalized educational and career plans. They provide valuable information on careers, job markets and training. In addition, a Career Development (SD 110) one credit class is offered to provide in-depth career exploration for the undecided student.

STUDENT EMPLOYMENT SERVICES

The Student Success Center offers lifetime employment services including pre-employment preparation and access to job opportunities. These services are available for current and former students. Students may access the latest local and national employment opportunities through the **Web-based e-Recruiting employment system**, accessible from the college's website or the printed Job Book in Room 120, Acheson Technology Center. Other services include assistance with developing resumes, acquiring interview techniques, job search strategies and locating job shadowing opportunities. The Student Success Center also organizes career fairs, conducts job seeking workshops, schedules on-campus job interviews and offers a one credit course, Job Search and Employment (SD 130).

PERSONAL CONCERNS

The Student Success Center provides students with crisis services and assistance locating appropriate services when they have concerns that adversely affect the pursuit of their educational and career goals.

STUDENT SUCCESS SEMINARS
The Student Success Center offers a variety of non-credit free seminars designed to support students' academic, employment and career success. These free seminars provide information and strategies for coping with the demands of college enrollment and for life and career planning. Seminars are scheduled throughout the year for students and community members. For a complete list, visit www.sc4.edu/successseminars.

STUDENT DEVELOPMENT CREDIT CLASSES
The Student Success Center offers college credit classes for student development. The classes are Career Development (SD 110), Assertive Behavior (SD 120), Job Search and Employment Skills (SD 130), College Success (SD 140) and Stress Management (SD 150). A course summary for each course can be found in the course description section of the catalog under Student Development.

TRiO − STUDENT SUPPORT SERVICES

211 Main Building (MB)
(810) 989-5801
trio@sc4.edu

TRiO − Student Support Services is a federally funded program that helps students stay in college, graduate and transfer to a four-year university. The mission of TRiO is to assist students in completion of their educational goals. The program serves students who are first-generation college students (neither parent graduated from a four-year college), qualify for federal funding such as a PELL grant and/or have a documented disability.

Eligible students receive:

- Additional support services for students with disabilities
- Cultural enrichment activities
- Help applying for financial aid and scholarships
- Help with career planning, developing resumes and completing job searches
- Individualized tutoring
- One-on-one mentoring
- Personalized academic advising
- Priority registration for SC4 classes
- Specialized workshops
- Transfer planning, including visits to selected colleges/ universities

For more information, contact the TRiO office or visit www.sc4.edu/trio.

ACADEMIC SUPPORT SERVICES

LIBRARY

College Center (CC)
(810) 989-5640
Fax: (810) 989-5773
library@sc4.edu

The Library supports SC4 students and the research needs for their coursework. The Library provides a large collection of research and study materials; reference and research services; computer workstations; public printing and photocopying facilities;and dedicated study space.

HOURS OF OPERATION

During fall and winter semesters, the Library is open six days a week, Monday through Saturday, including evening hours Monday through Thursday.

Hours:

7:30 a.m. to 9 p.m.	Monday to Thursday
7:30 a.m. to 4 p.m.	Friday
8 a.m. to 4 p.m.	Saturday*

**Saturday hours of operation begin during the third week of classes in fall and winter semesters.*

Changes to the hours of operation due to end-of-semester, holidays and mid-semester breaks are posted in advance throughout the Library and provided to students through *Student Connection* and other campus communication channels.

During spring/summer sessions, the Library is closed on Saturdays.

LIBRARY COLLECTIONS

Library collections provide access to over 190,000 titles, including books, videos and periodicals. The collections include roughly one-third physical resources and two-thirds digital to provide ease-of-access from on and off-campus. Collections include:

- More than 61,000 books in the reference and circulating collections.
- Nearly 35,000 periodical titles, from scholarly journals to trade journals and popular magazines.
- Nearly 11,000 video titles, including over 3,800 DVDs and videos and over 6,700 educational videos available streaming over the Internet.

- More than 124,000 electronic resources, including nearly 90,000 e-books.
- Access to more than 30 academic research databases.

LIBRARY SERVICES

The Library offers a variety of services to ensure the success of students in their studies and research.

CIRCULATION OF MATERIALS

Books are available for loan on a three-week basis with the opportunity to renew the loan two more times in-person, over the phone or online for a total possible nine weeks of loan time. Some e-books “circulate” as downloads to notebook computers, tablet devices and e-readers for 14 days and can be renewed if more time with the resource is needed. Videos and multimedia are available for use in the Library only.

RESEARCH SEMINARS

Seminars on research skills and technology are offered in the Library. The Library also teaches programs on research and literacy skills to class sections and groups upon request. Check with Library staff to learn about upcoming seminars or to request one.

ELECTRONIC RESOURCES

Access most of the Library’s electronic resources from home with an Internet connection. Check with Library staff to learn more about how to access resources from off-campus.

INTERLIBRARY LOAN

The Library offers interlibrary loan service free of charge. This service allows the Library to obtain almost any book or article when that resource is not already part of the library’s collection. Request an interlibrary loan at the circulation or reference desks or by email at ill.request@sc4.edu.

SMALL GROUP STUDY ROOMS

Small group study rooms are available for student use. The rooms are equipped with a television monitor, a DVD/VCR combination player, and study space for up to eight people. Rooms are often available for drop-in use or can be reserved by groups of four or more. Requests can be made in the Library or by email at room.reservation@sc4.edu.

COMPUTER WORKSTATIONS

The Library offers Windows-based computer workstations with the latest version of Microsoft Office Suite and other software tools. Use of computers is governed by the college’s Acceptable Use policy on computers and network access.

WIRELESS NETWORK

The Library provides access to the college's public wireless network for those who prefer to use their own laptop or tablet. Check with Library staff for instructions.

PRINTING AND PHOTOCOPYING

The Library provides printing services from computer workstations. There are two black-and-white print stations and one full color print station. The Library also offers two photocopier stations. Print and copy jobs cost a few cents per page and require the purchase of a copy card in the Library. See Library staff for current printing and photocopying costs.

COPYRIGHT CONSULTATION

The Library serves as the copyright agency for the college. In this role, the Library helps members of the SC4 community maintain legal usage of materials within copyright law. Check with Library staff to learn more about how to obtain copyright clearance for your resource, event or other need.

REFERENCE SERVICES

The Library offers reference and research assistance through a variety of channels:

IN-PERSON REFERENCE SERVICE

Visit the reference desk in the Library.

TELEPHONE AND EMAIL REFERENCE SERVICES

Remote reference assistance is available through telephone and email. Call (810) 989-5640 and follow the menu prompts for the reference desk or email lrc@sc4.edu.

CHECK-OUT-A-LIBRARIAN RESEARCH ASSISTANCE

Set up a reference appointment with a librarian for extended help in conducting research. Provide your general topic and research question and Library reference staff will prepare reference tips and review the information with you. Request research assistance at the circulation or reference desks or by email at librarian.checkout@sc4.edu.

24/7 VIRTUAL REFERENCE SERVICE

The Library also offers reference help through online chat. A chat will be answered by a professional reference librarian 24-hours per day, seven days per week. Access this service at www.sc4.edu/library.

ACHIEVEMENT CENTER

B-100 College Center (CC)
(810) 989-5555 or (800) 553-2427, Ext. 5555
FAX: (810) 989-5579
TTY: (810) 989-5638
ac@sc4.edu

The Achievement Center provides specialized academic services to assist students so that their studies will be positive, meaningful and successful experiences. All services are provided at no charge to currently enrolled students.

Fall and winter semester hours:

8 a.m. to 9 p.m.	Monday to Thursday
9:30 a.m. to 4 p.m.	Friday
10 a.m. to 4 p.m. (testing only)	Saturday

Visit www.sc4.edu/ac for spring and summer hours.

TUTORING

SC4 students have access to tutoring services at no charge. Tutoring services provide assistance in understanding course materials.

DROP-IN TUTORING

Available regardless of course or grade on a first-come, first-served basis.

TUTORING EMPLOYMENT OPPORTUNITIES

Qualified peer and professional tutors are continuously needed to provide tutoring services. Tutors must have an accumulated minimum 3.0 GPA. Request an application for employment from the Achievement Center.

EDUCATIONAL SOFTWARE

Educational software programs are available to support courses such as biology, physical science, computer information systems, electronics, English, math, nursing, office administration, reading and social sciences.

DISABILITY AND SPECIAL SERVICES

SC4 is committed to providing equal educational and employment opportunities for individuals with disabilities, in accordance with state and federal laws and regulations, including the Americans with Disabilities Act (ADA). To ensure equality of access for students with disabilities, SC4 will provide reasonable accommodations to students

with disabilities, provided such accommodation does not fundamentally alter the nature of the program, cause undue hardship on the college, or jeopardize the health or safety of others.

An Achievement Center counselor is available to assist students experiencing academic difficulties and/or needing special support services (documentation required).

Services include:

- Braille translation
- Interpreter services
- Mobility assurance
- Note-taker services
- Reader services
- Referral services
- Specialized assistive equipment for students with physical disabilities
- Test-taking accommodations

ENGLISH AS A SECOND LANGUAGE

Support is provided for students with limited English-speaking skills.

CRISIS COUNSELING

The Achievement Center counselor is trained in providing crisis counseling and intervention to students in need. The focus is on single or recurrent problems that are overwhelming or traumatic. Crisis counseling is short-term and provides education, guidance and support, but is not a substitute for psychiatric care. Crisis counseling may involve referral to community organizations that have the resources to provide the assistance needed by the student.

TESTING SERVICES

- Admissions testing: COMPASS, HESI
- Test proctoring
    - SC4 online courses
    - CLEP
    - Other colleges and universities

MATH CENTER

100 Clara E. Mackenzie Building (CEM)
(810) 989-5701

The Math Center offers free tutoring for all math classes and also can help with individual math problems. The center is staffed by SC4 math faculty and student tutors. Help is available anytime for MTH-050, MTH-075 and MTH-102. For help with upper-level courses, call for instructor schedule.

The center offers math activities, quiet study areas and limited computer access. Students also can work with other students on math assignments.

Visit www.sc4.edu/mathcenter to view Math Center hours.

WRITING CENTER

121 Main Building (MB)
(810) 984-3881, Ext. 6223
wc@sc4.edu

The Writing Center offers tutoring sessions with student writing consultants who are able to assist in every step of the writing process.

Assistance is not limited to English classes; it is available for any class. Tutors can help with brainstorming, developing a thesis, research and citation, drafting and revising.

Visit www.sc4.edu/writingcenter to view walk-in hours. Other days and times are available by appointment. Schedule your appointment by calling (810) 984-3881, Ext. 6223, or emailing wc@sc4.edu.

CENTER FOR eLEARNING

C101 College Center (CC)
(810) 989-5525
elearning@sc4.edu

Complete details regarding online learning can be accessed at www.sc4.edu/onlinelearning.

ONLINE COURSES

Online courses provide a flexible opportunity for continuing education. Online courses are instructor led and typically follow the same semester schedule as on-ground courses, while some also are offered as short-term courses. The platform used to deliver the online courses requires unique identification for each user. Attributes of the online course include the following:

- Course materials are accessible from any Internet connection at any time.
- Interaction with fellow students happens in the online classroom, while private communication occurs with the instructor via email
- Some online courses do require campus visits for taking tests or participating in labs

ONLINE DEGREE PROGRAMS

Students seeking the convenience of online education can earn an associate degree online with campus visits required for some courses. Options include Associate in Arts, Associate in General Education, and Health Care Provider to RN Articulation Associate Degree. Students also can complete an Associate of Business – Transfer online by working with an academic advisor to determine the right selection of courses.

WEB099 − INTRODUCTION TO ONLINE COURSES

Because online learning is different from the traditional classroom, choosing to take an online course should be an informed decision. WEB099, Introduction to Online Courses, prepares students to become online learners at SC4. It is a free online tutorial that is scheduled as an open-entry course estimated to take three to five hours to complete. Enrollment and completion can occur at any time during a semester. The course shows how the online classroom looks and works, while providing practice on actions that may be required in the online course, such as submitting assignments with attachments, posting discussion board messages and emailing the instructor. Because this introduction is critical to the success of the online learner, completing WEB099 with an “S” grade is a requirement prior to registering for a student’s first online course.

TECHNOLOGY REQUIREMENTS

Typical courses will display best at a screen resolution of 1024 x 768 pixels. The speed of your computer and the amount of system and video memory are important. A recent (less than three years old) PC or Macintosh with at least 512 MB (1 GB preferred) will significantly improve your interactive experience. Other technology requirements include:

- Reliable Internet access (dial-up supported, but Cable or DSL (Broadband) preferred)
- Internet Explorer (Version 7 or later) as browser with Java and cookies enabled and pop-up blocking disabled for this site
- Updated anti-virus software (Google 'AVG Free' is a free version if needed)
- Microsoft Word (Office 2000 or later). Other Office software may be required depending on the course.
- CD-ROM drive and sound card (with speakers or headphones) and specialized software as required for some courses

OTHER SUPPORT SERVICES

BACKSTREET CAFÉ AND BACKSTREET JAVA

College Center Atrium and Café
(810) 320-1030
Backstreet Café and Backstreet Java offers light breakfasts, full café lunches, snacks and beverages for between classes. Backstreet Java hours are 7:45 to 10:45 a.m. and 2:45 to 6 p.m. Backstreet Café lunch hours are 10:45 a.m. to 2:45 p.m. Both are open Monday through Thursday during the fall and winter semesters. Visit www.sc4.edu/cafe for details.

CHILD CARE CENTER

Citizens First Michigan Technical Education Center
(810) 989-5673
The Child Care Center at SC4 is designed to provide quality child care for college students and staff. The center is operated by the Community Action Agency of St. Clair County. Hours are 7 a.m. to 6 p.m. Monday through Friday.

COLLEGE BOOKSTORE

125 Acheson Technology Center (ATC)
(810) 989-5725 or (810) 989-5728
The College Bookstore carries required books and supplies for classes, as well as clothing and convenience items. New and used books are available.

EMERGENCY MESSAGES TO STUDENTS

St. Clair County Community College will attempt to deliver to students EMERGENCY messages only. Call (810) 989-5560 or the Campus Patrol office at (810) 989-5549.

HEALTH INSURANCE

Students may obtain an accident and sickness insurance policy for a nominal premium. The college is not responsible for any coverage and/or claims. Call (810) 989-5560 to request a brochure.

PARKING

Free student parking is available on a first-come, first-served basis in the lot adjacent to the College Center. The entire lot at the Main Building is reserved for faculty and staff. All parking lots are lined and vehicles are to be parked within the designated spaces.

The college assumes no liability for vehicles or contents in vehicles parked in or using college lots. People parking illegally (including fire lanes, walking paths, lawn and unauthorized handicapped space usage) will be ticketed or towed by college Campus Patrol personnel or city, county or state police agencies.

Overflow parking often is available in the McMorran Place civic center parking lots east of campus. Depending on the time/day, a small fee may be charged.

VOTER REGISTRATION

Forms to register for voting are available in the College Bookstore, One-stop Student Services office and Library. Forms also may be downloaded at www.michigan.gov/sos.

WAVE – SC4 ONLINE STUDENT SYSTEM

Students are encouraged to use the SC4 WAVE, which may be accessed online at www.sc4.edu/wave. The WAVE provides a wide variety of services to students in an easy-to-use online format. Examples of the services available on the WAVE include:

- Searching for classes
- Registration and payment
- Access to grades
- Academic transcripts
- Progress to degree/certificate completion (degree audit)
- Financial aid awarding status

Questions related to the WAVE may be directed to the One-stop Student Services office at (810) 989-5500 or enrollment@sc4.edu.

Use of the WAVE must be in accordance with the college's technology Acceptable Use Policy, which can be found at www.sc4.edu/acceptableuse.

STUDENT ATHLETICS AND ACTIVITIES
(CLUBS AND ORGANIZATIONS)

ATHLETICS
22 and 119 North Building (NB)
(810) 989-5670 or (810) 989-5671
SC4 has an intercollegiate athletic program and is a member of the National Junior College Athletic Association in men's and women's basketball, men's baseball, women's softball, men's golf and women's volleyball. Contact the Athletic Department for additional information.

COLLEGE RADIO STATION
22 and 21 Fine Arts Building (FAB)
(810) 989-5564 or (810) 989-5646
SC4 operates radio station WSGR (91.3 FM) 24 hours a day year round.

FITNESS CENTER / GYM USAGE
22 and 119 North Building (NB)
The College Gym and Fitness Center are open for student use. Fitness Center student hours are 8 a.m. to 10 p.m. Monday through Friday. Students must obtain an access card to enter the Fitness Center. Access cards are available in the athletic office, Room 22, North Building for athletic office hours and open gym hours, call (810) 989-5670 or visit www.sc4.edu/athletics.

STUDENT CLUBS
123 Acheson Technology Center (ATC)
(810) 989-5552
Student clubs provide opportunities for leadership, expanded interests and social life. Student Government is made up of a board of executive officers and a representative from each recognized club on campus. For descriptions of each club, visit www.sc4.edu/clubs. The following is a typical list of clubs that receive appropriations from Student Government:

- Alternative Energy and Engineering Club
- Campus Progressives
- Computer Information Security Club
- Criminal Justice Club
- Drama Club
- Environmental Concerns Organization
- *Erie Square Gazette*
- Gay-Straight Alliance
- Global Awareness Club
- Health and Wellness Club

- InterVarsity Christian Fellowship
- Marketing and Management Club
- Music Club
- Newman Club
- Phi Theta Kappa
- Sigma Alpha Pi
- Student Government
- Women's Soccer Club
- WSGR Radio 91.3 FM
- Zombie Defense Council

STUDENT GOVERNMENT

110 Main Building (MB)
(810) 989-5737

Student Government promotes and sponsors a wide range of activities throughout the academic year and serves as the formal spokes group for students. Membership to Student Government is by election. However, all currently enrolled students, excluding guest students, may participate in some segment of Student Government. All students are invited to attend the monthly all-club meetings.

PETITIONS TO RUN FOR ELECTION TO STUDENT GOVERNMENT

Student Government officer positions are president, vice president, treasurer and secretary. A minimum 2.0 grade point average is required to hold office and officers must be enrolled in a minimum of 9 credit hours each semester. Students must file petitions with 40 valid signatures as specified by the Student Government Constitution. The deadline for filing petitions will be posted. Petitions may be picked up in Room 123, Acheson Technology Center, and must be returned by the date specified. The Student Government officers are elected during the winter semester, and take office the Monday following the end of the winter semester. Guest students (high school and college) are not permitted to run for Student Government office.

STUDENT LITERARY MAGAZINE

Visual and Performing Arts Department
10 Fine Arts Building (FAB)
(810) 989-5709
or
Communications Department
319 Main Building (MB)
(810) 989-5578

Patterns is an award-winning literary magazine of student writing and art that is published annually and features the winning entries in the college's writing and art competition.

STUDENT NEWSPAPER

122 Main Building (MB)
(810) 989-5584

The *Erie Square Gazette* is published every two weeks during the fall and winter semesters.

CAMPUS SECURITY AND CAMPUS PATROL

CAMPUS PATROL OFFICE
109A A.J. Theisen Building (AJT)
(810) 989-5757 or

CAMPUS SECURITY DIRECTOR
(810) 989-5549

ACCIDENTS AND HEALTH EMERGENCIES ON CAMPUS

Report all accidents occurring on the college campus that cause injury to students. Accidents causing serious injury are to be treated as emergencies. When a student is injured or becomes ill while on campus, first call 911, then Campus Patrol who will assist until necessary aid arrives. A student encountering a minor accident, damage to their vehicle, or lost or stolen items on campus may elect to have Campus Patrol make an incident report. Remember, **if there is any doubt** about the severity of the occurrence, call 911.

CAMPUS CRIME STATISTICS

Detailed information is available by visiting www.sc4.edu/securityreport.

SECURITY ESCORTS

Anyone uncomfortable with walking to their vehicle or to another building may request an escort from Campus Patrol. It is advised that you call ahead of time to make necessary arrangements.

LOST AND FOUND

109A A.J. Theisen Building (AJT)
(810) 989-5757

All lost and found property is centrally located in the Campus Patrol office located in Room 90, A.J. Theisen Building.

PARKING ON CAMPUS

Students shall ensure their vehicle is legally parked on the campus at all times. Failure to do so may result in the vehicle being ticketed and/or towed at owner's expense. See section "Other Support Services," in this catalog for additional parking information.

SEX OFFENDER REGISTRATION

Notice is hereby given to the campus community that persons seeking information concerning registered sex offenders should contact the St. Clair County Sheriff Department or the Sheriff Department for any county where off-campus programs are offered.

STUDENT ASSISTANCE FROM CAMPUS PATROL

Campus Patrol can assist faculty, staff and students experiencing trouble with some vehicle problems such as:

Dead or low car battery	Frozen door locks
Low or flat tires	Keys left in locked vehicle
Out of gas	Directions around campus

STUDENT IDENTIFICATION

When applicable and/or upon request by an appropriate member of the college staff, persons requested to do so shall present acceptable identification (i.e. driver's license, Michigan ID card).

Failure to produce ID as requested may result in student discipline.

STUDENT CODE OF CONDUCT

Enrollment in St. Clair County Community College implies acceptance of certain standards of student conduct and a willingness to abide by those standards. College standards of conduct are established to maintain conditions under which individuals, with respect for the rights and well-being of others, can participate effectively in a common educational enterprise and well-ordered collegiate community.

The college adopts the following Student Code of Conduct hereby referred to as the Code and prohibits all persons from engaging or participating in any of the practices or behaviors listed below. Specific examples are used by way of illustration and are not meant to limit the practices or behaviors that may be deemed to violate the college's standards of conduct.

Violence of any kind will not be tolerated on college premises or at college-sponsored activities. Any student, group or organization found to have committed misconduct is subject to disciplinary action and to the sanctions outlined in the Code. Attempts to commit any of these acts of misconduct are included in the scope of these definitions.

The following are examples of college expectations and misconduct under the Code subject to disciplinary action up to and including dismissal and expulsion.

Student Code of Conduct violations (except as noted) should be reported to the college official in charge and the Dean of Students. If warranted by nature and severity of the offense, Campus Security and/or local law enforcement should be contacted.

CODE

APPROPRIATE ATTIRE

Dress, grooming and personal cleanliness standards contribute to the ambiance and character of the college. College students are required to adhere to prevailing standards of good judgment in their choice of attire and are expected to conduct themselves in a way that best represents themselves and the college.

APPROPRIATE CONDUCT

Students are expected to act responsibly and to conduct themselves in the classroom and on the campus in a manner that does not disrupt the learning process. A climate of mutual respect and courtesy should exist

between faculty, staff and students. However, students must recognize that instructors and staff, by virtue of their positions, must exert a measure of authority in the classroom and other campus areas. Students should respect this authority. Disciplinary problems may result in a student being withdrawn from class and, in extreme cases, dismissed from the college.

DISORDERLY CONDUCT

Disorderly conduct is prohibited and is defined as acting in a manner to annoy, disturb, interfere with, obstruct or be offensive to others, including but not limited to shouting or making excessive noise either inside or outside a building to the annoyance or disturbance of others; verbally abusing college officials (either on the phone or in person) acting in performance of their duties; acting in a lewd or indecent manner; making threats; harassing others.

ASSAULT AND THREATS

Assault and threats are prohibited, and include, but are not limited to, the following: committing physical abuse and/or battery or other behavior resulting in harm to any person; placing a person in fear of imminent physical danger or injury; making threats or engaging in behavior to harm self or others.

CLASSROOM AND LABORATORY SAFETY VIOLATIONS

Students must abide by classroom safety regulations. Safety glasses, headgear, aprons, lab coats, earplugs and other appropriate safety equipment may be needed by all students in specific courses.

DISCRIMINATION AND HARASSMENT

Discrimination and harassment are strictly forbidden on campus and in all college affiliated activities. Discrimination and harassment include inappropriate and offensive conduct against any person, student or staff member on the basis of race, color, religion, gender, national origin, creed, ancestry, familial status, age, disability, marital status, height, weight, sexual orientation or other protected status. Modes of contact or communication include, but are not limited to, in person, in writing,through telephone, electronic mail or instant messaging.

Any form of harassment is unacceptable at St. Clair County Community College, and complaints or charges will be followed through with appropriate action. SC4 employees and students are individually responsible to ensure such harassment does not occur. Concerns should be directed to the Human Resources office, Room 203, Main Building. See details and complaint form online at www.sc4.edu/hr.

SEXUAL HARASSMENT

Sexual harassment or related retaliation is strictly prohibited on campus and in college affiliated activities. Prohibited conduct includes, but is not limited to, unwelcome verbal or physical acts that are sexual in nature, unrelated to the content or context, and sufficiently severe and/or pervasive as to objectively either (a) have the effect of unreasonably interfering with an individual's work or academic performance, or (b) create an intimidating, hostile or offensive learning or working environment. Sexual harassment includes, but is not limited to, sexually based unwelcome verbal remarks or physical advances, request for sexual favors, inappropriate and unwelcome contact, and explicitly or implicitly stating that submission or rejection of sexual acts or advances will be a factor in one's employment, participation or evaluation within the College and/or its activities.

Any form of harassment is unacceptable at St. Clair County Community College, and complaints or charges will be followed through with appropriate action. SC4 employees and students are individually responsible to ensure such harassment does not occur. Concerns should be directed to the Human Resources Office, Room 203, Main Building. See details and complaint form online at www.sc4.edu/hr.

DISHONESTY – ACADEMIC

The college considers academic honesty to be essential to all academic performance. Instances of academic dishonesty will be treated as serious offenses of the Student Code of Conduct. Students involved in activities such as cheating and/or plagiarism will be subject to disciplinary action up to and including dismissal.

- **Definition of plagiarism:** Plagiarism is the appropriation of language, thoughts or ideas of another author and claiming that as one's own. Plagiarism is work not produced by the student, or work that does not credit borrowings from the original source(s).
- **Definition of cheating:** Cheating can be, but is not limited to, a student using electronic technology, notes or other written materials not permitted by the instructor; looking at other students' papers without the instructor's permission; requesting answers from other students; or working with other students when independent work is required. Situations where cheating may occur are during tests, exams, quizzes or other similar methods of evaluation.

When the instructor has sufficient evidence of cheating or plagiarism, the instructor may impose disciplinary actions such as assigning a failing grade to the student's assignment, quiz, paper or test.

If the plagiarism or cheating involves major course work such as plagiarizing a research paper or cheating on a final exam, the instructor may fail the student in the course.

DISHONESTY − NON-ACADEMIC

Non-academic dishonesty includes, but is not limited to:

- Furnishing false information to the college or college personnel, including Campus Security.
- Furnishing false information at disciplinary proceedings.
- Forgery; unauthorized alteration or unauthorized use of any college documents, records or identification cards, including computer records; and misuse of computer facilities and electronic mailing systems.
- Giving false or incomplete replies to questions, verbal or written, on applications, forms or other documents required by properly authorized representatives of the college.

DRUG AND ALCOHOL VIOLATION

Intoxication; drug−altered states; and the possession, use or sale of alcohol, illegal drugs or related paraphernalia; are strictly forbidden on campus or at or as part of any college affiliated activity. This prohibition includes, but is not limited to: possession of paraphernalia containing drug residue; and manufacture or distribution of illegal drugs or controlled substances. If students are experiencing problems with drugs and/or alcohol, they should contact the Student Success Center, Room 120, Acheson Technology Center, or call (810) 989-5520. The College Drug Prevention Program is detailed on the SC4 website.

FIRE/FALSE ALARM/REPORT

Knowingly or negligently causing or attempting to cause a fire in a college building; and initiating or causing to be initiated any false alarm/report, warning, or threat of fire, explosion or other emergency is prohibited.

GAMBLING

It is the policy of the college to prohibit gambling on the college campus. Except as hereinafter provided, the college prohibits the sale, solicitation or promotion of a game of chance, including, but not limited to lotteries, raffles, bingo or similar other activities on college premises or which use the college's name in any way. The Board authorizes the President of the college to waive this prohibition for such fundraising activities which support student services or scholarships and which comply with any applicable laws and license requirements. The President may establish procedures and guidelines for applying for this waiver.

GIVING FALSE INFORMATION

No person shall give false or incomplete replies to questions, verbal or written, on applications, forms or other documents required by properly authorized representatives of the college.

HAZING

Any act of hazing is prohibited. Hazing is defined as any action taken or situation created intentionally, with or without consent, whether on or off campus, to produce mental or physical discomfort, embarrassment, harassment or ridicule.

INTERFERING WITH EVENTS

Interfering with any normal college or college−sponsored events is prohibited and includes, but is not limited to, disruption of studying, teaching, research, administration, and fire, police or emergency services.

LEWD BEHAVIOR

Behavior that is lewd or indecent is prohibited. Such behavior is defined in consideration of the general standards of acceptable behavior and includes, but is not limited to, the following: obscene remarks, gestures or other communications; exposing oneself in an indecent manner; entering restrooms against the gender designation; viewing pornographic images; or engaging in sexual activities on the campus.

MISUSE, THEFT OF FIRE SAFETY OR EMERGENCY EQUIPMENT

Misuse, tampering, theft or damage to fire safety equipment such as fire extinguishers, exit signs, first aid kits, automated external defibrillators (AEDs) or other emergency supplies on campus is prohibited.

NON-COMPLIANCE

Failure to comply with reasonable directions of college officials, including college security officers, faculty and staff acting in performance of their duties is prohibited. Directives to cooperate in the administration of the Code including those to appear and give testimony at a college disciplinary proceeding, as well as directives to produce identification are included in the scope of this provision.

REGULATION VIOLATION

Any violation of other published regulations including, but not limited to, SC4 policies as listed in this catalog is considered a Code violation.

SANCTION VIOLATION
Violating the terms of any disciplinary sanction imposed in accordance with the Code is a Code violation.

SEXUAL ASSAULT
Inflicting any sexual invasion/assault upon any person without that person's consent is prohibited. "Consent" requires actual words or conduct indicating a freely-given agreement to have sexual intercourse, or to participate in sexual activities. The college community should be aware that, depending on the particular circumstances, previous sexual relationships or current relationship between the persons involved, or silence, or lack of protest do not necessarily constitute consent. Further, the degree of impairment of a person's ability to give or withhold consent (including, but not limited to, incapacity or helplessness caused by alcohol or any other drugs) may be introduced as pertinent information at any college disciplinary hearing.

SMOKING ON CAMPUS
Smoking is prohibited in all campus buildings, vehicles and outside areas of the campus where non-smokers cannot avoid exposure to smoke.

Specifically, smoking is prohibited up to 20 feet outside any enclosed area to ensure that secondhand smoke does not enter the area through entrances, windows, ventilation systems or any other means.

SOLICITATION
In order to provide an environment that is conducive to teaching and learning, it has been determined by SC4 to prohibit outside persons from operating or distributing materials or items on the college campus. Any problems should be reported to Campus Patrol. Specifically:

1. Selling, soliciting and advertising are prohibited unless an exception has been authorized by the Office of the Vice President for Administrative Services.
2. Distribution of handbills on vehicles on college property is prohibited.

TECHNOLOGY

Computers and Internet Services – Acceptable Use Policy

2012-13

St. Clair County Community College provides computer, Internet and email services to support research and education to fulfill the mission of the college. These unique resources enrich the learning and instructional process and foster opportunities for collaborative work among college students and staff.

Privileges: Access to the college's computer services, including the Internet, is a privilege granted to students, faculty, staff and the public. Individual users, **including public patrons,** are to act responsibly, respect the rights of other users, and respect the integrity of the systems and related physical resources. **The college reserves the right to limit, restrict or extend computing privileges and access to its information resources.**Users and providers inherit privileges and obligations defined by several authorities:

- Law (such as international copyright law, the U.S. Constitution, federal communications regulations, federal educational regulations and Michigan laws)
- College policies (such as policies on plagiarism and harassment)
- Service-provider requirements (typically specifying addresses, protocols, quotas and other technical standards)
- Contracts (including licenses, warranties, service level agreements, memoranda of understanding and agreements with telecommunications services)

Inappropriate use will result in denial or cancellation of that privilege. St. Clair County Community College reserves the right to monitor Internet use and determine if specific uses are consistent with the acceptable use practices. The college further reserves the right to deny access to prevent unauthorized or unacceptable activity, and could involve disciplinary action.

Uses: Faculty, staff and students may use the college's computing resources only for purposes related to their studies, their responsibilities for providing instruction, the discharge of their duties as employees, their official business with the college, and other college-sanctioned or authorized activities. Public users are expected to use the computers for research and educational pursuits.

Restrictions: Use of the Internet for viewing, sending or retrieving any of the following are prohibited:

- Pornographic material or inappropriate text files in violation of Michigan criminal laws, including, but not limited to, Michigan obscenity laws MCLA 752.361-752.374 and other Michigan statutes and cases concerning obscenity
- Libel or slander
- Deliberately wasting or overloading computing resources, such as printing too many copies of a document
- Fraud or misrepresentation
- Commercial or for-profit purposes
- Games or gambling
- Personal and private enterprise
- Personal advertisement or political lobbying
- The modification or misrepresentation of files, data and/or passwords belonging to others
- Use of the college's trademarks, logos, insignia or copyrights without prior approval
- Development or use of unapproved mailing lists
- Academic dishonesty, including plagiarism
- Violation of software license agreements
- Actions that would destroy, modify or abuse hardware and software
- Infiltration of a computer or computing system for any reason
- Forged electronic mail to make it appear as though it originated from a different person
- Electronic mail that is abusive, threatening, or for sexual, ethnic, religious, minority or other forms of harassment
- Material that is posted or sent that is contrary to the mission or values of the college
- Electronic mail that menaces or harasses an individual or individuals

Such actions include, but are not limited to:

- Sending or forwarding chain letters or email that uses a pyramid scheme to distribute communications to an exponentially growing collection of recipients
- Deliberately flooding a user's mailbox with automatically generated mail
- Sending mail that is deliberately designed to interfere with proper mail delivery or access
- Other acts forbidden by federal or state law
- Attempting, successfully or not, to gain access to another person's email files
- Intentional distribution of computer viruses
- Anything contrary to the college's board policy

All users are to abide by the 1976 United States Copyright Law and the Digital Millennium Copyright Act when using the Internet. Users must respect the legal protection applied to programs, data, photographs, music, written documents and other material as provided by copyright, trademark, patent, licensure and other proprietary rights mechanisms.

Peer-to-peer (P2P) file sharing applications allow network users to download and share audio, video and picture files with each other for legitimate academic endeavors. Use of P2P file sharing applications for the unauthorized acquisition or distribution of copyrighted or licensed material by SC4 network users is prohibited on any SC4 college computer or the college's network and may subject a student to civil and criminal liabilities.

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or "statutory" damages affixed at not less than $750 and not more than $30,000 per work infringed. For "willful" infringement, a court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement also can result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense.

There are a number of legal alternatives to illegal downloading or otherwise acquiring copyrighted material. For a listing of these alternatives, visit www.campusdownloading.com.

The college recognizes that electronic communications and computer resources are no different than any other form of communication or resource available at the college. Users of this medium are bound by but not limited to:

- Federal, state and local laws
- Compliance with all college policies regarding sexual, racial and other forms of harassment
- Contractual obligations
- All policies of the Board of Trustees

Alleged violations will be processed according to college policies and procedures.

Misuse of computing, networking or information resources may result in the loss of computing and/or network access. Additionally, misuse can be prosecuted under applicable statutes. Users may be held accountable for their conduct under any applicable college policies, procedures or employee contracts. Illegal production of software and other intellectual property protected by U.S. copyright law is subject to civil damages and criminal punishment including fines and imprisonment.

The college disclaims liability due to losses due to technology failures, due to intruders (viruses, worms, hackers, etc.) or due to freaks of nature.

Users should use all available methods to protect their files, including the frequent changing of their passwords, encryption of data and use of available campus network storage.

The college makes every attempt to maximize security of its computer systems. In the event that data have been corrupted as a result of intrusion, the college's Office of Information Technology should be notified immediately. Every reasonable attempt will be made to restore files to their status prior to intrusion; HOWEVER, THE OFFICE OF INFORMATION TECHNOLOGY CANNOT GUARANTEE FULL RESTORATION.

THEFT OR DAMAGE TO PROPERTY

No person or persons shall steal or damage property belonging to another person, organization or institution. This includes tampering with coin operated machines. Violators may be handled by the local police, the college disciplinary process, or both.

- **Theft:** Theft of property or of services, or knowing possession of stolen property.
- **Destruction of Property:** Destroying or damaging college property, such as library holdings or the property of others.

UNAUTHORIZED ACCESS OR USE OF COLLEGE FACILITIES

Students and members of the public are not allowed in campus buildings or facilities after the building has been closed and locked to student and public access. Access to locked buildings requires official permission from an authorized college representative and notification of Campus Patrol. Students in secured buildings after closing must be under the supervision of an authorized college official such as an official club advisor, coach, faculty member or appropriate staff member.

UNAUTHORIZED USE OF THE COLLEGE'S NAME

Any unauthorized commercial use of the college's name, logo or other representation, or undertaking any unauthorized action in the name of the college are prohibited.

VIOLATION OF LAW

Violation of federal and/or local law, including, but not limited to, possession of any falsified identification or the manufacture, sale or distribution of local, state or federal identification.

WEAPON/EXPLOSIVE VIOLATION

The use, possession, storage or bringing into a building or class of any firearms, ammunition, knives, other weapons or objects that could be construed as weapons is strictly forbidden. Items that pose a potential hazard to the safety or health of others (such as explosives in any form) are also prohibited.

SANCTIONS

The college's policy is directed toward imposing more severe disciplinary sanctions based on the nature of the case. The college seeks to preserve flexibility in the imposition of sanctions so that each student or group offender is afforded the greatest possibility for appropriate and just treatment. Significant mitigating or aggravating factors shall be considered, which may include the current demeanor and the presence or lack of a disciplinary or criminal record of the offender, as well as the nature of the offense and the extent of any damage, injury or harm resulting from it.

Sanctions may include:

Verbal Warning − Reported verbal reprimand.

Censure − An official written reprimand for violation of specified regulations, including a warning that continuation or repetition of prohibited conduct will be cause for disciplinary action.

Disciplinary Probation −The college may limit and /or monitor student participation in academic, privileged or extracurricular activities for a specified period of time. Violation of the terms of disciplinary probation may result in suspension or expulsion from the college.

Suspension − Exclusion from classes and other privileges or activities, including access to college premises or college−sponsored activities off campus, as set forth in the notice of suspension, for a specified period of time. Any student who is suspended shall not be entitled to any tuition or fee refund and is barred from college premises in accordance with the suspension.

Expulsion − Termination of student status and exclusion from college privileges and activities, including access to college premises or college− sponsored activities off campus, in perpetuity. Any student who is expelled shall not be entitled to any tuition or fee refund and is barred from college premises.

Restitution − Repayment to the college or to an affected party for damages, loss or injury resulting from a violation of the Code.

Other Sanctions − Other sanctions may be imposed instead of or in addition to those specified above. For example, students may be subject to restrictions upon or denials for college parking privileges for violations involving the use or registration of motor vehicles on campus. Service projects may also be assigned. Students may be directed to have no contact with other students and/or may be forbidden to access specified areas of campus.

DUE PROCESS

The Due Process system defines the procedure to be applied to instances in which a student charged with noncompliance with college rules and regulations (Student Code of Conduct) objects to the discipline decision rendered by a college official. The complete procedure is available in the Student Success Center, Room 124, Acheson Technology Center and online at www.sc4.edu/consumerinformation.

OTHER POLICIES

CHILDREN ON CAMPUS

In order to provide a friendly and safe campus while maintaining a learning environment for SC4 students and a disruption-free workplace for our employees, students will not bring any child with them to class. In order to meet an emergency situation, the instructor can approve a temporary exception to this policy. Exceptions may also be made for SC4-sponsored events or classes that specifically suggest bringing a child. However, under no circumstances are children on campus to be left unattended.

CLASSROOM AND LABORATORY SAFETY REGULATIONS

Students must abide by classroom safety regulations. Safety glasses, headgear, aprons, lab coats, earplugs and other appropriate safety equipment may be needed by all students in specific courses.

CONCESSION RIGHTS

The college retains all concession rights. Nothing is to be sold on the premises without written permission from the college.

GRADE APPEAL PROCESS

Any appeal for a change of grade, other than a final grade, must be initiated in the semester during which the student is enrolled in the course. **Appeals of a final grade for the semester must be made prior to the last day of classes of the subsequent semester with the option (student) of excluding spring and summer sessions**. There will be no formal grade appeals during the week of final exams or during semester breaks. Grade appeals occurring during the spring and summer sessions will adhere to the process with time lines to be established by the Dean of Students with reasonable flexibility as needed. The only grounds for a student grade appeal shall be as follows:

1. The grade is allegedly based on an error in calculation.
2. The grade assigned allegedly did not follow the grading criteria as stated in the course syllabus.

It shall be the responsibility of the student to prove that the grade is incorrect or unjustified. A student wishing to file a grade appeal begins by contacting the Dean of Students for information. Procedures for the formal appeal are available in Room 208, Main Building, and online on the SC4 website (under Student Grade Appeal Process) at www.sc4.edu/consumerinformation.

PETS/ANIMALS ON CAMPUS

Animals, with the exception of those required for persons who are disabled (i.e., seeing eye/service dogs), are prohibited from college buildings.

POSTING OF SIGNS/FLIERS

SC4 internal announcements may be posted on bulletin boards and tack strips which are located throughout the campus. These bulletin boards and tack strips are specifically allocated for internally generated information related to campus events and activities such as registration, Student Services, Student Government, clubs and organizations, and departments. Student and community postings may only be posted on the bulletin boards labeled “Student/Community Postings” located in the Acheson Technology Center Building, across from Room 124. The board is for posting items for sale, special event information, apartment rentals, community events, etc. Note the following guidelines for all bulletin board and tack strip usage:

- Boards will be cleared of all materials at least once per month.
- Internal postings must be proof read by appropriate supervisor.
- Inappropriate items will be removed.
- Do not use staples to attach fliers.
- Do not tape fliers on walls or windows.
- Fliers are not allowed to be posted on vehicles in the parking lots.
- Information (handbills, fliers, announcements, etc.) that are not part of an approved organization event, shall not be distributed on campus or at events without the written consent of the Vice President of Administrative Services.

STUDENT COMPLAINT PROCESS

The following guidelines have been established to provide students at St. Clair County Community College with a process for resolving concerns related to the academic environment and/or support services. When a concern arises that is covered by College Policy, including sexual harassment, racial or sex discrimination, or those arising under the Americans with Disabilities Act, the issue should be referred to the Office of Human Resources. All others will be handled in the following manner:

Complaint Process

1. The student will meet with the faculty or staff member involved to attempt to resolve the concern.
2. If a satisfactory resolution has not been reached, the student has the option to consult with the appropriate department chair or supervisor.

3. If the issue has not been satisfactorily resolved with the department chair or supervisor, the student has the option to meet with the next appropriate supervisor for final resolution. Academic environment matters should be addressed to the Vice President of Academic Services and other matters to the Dean of Instruction.

The student must provide specific documentation of the resolution efforts and to support issues and concerns related to the complaint.

WEATHER, SEVERE CLOSINGS

If the college closes because of severe weather, announcements will be made as early as possible.

The Port Huron campus may close for day classes only, night classes only, or for both day and night classes. Day classes are defined as classes that begin between 8 a.m. and 5:30 p.m. Night classes are defined as classes that begin between 6 and 10 p.m. (Note: If the college is closed for day classes, but open for night classes, the Achievement Center, College Bookstore, Library and student support services offices will remain closed for the evening.)

The Port Huron campus also may close early at any point in the day or evening.

Off-campus centers make independent decisions about closing. Whether they are open or closed is not related to if the Port Huron campus is open or closed.

To ensure you are getting accurate information, check the front page of the college website (www.sc4.edu), listen to the voicemail message on the college's main switchboard at (810) 984-3881 or the class cancellation hotline at (810) 989-5770, or login from home and check your SC4 student email account. Please note: Cancellations by the instructor for individual classes will be reported only on the class cancellation hotline at (810) 989-5770, at www.sc4.edu/cancellations and through other methods the instructor chooses.

Text alert messages available: You may sign up to get text alert messages about closings delivered to your cellular phone or other wireless device. Sign up by logging in to the college's online class registration system at www.sc4.edu/wave. Alerts will arrive labeled from "SC4 alerts."

While details about closings also will be reported by local newspapers, radio and television stations, and their websites, the only information the college can guarantee the accuracy of for SC4 closings will be on the college website, switchboard, class cancellation hotline, email and text alert messages.

Specifically for early closings: If the Port Huron campus closes early at any point in the day or evening, Campus Patrol will notify classes in session about the closing. Because of the possibility of closing early, students should monitor the various communications listed above throughout the day.

Because SC4 is not in a busing situation, the college's decision on closing is not related to decisions to close by any K-12 school districts.

If the college must close for severe weather during finals week, special announcements will be made regarding final exams.

WORKS PRODUCED BY STUDENTS

Students have a right to their own creative work. After the work has been reviewed, corrected, evaluated or graded, the work is to be returned to the student. Except for classroom and instructional purposes, no one may publish, display, perform, record, transmit or otherwise use a student's work without his/her permission. However, if a student submits a work for publication, display or performance to any college activity, the student thereby grants the college the right to edit, publish, display, perform, record and transmit the work.

St. Clair County
Community College

COURSE DESCRIPTIONS

COURSE DESCRIPTIONS

Course descriptions menu

READING A COURSE DESCRIPTION

At the bottom of the course descriptions, students will see a pattern such as 3 credits, plus 1 contact hour = 2 lecture, 2 laboratory, OR 4 credits = 4 lecture/laboratory. The numbers will change based on the individual course. **Tuition is charged by the contact hour.**

Some course descriptions contain two-letter codes indicating that they meet certain general education competencies. The competencies, along with their codes, are listed below:

Computer Literacy = CL
Critical Thinking = CT
Global Awareness = GA
Government and the Political Process = GP
Mathematics = MA
Oral Communication = OC
Writing = WR

For some courses a prerequisite course or assessment score is required prior to registration. Students who believe that the prerequisite was met through previous college work or work experience may ask the course instructor for permission to waive the prerequisite. It is up to the student to provide the evidence for this waiver request.

Students placing into three developmental education courses (RD 050 Introduction to College Reading I, ENG 050 Basic
Skills for College Writing and MTH 050 Basic Mathematics) are required to successfully complete all three courses before advancing to coursework in other disciplines.

Students placing into RD 050 Introduction to College Reading I are required to take the course their first semester. RD 050 is considered a co-requisite to any course in the college catalog.

PREREQUISITE WAIVERS
Any course prerequisite may be waived by the permission of the instructor. Student must contact the instructor for approval.

DIRECTED STUDY
Directed Study is intended as an enrichment opportunity for the student. It is designed for topics not covered in any other course in the catalog and may take the form of a project or research. The interested student may obtain the appropriate form from the instructor or department chair.

INDEPENDENT STUDY
Any college course described in the catalog may be taken as independent study if there are unusual and extenuating circumstances. However, the student must initiate acceptance and approval for supervision by an instructor and obtain the appropriate form from the instructor or department chair.

SELECTED TOPICS
All disciplines have a course as follows with the acronym for each discipline − 195 Selected Topics − a course that offers an intensive investigation of one or more topics of current interest. Topics are selected by discipline. Interested students should inform the instructor of their interest at the earliest possible date. Special requirements may be necessary. 1 to 5 credits = 1 to 5 lecture and/or laboratory.

CURRENTLY INACTIVE COURSES
These courses may be offered in the future. If students are interested in having a currently inactive course listed in the fall, winter, spring or summer schedule, contact the department chair or an instructor in the appropriate area.

Inactive classes are listed at the end of the course descriptions.

ACCOUNTING
Business Administration Department (810) 989-5575

ACCT 189 College Accounting. This course emphasizes bookkeeping and accounting procedures utilized by sole proprietors in the service and merchandising industries. Focus is on the accounting cycle, double-entry bookkeeping, payroll and basic current and long-term assets and current liabilities. Preparation of worksheets and basic financial statements is studied. This course provides an introduction to accounting and will prepare students for ACCT 211. This course is highly recommended for students with no previous exposure, education or experience in accounting or business.
Prerequisite: None
3 credits = 3 lecture

ACCT 192 Computerized Payroll Accounting. This course emphasizes the laws that affect payroll and human resource administration and the application of those laws to the processing of payroll. This course provides an in-depth study of the processing of and accounting for payroll transactions in a computerized environment.
Prerequisite: ACCT 189
3 credits = 3 lecture

ACCT 211 Principles of Accounting I. This course is designed to explore the study of Generally Accepted Accounting Principles (GAAP) and practices used in business. The focus of this course is on Financial Accounting. Students will study the useful application of recording, adjusting, summarizing and reporting financial data significant to the management and control of a business enterprise. Topics studied include accounting for sole proprietorships, partnerships and corporations with emphasis on service oriented and merchandise firms.
Prerequisite: ACCT 189
4 credits = 4 lecture

ACCT 212 Principles of Accounting II. This course is designed to continue the study of Generally Accepted Accounting Principles (GAAP) and practices used in business. It continues the study of Financial Accounting where ACCT 211 left off. Students will study the useful application of recording, adjusting, summarizing and reporting financial data significant to the management and control of a business enterprise. Topics studied include accounting for long-term liabilities, cash flow analysis and financial statement analysis. In addition, students will begin the study of managerial accounting focusing on concepts of accounting for manufacturing firms including the study of job order and process costing, cost-volume analysis, budgeting, performance analysis, differential analysis and capital investment analysis.
Prerequisite: ACCT 211
4 credits = 4 lecture

ACCT 220 Computerized Accounting. Computerized accounting is an accounting course that is designed to provide students with hands-on experience working with a general ledger software package. Concepts learned will be transferable to and from the course software to software packages encountered in the business world. Students will process business simulations to experience the accounting cycle, processing of accounts payable and accounts receivable, accounting for inventory and fixed assets, processing and accounting for payroll and financial statement analysis.
Prerequisite: ACCT 212
2 credits = 2 lecture

ACCT 241 Federal Income Taxation. This course provides basic concepts in federal income taxation, including gross income, exclusions, adjusted gross income, deductions, exemptions, credits, assignment of income, identification of the taxpayer, tax rates, depreciation, and the alternative minimum tax. It also supplies practical exposure in the preparation of personal returns and an introduction to tax research. Business tax topics may include the Michigan business tax, an introduction to Partnership, Subchapter "S," and corporate taxes.
Prerequisite: None
3 credits = 3 lecture

ACCT 251 Cost Accounting. This course expands upon the managerial accounting concepts introduced in ACCT 212. Cost accounting is the primary focus with emphasis on understanding cost accounting concepts and how the use of cost accounting data assists managers in making better business decisions. Key topics covered include cost accounting systems, cost behavior, profit planning through budgets both static and flexible, utilizing cost accounting information for decision-making and capital budgeting.
Prerequisite: ACCT 212
4 credits = 4 lecture

ADVERTISING DESIGN
(See Art and Communication Design)

AGRICULTURE
Engineering Technology Department (810) 989-5754

AGR 103 Soil Management. This course presents a study of the physical and chemical properties of soil. Discussion will include texture, structure, mineral composition, life in the soil, soil water and air, soil chemistry and fertility management. Offered fall semester only.
Prerequisite: None
3 credits, plus 1 contact hour 2 lecture, 2 laboratory

AGR 104 Computer-Aided Drafting for Landscaping. This course is intended to provide students with the knowledge needed to apply computer-aided drafting and design skills to landscaping. The course includes study of computer use in scale drawing, materials planning, cost estimating, and in business presentations.
Prerequisite: EG 110 or EG 111 or AD 170
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 105 Introduction to Horticulture. A study of plant physiology, the principles of plant propagation, and the responses of plants to environmental conditions is the focus of this course. Offered fall semester only.
Prerequisite: None
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 124 Introduction to Forestry. General information of forestry practices from planting to lumber production is presented. Major areas of study include the importance of forests, tree identification, forestry practices, forest production, conservation, trees and pests. Offered fall semester only.
Prerequisite: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

AGR 126 Garden and Landscape Maintenance. The establishment and maintenance of a garden, flower bed, and home landscape is an integral part of this course. Areas covered will include garden soils, organic matter, pest control, starting plants, transplanting, fertilizing, irrigation, shrub and tree maintenance, lawn care and management.
Prerequisite: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

AGR 127 Landscape Plant Identification & Selection. This course focuses on the ways that plants complete and enhance the new and/or established landscape. Emphasis will be on landscape project site evaluation including climate and micro-climate, soil analysis, aspect, grade, and suitability of plants for different environments.
Prerequisite: AGR 105
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 150 Landscape Placement Training. A multi-week work experience intern program is an important part of this course. This placement training offers an intensive but varied experience in all phases of the industry. Students will be under supervision of the employer and the course coordinator. Each 80 hours of placement training fulfills 1 credit hour.
Prerequisite: None
1 to 6 credits = 1 to 6 lecture/laboratory

AGR 202 Integrated Pest Management. The principles of pest identification, life cycles and controls are presented. In addition, the principles/practices of handling and using pesticides and their legal, public health, and environmental implications are discussed. Preventive methods of controlling pests will be emphasized, along with the possible benefits of pest populations. Students will discover how a pest's presence may indicate something about a crop's growing conditions. The effects of the introduction of exotic species will also be discussed. Offered fall semester only.
Prerequisite: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

AGR 206 Applied Horticulture. This course offers a study of the practical application of horticultural principles, which includes areas of propagation, selection, and care of ornamental plants. Shrub and tree care, fruit production, and landscaping will also be studied. This course is a once-a-year offering.
Prerequisite: AGR 105
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

AGR 207 Greenhouse Management. This is a practical management course designed to acquaint students with the operation of a greenhouse. Areas of study include pest control, temperature and humidity control, shading, light control,

purchasing of supplies and materials, merchandising, structures, and how to design a time schedule to meet the needs of a retail business. Offered winter semester only.
Prerequisite: None
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 208 Nursery Management. This is a practical management course designed to acquaint students with the operation of a nursery. Areas of study include purchasing of various types of plant material in different steps of maturity, purchase of supplies, plant nutrition and care of stock from inception to sale. Offered fall semester only.
Prerequisite: None
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 209 Turf Management. This course is intended to provide a basic working knowledge of turfgrass. The course includes study of turfgrass career options, biology, uses as ground cover for playing surfaces (from golf to baseball) and in landscaping. This course also covers pest and nutrient management as related to different species of turfgrass.
Prerequisite: None
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

AGR 227 Landscape Design. This course prepares students for residential and commercial landscape design work. Students will design, draw, and document landscape projects. Discussion will include site evaluation, client preference, functional needs assessment, project programming, portfolio development, materials and cost-estimating and budgeting.
Prerequisite: EG 110 or EG 111 or AD 170
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

ALTERNATIVE ENERGY TECHNOLOGY

Engineering Technology Department (810) 989-5754

AET 100 Electrical Power & Control Circuits I. This course focuses on the fundamentals of relay circuitry, electric motor control, automation, logic circuits, machine tool applications, blueprint reading, laboratory wiring of D.C. motors and A.C. single phase, and three phase motor control. This course is the same as IA 100.
Prerequisite: MTH 101 or appropriate placement by our college assessment or ACT score
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

AET 102 Programmable Logic Controllers. This course introduces students to programmable logic controllers (PLCs). It focuses on the underlying principles of how PLCs work and provides students with the knowledge and “hands-on” training to install, program, modify, interface, troubleshoot, and maintain PLC systems. Programming is done both on- and off-line. No previous knowledge of PLC systems or programming is required. This course is the same as IA 102.
Prerequisite: AET 100 or IA 100 or ELT 130A and ELT 130B
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

AET 143 Fluid Power & Control Circuits I. This course provides an introduction to fluid power. It focuses on the concepts, physical laws, principles of operation and applications of components and circuits found in modern fluid power systems. This course will provide students with the knowledge and “hands-on” training to install,

modify, troubleshoot, maintain, and repair fluid power components, circuits, and systems. No previous knowledge of fluid power systems is required. This course is the same as IA 143.
Prerequisite: MTH 101 or appropriate placement by our college assessment or ACT score
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

AET 181 Planning a Sustainable Alternative Energy System. The emphasis of this course will be to design an energy system for either a home or small business. In addition to classroom learning and student research, the student will develop a written plan. The final project goal will be zero energy dependence on the power grid. A final written report with research sources, materials used, drawings, and explanations as to how the goal will be achieved is required, and will be critiqued by fellow students and program advisors.
Prerequisite: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

AET 182 Installation & Control of Energy Systems. This course will be an on-site installation of a complete energy system with power and efficiency monitoring and remote sensing. Installation of two or more sustainable energy sources connected to a charge controller and inverter with optional connection to the power grid is required. The wiring of sources to a controller and inverter system to meet safety and local code rules will be achieved.
Prerequisite: AET 181
4 credits = 3 lecture, 1 laboratory

AET 183 National Electrical Code (NEC Handbook). The sections of the National Electrical Code related to high voltage AC wiring for three-phase wind energy turbines with delta and wye connections and proper grounding code rules will be discussed and illustrated. DC and low voltage circuit wiring and proper ground and code rules will be discussed and illustrated. Rules and regulations regarding Inverters/DC charge controllers and connections to the power grid will be discussed and illustrated. Solar panel wiring and proper connection and termination will be discussed and illustrated.
Prerequisite: ELT 130B or IA 100/AET 100
2 credits = 2 lecture

AET 250 Integrated Facility & Energy Systems Internship. This course consists of work experience in industry relating to facility and energy management (80 hours of work experience related to the objectives equals 1 credit). This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training agreement developed which is agreed upon by the student, employer and the college. Special requirements may be necessary.
Prerequisite: Permission of instructor and first year in Facility and Energy Management Program (GPA ≥ 2.5 in major area of study)
1 credit (80 hours of work experience = 1 credit)

ANTHROPOLOGY
Social Science Department (810) 989-5707

ANT 171 Introduction to Anthropology. This course focuses on the processes of human physical and cultural change and adaptation, with a major emphasis on the principles of social organization in diverse cultures of the world.
Prerequisite: None
3 credits = 3 lecture **GA CT**

ARCHITECTURAL DESIGN

Engineering Technology Department (810) 989-5754

AD 120 Architectural Basics. Fundamentals of line work, lettering, orthographic/ pictorial projection, freehand technical sketching and introductory CAD drafting highlight this course. An understanding of architectural building materials and nomenclature will be obtained from lectures and learning how to read architectural building blueprints including floor plans, elevations, sections, details and schedules. Offered fall semester only.
Prerequisite: None
2 credits = 2 lecture/laboratory

AD 121 Structural Basics. The student will learn to identify the structural components that comprise roof, wall, floor and foundation construction including beams and columns. Topics will include construction materials of concrete, masonry, steel and wood. Lectures will include materials and nomenclature of structural components; reading blueprints of structural framing plans and details. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture/laboratory

AD 122 Civil/Sitework Basics. Students will learn to identify the civil/sitework components associated with building construction. Topics will include property descriptions, topography, excavation, grading, paving, and site utilities. Lectures will cover materials and nomenclature of civil-related components, and reading site layout, grading, paving and utilities plans and detail sheets. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture/laboratory

AD 123 Mechanical/Electrical/Plumbing (MEP) Basics. The student will learn to identify the mechanical/electrical/plumbing (MEP) components integrated into all building construction. Topics will include heating, ventilating and air conditioning systems (HVAC), electrical power and lighting systems, and plumbing drain-waste-vent and water distribution systems. Lectures will include materials and nonmenclature of MEP components and learning to read MEP building blueprints. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture/laboratory

AD 130 Architectural Drafting. This course covers fundamentals of linework, lettering, orthographic/pictorial projection, freehand technical sketching and introductory CAD. An understanding of architectural space planning and building assemblies will be obtained from lecture and developing floor plans, elevations, sections, stairways and details. Offered winter semester only.
Prerequisite: EG 111
2 credits = 2 lecture/laboratory

AD 131 Structural Drafting. This course covers the fundamentals of linework, lettering, orthographic/pictorial projection, freehand technical sketching and introductory CAD drafting. An understanding of structural assemblies will be obtained from lectures and developing foundation plans, framing plans and details. Offered winter semester only.
Prerequisite: EG 111
1 credit = 1 lecture/laboratory

AD 132 Civil/Sitework Drafting. Fundamentals of linework, lettering and introductory CAD drafting highlight this course. An understanding of site planning topics will be obtained from lectures and performing a zoning analysis and developing a preliminary plot plan, site layout plan, grading and paving plan and a site utilities plan with details. Offered winter semester only.
Prerequisite: EG 111
1 credit, plus 1 contact hour = 1 lecture, 1 laboratory

AD 133 Mechanical/Electrical/Plumbing (MEP) Drafting. Fundamentals of linework, lettering, symbols and introductory CAD drafting highlight this course. An understanding of HVAC, Electrical and Plumbing design topics will be obtained from lectures and the drafting of a plumbing plan, an HVAC plan and an electrical power and lighting plan. Lecture topics will include figuring drainage fixture units, pipe sizing, heat loss and gain calculations, duct sizing and electrical loading, and circuiting. Offered winter semester only.
Prerequisite: EG 111
1 credit = 1 lecture/laboratory

AD 140 Cost Estimating - Architectural Construction. This course will focus on analyzing and preparing construction cost estimates for architectural related construction trades, including CSI Divisions 6-14, woods, moisture protection, openings, finishes, specialties, equipment, furnishings, special construction and conveying systems. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture

AD 141 Cost Estimating - Building Structural. This course will focus on analyzing and preparing construction cost estimates for the structural-related building construction trades including CSI Divisions 3-5, concrete, masonry, and steel. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture

AD 142 Cost Estimating - Civil/Sitework. This course will focus on analyzing and preparing construction cost estimates for the civil/sitework related construction trades including CSI Division 2 Site Construction and Divisions 31-33; earthwork, exterior improvements and site utilities. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture

AD 143 Cost Estimating - Mechanical/Electrical/Plumbing (MEP). This course will focus on analyzing and preparing construction cost estimates for the mechanical/electrical/plumbing (MEP) related construction trades including CSI Divisions 15-16 and 21-28; Mechanical, Electrical, Fire Suppression, Plumbing, HVAC, Integrated Automation, Electrical Systems, Communications and Electronic Safety Services. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture

AD 150 Civil Architectural Technology. Six weeks or more work experience in industry is an integral part of this intensive but varied experience in the student's program of study. This on-the-job experience will be developed by the employer in

conjunction with a coordinator designated by the college. A written training program which is agreed upon by the student, employer and the college will be developed.
Prerequisite: None
1 to 6 credits = 1 to 6 lecture/laboratory

AD 220 3D & CAD Models - Architectural. Each student will be provided with an architectural design concept for a residential or light commercial building and will be required to construct a three-dimensional scale model of the design and include a mounted perspective drawing for final presentation. Offered winter semester only.
Prerequisite: None
1 credit, plus 1 contact = (1 lecture, 1 laboratory)

AD 221 3D & CAD Models - Structural. Each student will be provided with a structural framing concept for a residential or light commercial building. Each student is required to construct a scaled three-dimensional stick-framed model and a computer-aided digital model of the building structural framing system. Offered winter semester only.
Prerequisite: None
1 credit = 1 lecture/laboratory

AD 222 3D & CAD Models - Civil/Sitework. Each student will be provided with a site design concept for a residential or light commercial building. Each student will be required to construct a scaled three-dimensional topographical presentation model and a computer-aided digital model of the site layout plan including a landscape design. Offered winter semester only.
Prerequisite: None
1 credit = 1 lecture/laboratory

AD 224 Construction Specifications Writing. Each student will be provided a set of plans for a residential or light commercial building and will be responsible for writing a complete Construction Specifications for the project. Offered fall semester only.
Prerequisite: None
1 credit = 1 lecture

AD 230 Design Documentation - Architectural. Each student will be provided an architectural design concept for a residential or light commercial building and is required to develop a set of architectural working drawings containing floor plans, elevations, building sections, wall sections and details including stairway layout. Offered fall semester only.
Prerequisite: EG 111 and one of the following: AD 130, AD 131, AD 132 or AD 133
1 credit plus 1 contact = 1 lecture, 1 laboratory

AD 231 Design Documentation - Structural. Each student will be provided with a structural framing concept for a residential or light commercial building and will be required to develop a set of structural working drawings containing the foundation plan, floor framing plans, wall framing plans, roof framing plans and details. Soil mechanics, foundation design, loads analysis, joist, beam and rafter selection will be discussed. Offered fall semester only.
Prerequisite: EG 111 and one of the following: AD 130, AD 131, AD 132 or AD 133
1 credit, plus 1 contact = 1 lecture, 1 laboratory

AD 232 Design Documentation - Civil/Sitework. Each student will be provided with a survey of a parcel of land for development of a residential or light commercial building and will be required to develop a set of civil working drawings containing the site layout plan, site grading and paving plan, site utilities plan, and landscaping

plan. Zoning ordinances, legal descriptions, topography, cuts and fills, utilities, and landscaping will be discussed. Offered fall semester only.
Prerequisite: EG 111 and one of the following: AD 130, AD 131, AD 132 or AD 133
1 credit = 1 lecture

AD 233 Design Documentation - Mechanical/Electrical/Plumbing (MEP). Each student will be provided with a mechanical design concept for a residential or light commercial building and will be required to develop a set of mechanical working drawings including plumbing plan, HVAC plan and electrical power and lighting plans. Sanitary drain/waste/vent systems, water distribution, heat loss, heat gain, duct sizing and electrical circuiting will be discussed. Offered fall semester only.
Prerequisite: EG 111 and one of the following: AD 130, AD 131, AD 132 or AD 133
1 credit = 1 lecture

AD 234 Architectural CAD Rendering. Each student will be assigned either a residential or commercial building. Student is responsible for creating a computerized, digital 3D model of the building to the extent necessary to generate and render one final full-color perspective of the building exterior and one final full-color perspective of an interior space. Offered winter semester only.
Prerequisite: None
1 credit, plus 1 contact hour = 1 lecture, 1 laboratory

ART AND COMMUNICATION DESIGN
Visual & Performing Arts Department (810) 989-5709

Course sequence guides are available in the Department Office in the Fine Arts Building.

ACD 110 Advertising Design. This course is an introduction to the basic principles of advertising with emphasis placed on the fundamentals and purpose of print, audio and visual campaigns. Topics covered include the creative process and its application in problem solving, the various types of advertising and their use and application, and methods of visual persuasion. Emphasis is placed on being aware of the vital role advertising plays in communicating major concepts that affect the economy of the business world. Agency structure, cost factors and evaluative methods are discussed. Students will demonstrate an ability to structure and execute creative advertising strategy through the production of a television commercial.
Prerequisite: None
3 credits, plus 1 contact hour = 3 lecture, 1 laboratory **CT**

ACD 120 Typography I. Typography is a powerful visual tool, as well as an art form. An idea printed on a page can visually capture a reader - the intonation of that idea is expressed by the typography. This class will provide students with an introduction to the art of typography. Students will explore simple letterforms to complex type composition. In addition, students will learn the names and subtle nuances of typefaces, and the mechanics of type spacing – skills necessary to become a good designer. Offered winter semester only.
Prerequisite: ACD 140
3 credits, plus 3 contact hours = 1 lecture, 5 laboratory **CL**

ACD 140 Introduction to Computer Graphics. This course serves as an introduction for the advertising design student to the use of computers, various graphical software applications, and the hardware necessary for producing page compositions used in

advertising. This course will enable the student to build a foundation of the necessary skills that are required for entering the advertising design arena. Students must provide their own discs.
Prerequisite: None
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ACD 220 Typography II. This course is a continuation of ACD 120 Typography. The course develops students' understanding of typographical principles through practical projects that require them to master computer technologies currently used in various mediums. Offered fall semester only.
Prerequisite: ACD 120
3 credits, plus 3 contact hours = (1 lecture, 5 laboratory)

ACD 230 Digital Illustration. This is an introductory class in creating digital illustrations. Students are challenged by assignments based on jobs typical of those given in the professional arena such as advertising, publishing and editorial illustration. Students will review trends in contemporary digital art, learn about contemporary freelance business practices and begin to develop a digital illustration style. Final digital renderings will be expected to demonstrate the same qualities as traditional illustration, including but not limited to style, composition, color theory, perspective and concept.
Prerequisite: ART 101 and ART 106
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ACD 235 Production Processes. This class provides an opportunity to practice translating design ideas into finished pieces which can be easily produced by a printer. Students investigate several kinds of printing, including letterpress, offset, and gravure, as well as other aspects of publication preparation. Basic design principles and typography for newsletters and advertisements are discussed. Students learn how to plan for a cost-effective publication by studying the capabilities and limitations of the printing. Offered fall semester only.
Prerequisite: ACD 110 and ACD 120
3 credits, plus 3 contact hours = 1 lecture, 5 laboratory

ACD 240 Digital Imaging. This course explores various image editing techniques by using computer programs specifically designed to manipulate and enhance digitized photographs and artwork in a variety of ways. Offered winter semester only.
Prerequisite: ACD 140
3 credits, plus 3 contact hours = 1 lecture, 5 laboratory **CL**

ACD 250 Communication Design I. This course offers an introduction to the concept-to-visualization process. The development of a concept is taught, and exercises take students through procedural stages. Discussions of particularly successful concepts widen students' horizons and provide unique insight. Offered fall semester only.
Prerequisite: ART 117 and ACD 120 and ACD 240
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ACD 255 Communication Design II. Instruction in this course centers on two-dimensional subject matter, concentrating on the integration of structure and surface as carrier of the message. From basic idea to presentation, the intricacies of constructing a visual solution of a final project will be presented. Offered winter semester only.
Prerequisite: ACD 220 and ACD 230 and ACD 235 and ACD 250
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ACD 270 Corporate Communications. This course emphasizes the development of an identity for a business, large or small. Students will also learn how to apply the identity system to internal and external applications. Offered winter semester only.
Prerequisite: ACD 220 and ACD 230 and ACD 250
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ACD 280 Interactive Internet Design. This course serves as an introduction for the communication design student to the internet. The course will cover the design of text and graphics for delivery on the internet. Offered winter semester only.
Prerequisite: ACD 220 and ACD 230 and ACD 250
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ACD 290 Portfolio Presentation. This course is designed to develop the student's portfolio with emphasis on personal career objectives. Subjects also covered include how to seek a position, how to interview, and how to develop the point of view of a designer or art director. Concept exhibiting and craftsmanship are investigated in a final sophomore show of work. Offered winter semester only.
Prerequisite: ACD 220 and ACD 230 and ACD 250
1.5 credits, plus 3 contact hours = 1 lecture, 2 laboratory

ART 101 Foundation Drawing. This course is generally directed to all art majors and is recommended as a prerequisite to most studio art classes. Included is a concentration in the fundamentals, knowledge, attitude and skills necessary for the development of visual imagery. This course may be taken concurrently with other entry level art classes.
Prerequisite: None
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 102 Watercolor Painting. The techniques of watercolor painting are explored, emphasizing composition, design and color. Individual thinking, self-expression and interpretation are stressed.
Prerequisite: ART 105 and ART 117
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 103 Life Drawing I. This is an introductory course in drawing the human figure. A variety of drawing approaches and the exploration of various media, such as charcoal, ink and chalk are included.
Prerequisite: ART 105
3 credits, plus 3 contact hours = 6 laboratory

ART 104 Life Drawing II. This is a continuation of ART 103 in which the student is encouraged to experiment with a wider variety of media and approaches. Watercolor, acrylics and oil techniques will be introduced. An emphasis will be placed on the total composition.
Prerequisite: ART 103
3 credits, plus 3 contact hours = 6 laboratory

ART 105 Drawing II. This course is an in-depth survey of drawing media which are applied to the figure, landscape and still life. Offered winter semester only.
Prerequisite: ART 101
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 106 Basic Design. The principles of two-dimensional design as a foundation for all work in art are explored in various media. The course concentrates on the basic principles of composition, such as harmony, contrast, rhythm, movement and texture, through simple geometric forms. Students develop their technical skills and design concepts by experimenting with a wide variety of tools and materials through the study of design concepts.
Prerequisite: None
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 107 3-Dimensional Design. Three-dimensional problems in the fundamentals of design include projects that are both decorative and functional. Emphasis on form, texture and color are stressed. A variety of media both man-made and natural are explored. Offered winter semester only.
Prerequisite: None
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ART 108 Clay Handbuilding. The focus of this course is on the exploration, interpretation, and understanding of the basic hand building techniques, along with a general understanding of the materials, clays, glazes, kilns and terminology used in clay handbuilding.
Prerequisite: None
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 108A Clay Handbuilding. The focus of this course is on the exploration, interpretation, and understanding of the basic hand building techniques, along with a general understanding of the materials, clays, glazes, kilns and terminology used in clay handbuilding. This course provides half of the lab time of ART 108.
Prerequisite: None
1.5 credits, plus 1.5 contact hours = 1 lecture, 2 laboratory

ART 108B Clay Handbuilding. The focus of this course is on the exploration, interpretation, and understanding of the basic hand building techniques, along with a general understanding of the materials, clays, glazes, kilns and terminology used in clay handbuilding. This course provides half of the lab time of ART 108.
ART 108B is a continuation of 108A.
Prerequisite: ART 108A
1.5 credits, plus 1.5 contact hours = 1 lecture, 2 laboratory

ART 109 Clay Throwing I. This course emphasizes wheel throwing techniques, decoration, glazing and the terminology involved with clay throwing.
Prerequisite: None
3 credits, plus 3 contact hours = 1 lecture, 5 laboratory

ART 109A Clay Throwing I. The techniques of wheel throwing are explored with emphasis on the basic fundamentals of throwing, tooling, bisqueing, glazing and firing. This course provides half of the lab time of ART 109.
Prerequisite: None
1.5 credits, plus 1.5 contact hours = .5 lecture, 2.5 laboratory

ART 109B Clay Throwing I. This course is a continuation of 109A with continued emphasis on all aspects of throwing, individual growth, artistic development and the historical development of clay throwing. This course provides half of the lab time of ART 109.
Prerequisite: ART 109A
1.5 credits, plus 1.5 contact hours = .5 lecture, 2.5 laboratory

ART 117 Color Theory. This course is a continuation of ART 106, including two-dimensional design principles with emphasis on color theory and interaction. Offered winter semester only.
Prerequisite: ART 106
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ART 120 Art Appreciation. This course has a thematic approach to the exploration of the visual arts. Design elements, media, historical periods and movements are presented. These major questions are presented and explored: What is art and how does it work? Why is art made? Who are the artists and who uses the art? This class is for non-art majors.
Prerequisite: None
3 credits = 3 lecture

ART 121 Art of the Western World I. This course is a survey designed to introduce students to the historical and intellectual content of western art history. The class focuses on painting, sculpture and architecture from Paleolithic to late Gothic periods in Europe presented in terms of history, style, meaning and social context. Offered fall semester only.
Prerequisite: None
3 credits = 3 lecture **GA**

ART 122 Art of the Western World II. This course is a survey designed to introduce students to the historical and intellectual content of western art history. The class focuses on painting, sculpture and architecture from the Renaissance to the modern period in Europe and America presented in terms of history, style, meaning and social context. Offered winter semester only.
Prerequisite: None
3 credits = 3 lecture **GA**

ART 201 Clay Throwing II. This is a course in which emphasis is placed on personal development and expression, techniques, and loading and firing of electric kilns.
Prerequisite: ART 109 or ART 109A and ART 109B
3 credits, plus 3 contact hours = 6 laboratory

ART 201A Clay Throwing II. Emphasis is placed on personal development and expression, decorating techniques, glazing techniques, and loading and firing of electric kilns. This course provides half of the lab time for ART 201.
Prerequisite: ART 109 or ART 109A and ART 109B
1.5 credits, plus 1.5 contact hours = 3 laboratory

ART 201B Clay Throwing II. Emphasis is placed on personal development and expression, decorating techniques, glazing techniques and loading and firing of electric kilns. This course provides half of the lab time of ART 201.
Prerequisite: ART 201A
1.5 credits, plus 1.5 contact hours = 3 laboratory

ART 203 Painting. This class analyzes and discusses problems relative to painting. Various techniques, styles and media will be explored through paintings.
Prerequisite: ART 102 or ART 111
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ART 204 Raku Pottery. The philosophy and challenge of a traditional Japanese technique is the focus of this course. The history, tea ceremony, clays, glazes, kilns and step-by-step description of reduction techniques and other methods of firing are discussed and analyzed.
Prerequisite: ART 108 or ART 108A and ART 108B or ART 109 or ART 109A and ART 109B
3 credits, plus 3 contact hours = 3 lecture, 3 laboratory

ART 206 Advanced Ceramics. This course will explore design and production of complicated forms including advanced hand building and throwing techniques. It is for advanced ceramic students with a focus on individual projects. Students will use multiple glazing and firing applications including Raku. Glaze formulation will be an important part of this investigation of ceramics.
Prerequisite: ART 108 or ART 109
1.5 credits, plus 1.5 contact hours = 1 lecture, 2 laboratory

ART 208 Clay Handbuilding II. This course is a continuation of the introductory clay handbuilding class. The student will innovate a more personal style of expression and interpretation of works dealing with scale, surface treatment and glazing based on the introductory techniques already developed.
Prerequisite: ART 108 or ART 108A and ART 108B
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ART 208A Clay Handbuilding II. This course is a continuation of ART 108. The student will innovate a more personal style of expression and interpretation of works dealing with scale, surface treatment and glazing based on advanced techniques. This course provides half of the lab time of ART 208.
Prerequisite: ART 108 or ART 108A and ART 108B
1.5 credits, plus 1.5 contact hours = 1 lecture, 2 laboratory

ART 208B Clay Handbuilding II. This course is a continuation of ART 208A. The student will innovate a more personal style of expression and interpretation of works dealing with scale, surface treatment and glazing based on advanced techniques already developed. This course provides half of the lab time of ART 208.
Prerequisite: ART 208A
1.5 credits, plus 1.5 contact hours = 1 lecture, 2 laboratory

ASSOCIATE DEGREE NURSING
(See Nursing, Associate Degree)

ASTRONOMY
Math and Science Department (810) 989-5663

AST 104 Astronomy of the Solar System. This course is an introduction to the astronomy of the solar system, including the Sun, its planets, their satellites, and the solar debris. The course will include discussions of the development of astronomy from

ancient times to recent discoveries and experience with the types of mathematical exercises and observations essential to a grasp of the fundamental principles of solar system astronomy. The laboratory for this course is AST 106 – Astronomy, Laboratory.
Prerequisite: None
3 credits = 3 lecture

AST 105 Astronomy of the Stars. This course is an introduction to the astronomy of the stars, including the sun and associated important stars and constellations. The course will include discussions of the development of astronomy from ancient times to recent discoveries and hands-on experience with the types of mathematical exercises and observations essential to a grasp of the fundamental principles of stellar astronomy. The laboratory for this course is AST 106 – Astronomy, Laboratory
Prerequisite: None
3 credits = 3 lecture

AST 106 Astronomy, Laboratory. This course is the laboratory course associated with AST 104 (Astronomy of the Solar System) and AST 105 (Astronomy of the Stars). It provides hands-on experience with the methods and instruments of the physical sciences as they relate to astronomy.
NOTE: Students can only receive credit once for AST 106. Students must have completed or be concurrently enrolled in either AST 104 or AST 105.
Prerequisite: None
1 credit, plus 1 contact hour = 0 lecture, 2 laboratory

BIOLOGY
Math and Science Department (810) 989-5663

BIO 100 Principles of Biology. This course will explore the central themes of biology, including biochemistry, cell structure and function, genetics, reproduction, evolution and ecology. Laboratory activities will enable students to learn new skills and explore selected topics in more detail.
Prerequisite: ENG 075 and MTH 050 or appropriate placement by college assessment or ACT score
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory **CT**

BIO 110 Cell Biology for Anatomy and Physiology. This course provides students with the foundation in basic cell biology that is necessary to understand the structure and function of the human body. Topics include basic chemistry, organic molecules, cell structure and function, basic genetics, and a survey of human body systems. Emphasis is placed on learning and using effective study strategies.
Prerequisite: None
3 credits = 3 lecture

BIO 150 Natural History. Natural history will enhance the student's understanding of the world of nature. Field experiences will be conducted to enable students to accurately identify native plants, animals, and rocks and minerals in their natural setting. Methods of collection, maintenance, and display of specimens will be provided. Prospective teachers, camp counselors, nature lore instructors, scout leaders and others desiring to learn more about their natural surroundings may find this course to be of value.
Prerequisite: None
4 credits, plus 2 contact hours = 2 lecture, 4 laboratory

BIO 160 Anatomy and Physiology for Health Care Professionals. This course is designed as a survey emphasizing the basic concepts and principles of human anatomy and physiology to help provide students with an adequate background to carry out health care duties. This course is intended only for students in the Practical Nursing, Office Administration – Administrative Medical Assistant and Office Administration – Medical Clinical Assistant programs.
Prerequisite: ENG 075 or appropriate placement by college assessment or ACT score
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

BIO 200 Introductory Botany. Introductory botany introduces the student to diverse structures of major plant groups, life processes, inheritance, evolution and environmental relationships of plants. This course is a once-a-year offering.
Prerequisite: BIO 100 or two years of high school Biology
5 credits, plus 2 contact hours = 3 lecture, 4 laboratory

BIO 205 Medical Microbiology. This course provides a general study of microorganisms. Major topics considered in this course include host-parasite relationship, defenses of the host, communicable diseases, microbial control, microbial culturing, and techniques of immunology.
Prerequisite: BIO 100 or BIO 160 or BIO 271
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

BIO 206 Microbiology. This course provides a general study of microorganisms. Major topics considered in this course include microbial taxonomy, anatomy and physiology of microorganisms, microbial basis of disease, as well as those of microbial control and economic significance. Techniques of culturing and identification of microorganisms are emphasized in the laboratory. The course is designed for biology majors, medical technology students, and related allied health fields. A previous course in college chemistry is recommended.
Prerequisite: BIO 100 or BIO 160 or BIO 271
5 credits, plus 2 contact hours = 3 lecture, 4 laboratory

BIO 220 Ecology. This course will explore how living organisms interact with each other as well as with their physical surroundings. The course will specifically focus on ecosystem types, population dynamics, community interactions, evolution, biogeography and the impact of humans on the natural environment.
Prerequisite: BIO 100 or permission of instructor
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory

BIO 240 Freshwater Biology. This course is an introduction to the study of freshwater ecosystems including lakes, streams and wetlands. Topics include the physical and chemical characteristics of water as an environment, the diversity of aquatic organisms, population dynamics, community ecology, chemical cycles, energy flow, and the management and conservation of freshwater habits. Laboratory work includes the collection and identification of plankton and aquatic invertebrates, identification of aquatic plants, chemical analysis of water, and statistical analysis of data. Participation in field trips is required.
Prerequisite: BIO 100 or permission of instructor
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory

BIO 250 General Zoology. This course is designed to assist students in learning about the evolutionary relationships of the major animal groups. Further emphasis will include comparative anatomy and physiology, ecology, classification, behavior

and economic values of major animal representatives. This course is a once-a-year offering.
Prerequisite: BIO 100 or two years of high school Biology
5 credits, plus 2 contact hours = 3 lecture, 4 laboratory

BIO 270 Environmental Issues. The major approach in this course is with cultural evolution, technological pollutants, population patterns, energy consumption, land use and how humans impact the environment. Additional emphasis will be placed upon the economic, political and educational relationships dealing with those decisions that affect the values which bring about social changes.
Prerequisite: None
3 credits = 3 lecture **CT**

BIO 271 Human Anatomy and Physiology I (Formerly BIO 171). This course is the first part of a two course sequence studying the anatomy and physiology of the human body. The major concept areas emphasized in this course are the general organizational features of the body, cellular and tissue organization, and the anatomical and physiological characteristics of the integumentary, skeletal, muscular, nervous and endocrine systems.
Prerequisite: ENG 075 or appropriate placement by college assessment or ACT score
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

BIO 272 Human Anatomy and Physiology II (Formerly BIO 172). This course continues the study of the anatomy and physiology of the human body initiated in BIO 271. The major concept areas emphasized in this course include the anatomical and physiological characteristics of the circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Regulation of pH (acid/base), body fluids and nutrients is also emphasized.
Prerequisite: Earned grade of "C" or better in BIO 271 or BIO 160
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

BIO 280 Pathophysiology. Pathophysiology is a biological introduction to the study of disrupted normal functioning of the human body. Emphasis is placed on various physiological concepts with related pathological implications.
Prerequisite: BIO 272
4 credits = 4 lecture

BIO 290 Advanced Freshwater Biology. In this capstone course, students will apply the knowledge and skills they have gained throughout their coursework in the Freshwater Studies program through participation in a research based project or internship. In doing so, students will be expected to apply their knowledge/skills to current topics and/or real world situations as they pertain to Freshwater Studies. Students will choose between Option A, a research based project, or Option B, an internship. Students electing Option A will choose their own projects with instructor approval. Special requirements may be necessary for Option A. Students electing Option B, the internship, will gain work experience in a field relating to Freshwater Studies (80 hours of work experience related to the objectives equals 1 credit, not to exceed 2 credits). This on-the-job experience will be developed by the employer in conjunction with the instructor. There will be a written training agreement developed which is agreed upon by the student, employer and the college. Upon completion,

students will be expected to provide a written report as directed by the instructor. Special requirements, including permission of the instructor, may be necessary for Option B.
Prerequisite: BIO 220 and BIO 240
2 credits, plus 2 contact hours = 1 lecture, 3 laboratory

BROADCASTING **(See Communications Media)**

BUSINESS ADMINISTRATION AND ECONOMICS

Business Administration Department (810) 989-5575

BUS 150 Principles of Business. This course covers the fundamentals of the following: career choices, trends and economic issues affecting business, forms of business ownership, entrepreneurship and franchising, starting a small business, marketing principles, pricing, distribution, wholesaling and retailing, promotion and marketing research, management and leadership, organizing a business, production and operations management, management tools for information processing, motivating employees, human resource management, employee management issues, accounting fundamentals, financial management, stocks and bonds, financial institutions, insurance, legalistic versus ethics-based management and international business.
Prerequisite: None
4 credits = 4 lecture **GA**

BUS 153 Business Law. This course is a practical approach to law that emphasizes current and relevant topics students need to understand about business transactions and issues, such as contracts, property, employer/employee relations, and insurance.
Prerequisite: None
3 credits = 3 lecture **CT**

BUS 155 Principles of Management. This course surveys principles and practices of business from the point of view of the manager as well as that of the employee. The course also presents a detailed development of the functions of management.
Prerequisite: None
3 credits = 3 lecture

BUS 158 Business Math. This course focuses on the application of mathematics fundamentals to a variety of business/consumer situations including, but not limited to: payroll, interest, present value, pricing, investments, taxes and use of percents. The course also covers basic math and elementary algebra concepts.
Prerequisite: Successful completion of the Math Assessment Test or MTH 050
4 credits = 4 lecture **MA CT**

BUS 180 Marketing Principles. This course is an introduction to the marketing concept and its role in overall business strategy. It covers identifying segmentation, differentiation, target marketing and positioning opportunities that can be addressed with the proper marketing mix. All of this is taught in the context of today's complex global environment.
Prerequisite: BUS 150
4 credits = 4 lecture

BUS 181 Professional Selling. This course covers the basic fundamentals of professional selling which consists of developing a presentation strategy, planning the pre-approach, the approach, demonstration, negotiation, close and servicing the sale.
Prerequisite: None
3 credits = 3 lecture **OC**

BUS 185 Principles of Retailing and Customer Service. This course is designed to give the prospective store or franchise owner the necessary background for a successful career in retailing. The material covered includes current practices and methods; topics include store layout, personnel management, buying, retail advertising and control procedures. The course also will devote a significant section to principles and practices of customer service, as it relates to retailing and other industries. This course is a once-a-year offering.
Prerequisite: BUS 180
3 credits = 3 lecture

BUS 188 Directed Business Study. The study will be directed by a business instructor. Activities may include research, projects, papers, examinations, field training or employment.
Prerequisite: Permission of instructor.
1 to 4 credits = 1 to 4 lecture/laboratory

BUS 199 Personal Finance. An analysis of the fundamental principles of personal financial planning and the primary focus on family financial management. The emphasis will be on developing terminology, and understanding the nuances of budgeting and tax planning, managing liquidity, personal finance, wealth protection, personal investing, retirement and estate planning. An analysis of personal objectives and financial planning will be utilized to develop a comprehensive financial plan.
Prerequisite: None
3 credits = 3 lecture

BUS 221 Principles of Economics I. General economic concepts will be examined by covering the following: the nature and method of economics, an introduction to the economizing problem, pure capitalism and the circular flow, understanding individual markets - demand and supply, the fundamental market questions, the economic functions of government, the facts of American capitalism - the private sector and the public sector, measuring national output, national income and the price level, macroeconomic instability - unemployment and inflation, aggregate demand and aggregate supply, classical and Keynesian theories of employment, equilibrium national output in the Keynesian model, fiscal policy, money and banking, how the banks create money, the federal reserve banks and monetary policy, budget deficits and the public debt and economic growth.
Prerequisite: 20 credit hours completed
3 credits = 3 lecture **GA CT**

BUS 221H Honors Principles of Economics I. General economic concepts will be analyzed by examining the nature and method of economics and the economizing problem; characteristics of individual markets regarding supply and demand, pure capitalism, and the market system; private and public sectors of the economy; measuring domestic output, national income, macroeconomics instability, unemployment, the price level and inflation; the aggregate expenditures model with reference to demand and supply, the multiplier, net exports, and the government; fiscal and monetary policy; money and banking, including the Federal Reserve Banks and how banks create money. Also explored will be alternative views on macroeconomic

theory and policy, the relationship between inflation and unemployment, the public debt, budget deficits, economic growth, and the place of the United States in the global economy. Emphasis will be placed on application of the economic principles.
Prerequisite: 20 credit hours completed and acceptance into the Honors Program
3 credits = 3 lecture **GA CT**

BUS 222 Principles of Economics II. General economic concepts will be examined by covering the following: demand, supply and elasticity, the theory of consumer behavior, the costs of production, price and output determination under conditions of pure competition, pure monopoly, monopolistic competition and oligopoly, production and the demand for economic resources, wage determination, rent, interest and profits, general equilibrium in a market system, government and economic policy including antitrust and regulation, the agricultural problem, the problems of the cities, the economics of health care, income distribution, labor market issues-unionism, discrimination and immigration, international trade, exchange rates, the balance of payments, the trade "crisis," growth and the less developed countries, and the global economy.
Prerequisite: BUS 221 or BUS 221H
3 credits = 3 lecture **GA CT**

BUS 222H Honors Principles of Economics II. Microeconomic concepts will be examined by covering the following: demand, supply and elasticity, the theory of consumer behavior, the costs of production, price and output determination under conditions of pure competition, pure monopoly, monopolistic competition and oligopoly, production and the demand for economic resources, wage determination, rent, interest and profits, general equilibrium in a market system, government and economic policy including antitrust and regulation, the agricultural problem, the problems of the cities, the economics of health care, income distribution, labor market issues-unionism, discrimination and immigration, international trade, exchange rates, the balance of payments, the trade "crisis," growth and the less developed countries, and the global economy.
Prerequisite: BUS 221 or BUS 221H and acceptance to the Honors Program
3 credits = 3 lecture **GA CT**

BUS 257 Supervision Management. This course will help the student develop the skills and knowledge necessary to become an effective supervisor. Emphasis will be on supervision principles and the application of those principles to supervision practices.
Prerequisite: BUS 155
3 credits = 3 lecture

BUS 258 Human Resources Management. This course focuses on the fundamentals of human resource management (HRM). Major areas of focus are on understanding HRM, legal and ethical issues in HRM, staffing, training and development, high performance work systems and labor relations. Students will perform many tasks in a team environment including case analyses and an in-depth interview project. Through the completion of the interview project, students will have an opportunity to complete the staffing process from both sides of the interview table as an interviewer and as an applicant.
Prerequisite: BUS 155
3 credits = 3 lecture

BUS 259 Management Internship. This internship provides students with a "real-world" experience in management. Students will work in a business setting performing functions of management such as: planning, leading, organizing and controlling. Students may take from a one to three credit internship. Each credit hour requires fifty hours of work. Periodic reports will be provided by the employer to the internship coordinator to discuss progress and problems. The employer and the student will complete performance appraisals at the end of the internship. The student will complete a term paper relating the theories of management to the internship experience.
Prerequisite: BUS 155
2 to 3 credit hours = 2 to 3 contact hours

BUS 261 Marketing Internship. This internship provides a work experience arrangement for students in the Associates Degree in Marketing program. Between fifty (1 credit) and one hundred fifty (3 credits) hours of work experience is necessary to complete the program. Regular updates will be held with the advisor to discuss experiences and problems. An appraisal will be completed by the employer and a term paper or Marketing Project will be required from the student. Completion of the internship will provide the student with work experience in the area of Marketing and provide an opportunity to network and possibly find a job in the field of Marketing.
Prerequisite: BUS 180
2 to 3 credit hours = 2 to 3 contact hours

BUS 270 Applied Management Capstone (Formerly BUS 156). This is a capstone course which extends the knowledge of the student beyond the management principles level. Emphasis will be on the application of management concepts and principles to real world management situations. The mode of instruction will be varied, using lectures, reading assignments, group projects, case analysis and field interviews.
Prerequisite: BUS 150 and BUS 257 and BUS 258 and ACCT 211
3 credits = 3 lecture **OC CT**

BUS 271 Applied Marketing Capstone. This is a capstone course which extends the knowledge of the student beyond the marketing principles level. Emphasis will be on the application of marketing concepts and principles to real world situations. The mode of instruction will be varied, including lectures, reading assignments, group projects, case analysis and business simulation programs.
Prerequisite: BUS 155 and BUS 180 and BUS 221 and ACCT 211
3 credits = 3 lecture **OC CT**

CAREER DEVELOPMENT **(See Student Development)**

CHEMISTRY
Math and Science Department (810) 989-5663

Two sequences in chemistry are available to the entering student. Certain fundamental concepts of investigation are common to all students in chemistry. Those students enrolling in a curriculum requiring a strong background in chemistry should take CHM 111 and CHM 112. Those desiring only an introduction to general chemistry and organic/biochemistry should consider CHM 101 and CHM 102.

CHM 101 Introduction to Inorganic Chemistry. Several foundation concepts of inorganic chemistry are presented. The emphasis is placed on measurement, atomic and molecular theories and models, states of matter, fundamental stoichiometry, and

reaction theory. Applications, some theory, and the scientific method of thought are stressed. Laboratory experiments are designed to enhance these basic chemical principles and provide techniques of data gathering and communication.
Prerequisite: MTH 102 or higher
4 credits, plus 3 contact hours = (4 lecture, 3 laboratory)

CHM 102 Introduction to Organic and Biochemistry. The organic chemistry segment considers the carbon atom, the classical functional groups, their definition, structure and bonding, systematic nomenclature, properties and reaction. The biochemistry segment examines fundamental organic molecules that occur in living organisms (biomolecules), in addition to considering the dynamic sequential reactions that interrelate these molecules. The laboratory is used to enrich the students' experience by demonstrating techniques and establishing relationships to the topics under consideration. Offered winter semester only.
Prerequisite: CHM 101
4 credits, plus 3 contact hours = 4 lecture, 3 laboratory

CHM 111 Chemistry Theory and Principles with Analysis. A primary emphasis is placed on fundamental chemical concepts and problem solving. Topics of measurement, number analysis, nomenclature, atomic and molecular modeling, reaction stoichiometry, states of matter and solution chemistry are considered. The laboratory is directed toward development and improvement of fundamental techniques, collection of data, analysis of these data, drawing conclusions and communication of information to others.
Prerequisite: MTH 110 or higher and high school chemistry or equivalent
5 credits, plus 2 contact hours = 4 lecture, 3 laboratory

CHM 112 Chemistry Theory and Principles with Analysis. This is a continuation of CHM 111 in theory and calculations. Emphasis is placed on topics of introductory physical chemistry; for example, kinetics, equilibrium, thermodynamics, electrochemistry and coordination compounds. The laboratory will consider data that relates to these major topics in a quantitative approach. The study of qualitative analysis of selected ions is also considered. Offered winter semester only.
Prerequisite: CHM 111
5 credits, plus 3 contact hours = 4 lecture, 4 laboratory

CHM 210 Instrumental Analysis. A survey of practices and techniques in chemical analysis and of common spectroscopic, separation, electrochemical, and instrumental methods will be provided. The course provides a framework that can be used to understand new and old techniques, the theory behind a variety of specific techniques and the current practices. Interpretation of the output of these devices will be discussed, but the emphasis will be on the components within the instrumentation (inside the box), on the techniques used to obtain better output and better chemical knowledge from the output, and on the similarities between the different techniques.
Prerequisite: CHM 111; CHM 112 recommended
5 credits, plus 3 contact hours = 4 lecture, 4 laboratory

CHM 215 Organic Chemistry I. This class serves as an introduction to the nomenclature, reactions and synthesis of aliphatic and aromatic compounds and alkyl halides. Physical, structural and spectral properties of the various hydrocarbon subgroups are integrated with chemical bonding principles, reaction concepts and

stereochemistry. The laboratory is designed to develop the techniques needed for product isolation, purification and identification of organic compounds. Offered fall semester only.
Prerequisite: Successful completion of CHM 112
5 credits, plus 3 contact hours = 4 lecture, 4 laboratory

CHM 216 Organic Chemistry II. The major functional groups based upon oxygen, nitrogen and sulfur are covered. The reactions of these compounds are approached from a mechanistic perspective including inductive, resonance, thermodynamic, kinetic and equilibrium effects. Special topics include polymers, intramolecular rearrangements and photochemical reactions. In the laboratory, emphasis is on the accomplishment of major classes of organic reactions and synthesis. Offered winter semester only.
Prerequisite: CHM 215
5 credits, plus 3 contact hours = 4 lecture, 4 laboratory

CHILDHOOD DEVELOPMENT
(See Early Childhood Education)

CHINESE
Communications Department (810) 989-5578

CHI 101 Introductory Mandarin Chinese I. The essentials of the Chinese language and culture are introduced in this course. Students begin to achieve basic facility in speaking, understanding, reading, and writing the Pinyin language as well as acquiring insight into Chinese life and customs. Students are provided with rich opportunities to interact with native Chinese language speakers in voice and text chat in the Chinese School in Second Life virtual world.
Prerequisite: None
4 credits = 4 lecture

CHI 102 Introductory Mandarin Chinese II. In this course, students will gain deeper understanding of Chinese language and culture. Weekly synchronous group learning activity is emphasized in this course to enhance real time student-instructor and student-student interaction. Students will be able to access a virtual community, in Second Life, called Chinese School, where students can view multimedia content, and chat with native Chinese speaking instructors, tutors and peers. More importantly, students will be immersed into a virtual Chinese environment where many cultural objects and artifacts are embedded. Group problem solving projects embedded in the Second Life Chinese School will be both engaging and instructive for students to collaboratively explore the Chinese vocabularies and structures. Groups of students will co-quest the language and culture challenges in the Second Life Chinese School.
Prerequisite: CHI 101
4 credits = 4 lecture

COMMERCIAL ART **(See Art and Communication Design)**

COMMUNICATIONS MEDIA
Communications Department (810) 989-5578

CM 101 Introduction to Mass Media. An introduction to all mass communications media, this course includes a review of the history of the development of mass media in the areas of television, radio, newspapers, magazines, books and film. Students participate in discussions, projects and readings that focus on the importance and significance of mass media in all of contemporary life.
Prerequisite: None
3 credits = 3 lecture **CT**

CM 102 News Writing. Emphasis is placed on the daily newspaper. The fundamentals of news writing, highlighting style and structure are also stressed. Practical experience may be given in covering assignments for the college newspaper and radio station. This course is a once-a-year offering.
Prerequisite: None
3 credits = 3 lecture

CM 103 Basic Photography. This class presents a survey of the history of photography that includes an introduction to the camera - its lens opening, shutter speeds and effective lighting techniques. Photographic darkroom techniques including film processing and print development are also discussed and practiced. This class is open to all students. Digital camera required.
Prerequisite: None
3 credits, plus 2 contact hours = 2 lecture, 3 laboratory

CM 104 Radio/Television Production. Students will produce programs for St. Clair County cable television in this introduction to performing, directing and producing campus based television programs. Students also host their own radio programs on the campus AM radio station. Students will make audition tapes for both radio and television employment opportunities. Offered fall semester only.
Prerequisite: None
3 credits, plus 2 contact hours = 3 lecture, 2 laboratory

CM 110 - 114 Journalism Practicum I - V. The student will have supervised experience producing the college newspaper, the *Erie Square Gazette*. The practicum student earns credit working in news writing, advertising, photojournalism or composition. No previous experience is necessary. Four semester hours are required in the Journalism degree program. Students may follow the course sequence CM 110 through 114, practicums I through V.
Prerequisite: None
1 credit each = 1 lecture/laboratory

CM 115 - 118 Radio Broadcasting I - IV. There will be supervised study in the college radio station, WSGR-FM. Students are expected to work in the station a minimum of two hours per week during the semester. The student will learn to operate radio equipment and to produce his or her own radio program for the station. Opportunities to work in news, sports, public service, music and programming will be available. Students may receive credit for each of four semesters. Four semester hours are the maximum amount of credits to be earned at one credit per semester. No previous

experience is necessary. The student will work a minimum of 32 hours on air and on related assignments to earn one credit hour. Student may follow the course sequence CM 115 through 118, practicums I – IV.
Prerequisite: None
1 credit each = 1 lecture/laboratory

CM 200A/C Internship in Broadcasting I and II. This internship is meant to give students the opportunity to practice skills learned in class in a real work setting. Students who are recommended by a communications instructor make an application to the area of communications business that they are interested in working with. If the business is willing to participate, the student will work either 20 or 40 hours per week for the duration of the semester for either 3 or 6 hours of credit. Offered fall, winter, spring and summer semesters.
Prerequisite: Permission of instructor
3 credits each = 3 lecture/laboratory

CM 200B/D Internship in Journalism I and II. This internship provides experience for the journalism student at one of our area newspapers. Students are required to work 20 to 40 hours per week for either 3 or 6 hours of credit. Approval must be obtained from the journalism instructor and the newspaper. Offered fall, winter, spring and summer semesters. Special requirements may be necessary; check with instructor.
Prerequisite: Permission of instructor
3 credits each = 3 lecture/laboratory

CM 201 Editing. This course will help the student become proficient in copy reading, headline writing and styles, and in laying out a newspaper or house magazine correctly.
Prerequisite: None
2 credits = 2 lecture/laboratory

CM 202 Advanced News Writing. This course is a continuation of CM 102 and is intended to provide practice in reporting more complex and specialized stories and to study how news is obtained from the various governmental and community agencies. This course is a once-a-year offering.
Prerequisite: CM 102
3 credits = 3 lecture

CM 203 Photojournalism. This course introduces students to the fundamentals of news photography, including composition, layout, cropping, and general photographic editing for publication. Laboratory exercises include photographic assignments, darkroom techniques and picture essays. This course is a once-a-year offering. Digital camera required.
Prerequisite: CM 103
3 credits, plus 2 contact hours = 2 lecture, 3 laboratory

CM 204 Advanced Television Workshop. Students will learn fundamentals of television anchoring, weather and sports casting and street reporting. Students will work on producing cable television programming focusing on St. Clair County. Programs will include County Government Beat, Spotlight on the County Sheriff's Department, and Today in St. Clair County. Work completed in the semester will be added to each student's audition tape resumé.
Prerequisite: CM 104
3 credits, plus 2 contacts = 3 lecture, 2 laboratory

CM 206 Radio and TV Production Workshop. News and public affairs programming will be the focus of this course. Students will work on a weekly SCR-TV newscast originating from campus studios in the Wismer Communications Center. The newscast will appear on St. Clair County cable television. Students will work on daily newscasts on the campus FM radio station, WSGR. News programs will include campus news, city and county news, sport, weather and entertainment. Students will gain experience through working with National Public Radio Broadcasts and Public Radio International programming. This course is a once-a-year offering.
Prerequisite: CM 104
3 credits, plus 2 contacts hours = 3 lecture, 2 laboratory

CM 208 Radio/Television Writing. This course is designed to provide students with the basic knowledge necessary to function as employees in the news or copywriting departments of commercial radio, public radio, or television stations. Students develop writing skills and interviewing techniques that are basic to news department operation, and they develop skills necessary to write and produce radio and television commercials. Laboratory time will be spent writing and assembling copy for WSGR newscasts and for a college-oriented television newscast produced for cable. This course is a once-a-year offering.
Prerequisite: ENG 101
3 credits, plus 1 contact hour = 3 lecture, 1 laboratory

CM 209 Introduction to Digital Photography. This course introduces students to the study of pixel-based photography and the process of creating images and storing images using digital cameras, computer based media or digital media. Artistic, theoretical, ethical and technical aspects of digital photography will also be studied. Other topics to be covered include what to look for when buying a digital camera; the theory, mechanics and art of digital imagery; digital darkrooms; the process of digital photo taking; stitching photos for virtual reality and preparing digital images for print, World Wide Web and other digital media.
Prerequisite: CM 103 and CIS 115, or permission of instructor
3 credits, plus 2 contact hours = 2 lecture, 3 laboratory

COMPUTER-AIDED DRAFTING AND DESIGN

(See Engineering Graphics)

COMPUTER INFORMATION SYSTEMS

Computer & Office Technology Department (810) 989-5628

CIS 050 Basic Computer Skills. This course is designed to improve a student's computer skills as it applies to being successful in college and prepared for a computer literacy course. Emphasis will be on effectively interacting with the computer, its operating system and applications. Topics include computer hardware basics, using a Graphic User Interface to interact with an operating system, data storage and basic file management, effective information gathering from the Internet, and electronic communication via email. Out-of-class lab practice time is required.
Prerequisite: None
1 credit = 1 laboratory

CIS 110 CIS Concepts and Careers. This course examines the impact of computers on business, society and the individual. Topics include the evolution of computers; the information processing cycle; components of an information system; usage of the

computer as an information gathering tool; basic hardware and software terminology and concepts; information system design and development; data communications, networking, the Internet; and exploration of computer-related careers.
Prerequisite: None
4 credits = 4 lecture/laboratory

CIS 112 Data Cabling Installation. This course prepares students to sit for the Electronics Technicians Association's Data Cabling Installer Certification exam. This exam assesses the ability to correctly design, install and test Category 5 and 6 Network Cable. This course provides the theory and concepts behind cabling standards. It prepares the student to perform the tasks actually required of a cable installer. This course would also be appropriate for those involved in the commercial construction industry as well as computer service and network administration personnel.
Prerequisite: None
2 credits = 2 lecture/laboratory

CIS 115 Microcomputer Applications (Formerly DP 115 and DP 110). This is a hands-on class using the microcomputer in a variety of applications, including word processing, electronic spreadsheet and database management. The course will emphasize systems as well as applications software. Fundamentals such as identifying computer hardware, file management and problem solving methodologies will be presented.
Prerequisite: None
4 credits = 4 lecture/laboratory **CL**

CIS 120 Introduction to Networking – Net+ Certification. This course gives students a broad overview of the networking industry. The course will cover common concepts of the technologies, topologies, protocols and standards that are used in networking. Students who successfully complete this course will be prepared to take the CompTIA Network+ certification, a credential that is often required/requested by employers. In addition, this course will cover the material necessary to pass the CIW Network Technology Associate examination, which is beneficial to students planning a career in web development or web administration. Knowledge and skills acquired from this course will be needed later in the networking program.
Prerequisite: None
4 credits = 4 lecture/laboratory

CIS 121 Introduction to Local Area Networks. This course covers local area network (LAN) physical media, layer 2 architectures, and network operating systems in detail. The course examines the advantages and disadvantages of common cable infrastructure, and provides guidelines for when each is appropriate. During this course students will examine the leading network operating systems and their administration. Wide area network considerations will be introduced. The course concludes with general LAN considerations and a case study. Offered fall semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 122 Wide Area Networks. Participants in this course learn the technologies used to move voice and data across long distances. They will discover important new technologies such as Asynchronous Transfer Mode (ATM) that integrate voice, data

and video communications. Basic concepts of how information is transported over a wide area network (WAN), from physical layer to application layer, and how these technologies work is also reviewed. Offered fall semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 123 TCP/IP. The world's largest network, the Internet, is also one of the world's most powerful communication tools. Learn the underlying applications, components and protocols of TCP/IP and its necessary link to the Internet. This course will help participants learn how to identify TCP/IP layers, components and functions. Navigation tools, TCP/IP services, utilities and troubleshooting methodologies are also covered. Offered winter semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 130 Operating Systems. This course provides an introduction to current microcomputer operating systems from an end-user perspective. Functions common to all operating systems will be examined. Through lecture and hands-on exercises, students will explore concepts and usage of several different systems such as: MS-DOS, Microsoft Windows™ and Unix.
Prerequisite: CIS 115
4 credits = 4 lecture/laboratory

CIS 150 Programming Concepts. This course provides an introduction to general programming topics such as: the program development cycle, data types and control structures, structured programming principles, problem solving, basic algorithms and data validation.
Prerequisite: MTH 102 or BUS 158
2 credits = 2 lecture/laboratory

CIS 160 A+ Certification. This is an introductory course on how the computer works at the hardware level. Students will learn the basics of upgrading, maintaining and repairing a computer. Topics include the system board, BIOS, DOS, floppy drives, hard drives, peripheral devices, memory, troubleshooting, supporting Windows and others. This course prepares the student to take the A+ Certification exam. This course is the same as ELT 160.
Prerequisite: None
4 credits = 4 lecture/laboratory

CIS 200 Electronic Spreadsheets. This course focuses on the capabilities, features and usage of electronic spreadsheet software. Particular attention is given to the application of these spreadsheet tools in the solution of practical problems from business, finance, science and other areas. Through lecture and hands-on exercises, students will examine the skills which are needed to make effective use of spreadsheets including: worksheet design, problem organization, use of advanced functions, data manipulation, advanced charts and graphs, spreadsheet automation and presentation of results.
Prerequisite: CIS 115 or OA 157
4 credits = 4 lecture/laboratory

CIS 202 Microcomputer Databases. This course addresses the design, creation and management of relational databases. Topics covered include database fundamentals, the use of the database management software, the fundamentals of application development and the use of the data management topics such as structured query

language (SQL). Emphasis is placed on “hands-on” use of popular personal computer database software. Students will be expected to design and develop a real-world database application.
Prerequisite: CIS 115
4 credits = 4 lecture/laboratory **CL**

CIS 205 Internet Development I. This course provides an introduction to development and management of content for the Internet, specifically the World Wide Web (WWW). Techniques for planning, developing, organizing and maintaining WWW content and sites will be addressed. Through lecture and hands-on exercises, students will explore concepts and usage of HTML, Web-creation and management software, and basic web scripting tools.
Prerequisite: CIS 115
4 credits = 4 lecture/laboratory **CL**

CIS 206 Web Foundations Site Development Certification. This course provides a review of the foundations of website development. This course prepares the student to take the CIW Web Foundations Site Development Associate Certification exam. It is recommended that students take this course the same semester as CIS 205 Internet Development I.
Co-requisite: CIS 205
1 credit = 1 lecture/laboratory

CIS 212 Server+ Certification. This course prepares students to sit for the CompTIA Server+ Certification examination. Server+ Certification validates technical competency and provides a broad awareness of server hardware, software, the physical working environment and disaster recovery concepts. Students will achieve technical competency of server issues and technology, including installation, upgrading, maintenance, and troubleshooting, thus developing skills that are sought by employers. This course is offered based on student demand.
Prerequisite: CIS 120 or ELT 160 or CIS 160
4 credits = 4 lecture/laboratory

CIS 221 Protocol Analysis. This is an advanced course intended for networking professionals and students who already grasp the general concepts of data communications and networking, but would like to use protocol analysis software to facilitate network design, trouble-shooting and security auditing. This course maps to the objectives for the Wireshark Certified Network Analyst examination. This course is offered based on student demand.
Prerequisite: CIS 223
4 credits = 4 lecture/laboratory

CIS 222 LAN Administration. This course provides students with knowledge and hands-on experience in installation, operation, administration and troubleshooting Microsoft’s Server Operating System. This course covers local area network (LAN) physical media, layer two architectures, structured wiring and network operating systems. The course examines the advantages and disadvantages of common cable infrastructure and provides guidelines for when each is appropriate. Virtual Local Area Networks (VLANs) and various forms of Ethernet technology are explained, such as Fast Ethernet. The curriculum emphasizes quantitative and communications skills as well as providing a foundation in business environments. Students will wire a network (using both copper twisted pair and fiber media), install and configure client computers

as well as the server network operating system. The course material will cover much of the information required in specific exams for the Microsoft's Certified IT Professional (MCITP) certification. Offered fall semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 223 TCP/IP Protocols. Almost all modern networks, including the Internet, use the TCP/IP protocol. This course covers the underlying applications, components and sub-protocols that make up the TCP/IP suite. This course will teach students to identify and use TCP/IP layers, components and functions. Navigation tools, TCP/IP services, utilities and troubleshooting methodologies are also covered. IP addressing including subnetting is extensively covered. Students will also learn routing and elements of Wide Area Networking. Offered fall semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 224 CCNA Certification. Building on concepts from prior networking courses, this class prepares students to sit for the Cisco CCNA certification examination. CCNA certification validates technical competency with Cisco IOS and routers and switches. Students will configure, use, maintain, administer and troubleshoot Cisco routers and switches. Offered winter semester only.
Prerequisite: CIS 222 and CIS 223 and CIS 225
4 credits = 4 lecture/laboratory

CIS 225 Network Security – Security+ Certification. This course exposes students to some of the security issues facing today's networks. The course will also feature a discussion of current events and recent security challenges. The course prepares students to sit for the CompTIA Security+ Certification examination. CompTIA Security+ is an international, vendor-neutral certification that demonstrates competency in network security, compliance, operational security, threats, vulnerabilities, application security, data security, host security, access control and cryptography. CIS 226 Advanced Security builds on the foundation laid by this course. Offered fall semester only.
Prerequisite: CIS 120
4 credits = 4 lecture/laboratory

CIS 226 Advanced Security - Certified Ethical Hacker. Building on material from CIS 225, this course prepares students to conduct penetration tests of corporate networks. Students will be taught not only to identify vulnerabilities, but also how to prevent or minimize them. Numerous labs introduce students to the software that is used to conduct penetration tests and to defend networks against malicious hackers. This course, along with the proper work experience, will prepare students to sit for the EC-Council's Certified Ethical Hacker (CEH) certification. This course is offered based on student demand - specifically in the spring session only.
Prerequisite: CIS 225 and CIS 233
4 credits = 4 lecture/laboratory

CIS 227A Special Topics in Networking. This course is an in-depth study or one or more current topics in Computer Information Systems. Topics will be selected by the discipline.
Prerequisite: None
3 credits = 3 lecture/laboratory

CIS 227B Special Topics in Networking. This course is an in-depth study or one or more current topics in Computer Information Systems. Topics will be selected by the discipline.
Prerequisite: None
4 credits = 4 lecture/laboratory

CIS 228A Special Topics in Cisco Networking. This course is an in-depth study of one or more current topics in networking with Cisco devices and tools. Topics will be selected by the discipline.
Prerequisite: CIS 120; other prerequisites may apply; see online schedule.
3 credits = 3 lecture/laboratory

CIS 228B Special Topics in Cisco Networking. This course is an in-depth study of one or more current topics in networking with Cisco devices and tools. Topics will be selected by the discipline.
Prerequisite: CIS 120: other prerequisites may apply; see online schedule.
4 credits = 4 lecture/laboratory

CIS 229A Special Topics in Networking Security. This course is an in-depth study of one or more current topics in Computer Networking Security. Topics will be selected by the discipline.
Prerequisite: CIS 120; other prerequisites may apply; see online schedule.
3 credits = 3 lecture/laboratory

CIS 229B Special Topics in Networking Security. This course is an in-depth study of one or more current topics in Computer Networking Security. Topics will be selected by the discipline.
Prerequisite: CIS 120; other prerequisites may apply; see online schedule.
4 credits = 4 lecture/laboratory

CIS 233 Linux+ Certification. This course prepares students to sit for the CompTIA Linux+ (powered by LPI) Certification examination. Linux+ Certification validates technical competency and provides a broad awareness of Linux operating systems. Students will install, configure, use, maintain, administer, and troubleshoot Linux systems. This course will cover a variety of distributions, including Red Hat/Fedora and SUSE. Offered winter semester only.
Prerequisite: CIS 130
4 credits = 4 lecture/laboratory

CIS 235 Internet Development II. This course focuses on the design of effective websites including page layout, navigation design and graphic design. The course includes design and development technologies such as Cascading Style Sheets, Dynamic HTML, multimedia and databases. Students will create their own Web pages and websites utilizing industry standard web development tools such as Adobe Dreamweaver. This course matches objectives for CIW Web Design Specialist certification. This course is a once-a-year offering.
Prerequisite: CIS 205
4 credits = 4 lecture/laboratory

CIS 236 Interactive Web Programming. This course provides an introduction to technologies and tools used to create dynamic, interactive websites. Both client side and server side technologies will be examined. Programming projects will emphasize

the usage of tools such as: Java, VBScript, JavaScript, PHP, ASP, Perl, Python, CGI or other technologies as available. Offered winter semester only.
Prerequisite: CIS 130 and CIS 260 or CIS 275
4 credits = 4 lecture/laboratory

CIS 237A Special Topics in Operating Systems. This course is an in-depth study of one or more current topics in computer operating systems. Topics will be selected by the discipline.
Prerequisite: CIS 130; other prerequisites may apply; see online schedule.
3 credits = 3 lecture/laboratory

CIS 237B Special Topics in Operating Systems. This course is an in-depth study of one or more current topics in computer operating systems. Topics will be selected by the discipline.
Prerequisite: CIS 130; other prerequisites may apply; see online schedule.
4 credits = 4 lecture/laboratory

CIS 238 Web Server Administration. This course explains the process of designing, installing and administering a real-world commercial web server. Students will work with the Linux operating systems and Apache Web Server, a combination that hosts the majority of websites on the Internet. Offered winter semester only.
Prerequisite: CIS 130 and CIS 202 and CIS 205
3 credits = 3 lecture/laboratory

CIS 239A Special Topics in Server Administration. This course is an-depth study of one or more current topics in operating system administration. Topics will be selected by the discipline.
Prerequisite: CIS 130; other prerequisites may apply; see online schedule.
3 credits = 3 lecture/laboratory

CIS 239B Special Topics in Server Administration. This course is an-depth study of one or more current topics in operating system administration. Topics will be selected by the discipline.
Prerequisite: CIS 130; other prerequisites may apply; see online schedule.
4 credits = 4 lecture/laboratory

CIS 247A Special Topics in Computer Applications. This course is an in-depth study of one or more current topics in Computer Information Systems. Topics will be selected by the discipline.
Prerequisites will be determined by course topic; see online schedule.
Prerequisite: CIS 200 or CIS 202 or CIS 205
3 credits = 3 lecture/laboratory

CIS 247B Special Topics in Computer Applications. This course is an in-depth study of one or more current topics in Computer Information Systems. Topics will be selected by the discipline.
Prerequisites will be determined by course topic; see online schedule.
Prerequisite: CIS 200 or CIS 202 or CIS 205
4 credits = 4 lecture/laboratory

CIS 252 Web Client Programming. This course provides an introduction to technologies and tools used to create dynamic, interactive websites. Client side (browser) technologies will be examined. Programming projects will emphasize the

usage of tools such as: JavaScript, AJAX, Silverlight or other technologies as available. This course matches objectives for the CIW JavaScript Specialist Certification. This course is a once-a-year offering.
Prerequisite: CIS 150 and CIS 205
4 credits = 4 lecture/laboratory

CIS 254 Web Server Programming. This course provides an introduction to technologies and tools used on web servers to create dynamic, data driven websites. Programming projects will emphasize the usage of tools such as: PHP, MySQL, Python, CGI or other technologies as available. Students will work with the Linux operating system and Apache Web Server. This course is a once-a-year offering.
Prerequisite: CIS 205 and CIS 260 or CIS 205 and CIS 275
4 credits = 4 lecture/laboratory

CIS 260 Computer Programming I. This course provides an introduction to fundamental concepts of computer programming, problem solving techniques and algorithm development. Programming projects will emphasize the syntax and usage of a high level programming language, along with analysis, design and testing. This course is a once-a-year offering.
Prerequisite: CIS 150
4 credits = 4 lecture/laboratory

CIS 261 Data Structures Programming. This course explores the techniques and data structures used in the development of complex software projects. Through lectures and programming projects, this course will cover elementary data structures, dynamic memory allocation, sorting and searching, recursion, algorithmic analysis and object oriented programming techniques. Offered winter semester only.
Prerequisite: CIS 260. NOTE: MTH 113 or higher is strongly recommended.
4 credits = 4 lecture/laboratory

CIS 264 C++ Programming. This course provides an introduction to fundamental concepts of computer programming, problem solving techniques and algorithm development. Programming projects will emphasize the syntax and usage of the C++ programming language, along with analysis, design and testing.
Prerequisite: MTH 114 or CIS 260
4 credits = 4 lecture/laboratory

CIS 267A Special Topics in Computer Programming. This course is an in-depth study of one or more current topics in Computer Information System programming. Topics will be selected by the discipline.
Prerequisite: CIS 150; other prerequisites may apply; see online schedule.
3 credits = 3 lecture/laboratory

CIS 267B Special Topics in Computer Programming. This course is an in-depth study of one or more current topics in Computer Information System programming. Topics will be selected by the discipline.
Prerequisite: CIS 150; other prerequisites may apply; see online schedule.
4 credits = 4 lecture/laboratory

CIS 275 Visual BASIC Programming. Fundamental concepts of computer programming, problem solving techniques and algorithm development as well as the syntax and usage of the Visual BASIC programming language in the Graphic User Environment are addressed in this class. Topics include visual BASIC controls,

control properties, application planning and design, user interface creation, variables, symbolic constants, selection structures and repetition structures. The advanced topics include sequential access files, menus, dialog boxes, error trapping, random access files, control arrays, variable arrays and database access. This course is a once-a-year offering.
Prerequisite: CIS 150
4 credits = 4 lecture/laboratory

CIS 282 Project Management – Project+ Certification. This course prepares students to sit for the CompTIA Project+ Certification examination. Students will learn the common project management terminology and the technical knowledge and skills required to initiate and develop a project. Students will create scope statements, management plans, statements of work, schedules and other relevant documents. Budgeting and managing project relationships are also covered. Emphasis is placed on finalizing and measuring the success of projects. Real-world examples and case studies will be used throughout the course. Students will use Microsoft Project and Microsoft Visio during this course. Offered fall semester only.
Prerequisite: CIS 115 and MTH 102 or higher
4 credits = 4 lecture/laboratory

CIS 284 Microcomputer Applications Specialist. This course is designed to develop management skills needed in the small to mid-sized computer installation environment. This will include the study of management (personnel, hardware and software) through research, lecture and scenarios. This course will include the development of the communication skills needed to present technical recommendations to non-technical staff. Through lecture, group work, student led presentations and research, the student will employ a variety of software programs (word processing, presentation graphics, spreadsheets, databases and flowcharting) to reach these objectives. Offered winter semester only.
Prerequisite: CIS 115 and CIS 130
4 credits = 4 lecture/laboratory

CIS 286 Network Analysis and Design. This capstone course explains the process of analyzing and designing a new network or network upgrade. It presents a step-by-step approach that breaks this complex process into five major phases, each with its own inputs, tasks and outputs: 1). Requirements Gathering, 2). Analysis, 3). Logical Design, 4). Physical Design and 5). Installation and Maintenance. By focusing on user requirements first, students will learn to create an effective solution. Offered winter semester only.
Prerequisite: CIS 222 or CIS 225 or CIS 282
4 credits = 4 lecture/laboratory

CIS 290 A-D Computer Co-op/Internship. This work placement is designed for the Computer Information Systems student that has completed at least all the CIS classes listed in the first and second semesters of one of the four CIS programs. The work placement may be either a paid (co-op) or non-paid (internship) placement. Students will be individually placed into positions involving operations, programming, networking or systems analysis as fits their needs/ desires. One credit will equal 60 hours of placement. Students may receive credit for up to four CIS 290 courses A, B, C, D at the rate of one credit per course.
Prerequisite: Approval of CIS faculty co-op internship coordinator and sophomore status in one of the Computer Information Systems programs. Grade of C or better in CIS courses and competency courses required for entry into this course.
1 credit each = 1 lecture/laboratory

CIS 297 The CIS Professional. In this capstone course, students will prepare for employment as CIS professionals by developing a current resumé and portfolio, and discussion of issues pertinent to the CIS workplace and employability will be included. Students should not take this course until they are within one year of obtaining their degree. Offered winter semester only.
Co-requisite: CIS 130 and 20 credit hours completed
1 credit = 1 lecture/laboratory

CRIMINAL JUSTICE
Social Science Department (810) 989-5707

CJ 101 Introduction to Criminal Justice. This course is an introduction to the history, philosophy, concepts and problems of law enforcement. A survey is made of the various fields of law enforcement and corrections in the United States. Professional career opportunities are reviewed.
Prerequisite: None
3 credits = 3 lecture

CJ 104 Delinquency Prevention and Control. This course provides students with a basic knowledge of the problems of juvenile delinquency. The history of the different concepts of delinquency and the juvenile justice system will be discussed. Juvenile delinquency will be examined in reference to its impact on society and the various theoretical approaches developed to explain its causes. Juvenile court procedures, the police role in dealing with delinquent behavior and the rights and liabilities of juveniles will be investigated.
Prerequisite: None
3 credits = 3 lecture

CJ 105 Police Procedures. This course is designed to provide students with an orientation to patrol procedures. Areas examined are basic patrol operations and techniques to include juveniles, emergency preparedness, disaster control, explosive devices, domestic violence, plus civil disorder. Ethical police behavior and interpersonal communication are discussed in relationship to police procedures.
Prerequisite: None
3 credits = 3 lecture

CJ 109 Introduction to Private Security. This course is an introduction and career orientation to the field of private security. Topics include the basic principles of physical security, risk management systems, computer security, fire prevention and safety, and institutional security systems (industrial, commercial and institutional). This course is a once-a-year offering.
Prerequisite: CJ 101
3 credits = 3 lecture

CJ 119 The Court Function. This course is designed to cover arguments over the nature of justice; a brief history of the development of the Anglo-American legal system; basic tenets of American criminal law and procedure; the organization of courts, the powers, selection, training and professional orientation of key court personnel; and all the steps in the criminal justice process from arrest through the appeal; current developments in court technology and administration; and issues related to the discretion of court officials.
Prerequisite: CJ 101
3 credits = 3 lecture

CJ 121 Introduction to Corrections. This course is designed to introduce students to the historical and philosophical background of the field of corrections and to familiarize them with the legal processes involved: probation, imprisonment and parole. The role of officers and the rights of prisoners will be discussed and community-based corrections described.
Prerequisite: None
3 credits = 3 lecture

CJ 202 Criminal Law. This course is a study of substantive law as a means of defining and preserving social order. Sources of criminal law, classification of crimes against persons, property and public welfare; principles of criminal liability, elements necessary to establish crime and criminal intent, specific crimes and defenses, and constitutional limitations are examined.
Prerequisite: CJ 101
3 credits = 3 lecture

CJ 206 Traffic Law & Accident Investigation. This course is designed to familiarize the student with proper procedures for traffic control and enforcement. Specifically, the State of Michigan motor vehicle laws and procedures, arrests, citations, alcohol and accident investigation are examined.
Prerequisites: CJ 101
3 credits = 3 lecture

CJ 208A Field Service Observation. This course is designed to broaden the educational experiences of the student through observation. The agencies involved in the observations may vary as to the interest of the student.
Prerequisite: CJ 101 and CJ 105 or CJ 121
1 credit = 60 clock hours of observation plus four clock hours of contact with the field advisor
1 credit = 1 other (observation)

CJ 208B Field Service Observation. This course is designed to broaden the educational experiences of the student through observation. The agencies involved in the observations may vary as to the interest of the student.
Prerequisite: CJ 208A
1 credit = 60 clock hours of observation plus four clock hours of contact with the field advisor
1 credit = 1 other (observation)

CJ 210 Dynamics of Substance Abuse. This course is designed to equip students with up-to-date knowledge concerning the historical and cultural attitudes toward use of alcohol and other drugs, as well as the psychological and physical effects of their use and abuse. Social and political implications of drug abuse and available treatment modalities are also discussed.
Prerequisite: PSY 180 or permission of instructor
3 credits = 3 lecture

CJ 211 Police Organization, Systems and Issues. This course is designed to provide students with a basic orientation to government structure and law enforcement including the police and law, police in the criminal justice system, the diversity of the police establishment and the varieties of police at local, state and federal levels. It will examine the structure of law enforcement administrations, related human

resource issues especially including the selection process, management theories, organizational structures, ethical dilemma, civil liabilities, police subculture and behavior, and policing in the future.
Prerequisite: CJ 101 and CJ 105
3 credits = 3 lecture

CJ 213 Legal Aspects for Law Enforcement. This course is designed to provide students with constitutional issues regarding law enforcement. It will cover topics such as probable cause and reasonable suspicion, stop and frisk issues, border seizures and stationhouse detentions, arrests, seizures of personal effects, vehicle stops, inventory searches and vehicle searches. Additionally, it will cover areas such as plain view doctrine, open fields doctrine, the abandonment of property, lineups, photographic identifications and confessions and admissions.
Prerequisite: CJ 101
3 credits = 3 lecture

CJ 215 Basic Criminal Investigation. This course presents the basic principles of criminal investigation. Current investigative procedures used in handling of crime scene, interviewing and interrogation, suspects and witnesses, gathering and preserving evidence, conducting surveillances, writing reports, establishing the method of operations used to commit a crime and utilizing technical resources are examined. Basic lab techniques and procedures that are an integral part of an investigation are conducted.
Prerequisites: CJ 101 and CJ 105
3 credits = 3 lecture

CJ 220 Specific Offense Investigation. This course provides students with the techniques of investigating specific offenses to include arson, burglary, narcotic violations, larceny, criminal sexual conduct, robbery and homicide. Laboratory techniques and procedures that are an integral part of forensic science investigations are demonstrated. This course is a once-a-year offering.
Prerequisite: CJ 101 and CJ 105
3 credits = 3 lecture

CJ 222 Client Relations in Corrections. This course will explore the social and cultural differences that exist between inmates and corrections officers. Factors such as economic status, discrimination and minority membership as well as societal response to these factors will be emphasized. The role of the corrections officer within custodial care settings to deal effectively with inmate relationships will be discussed. This course is a once-a-year offering.
Prerequisite: CJ 121
3 credits = 3 lecture

CJ 223 Correctional Institutions/Facilities (Formerly CJ 123 and COR 107). This course is designed to prepare students for employment in the corrections system. It will explore the function of prisons, various rehabilitation programs, custodial care and prisoner rights. The organization and management of correctional institutions and their safety and security will also be described. Concerns about future developments and problems in the corrections system will be addressed.
Prerequisite: CJ 101 or CJ 121
3 credits = 3 lecture

CJ 224 Legal Issues in Corrections. This course will examine and analyze the roles of the legislature, courts, prosecutors and attorneys in the criminal process. This course will place special emphasis on legal concerns within the corrections system itself: the constitutional rights of prisoners and the potential civil liability that correctional facilities and corrections personnel face when those rights are violated. The impact of recent case law decisions and future development resulting from those decisions will be discussed.
Prerequisite: CJ 121
3 credits = 3 lecture

CJ 226 Client Growth and Development in Corrections. This course is intended for students requiring an understanding of human behavior, psycho pathology and treatment interventions, as they relate to the correctional client. This course will emphasize and differentiate between normal and criminal behavior and will define personality, social roles, criminal life styles and presenting biological, psycho social and sociocultural theories of normal and deviant human behavior. This course is a once-a-year offering.
Prerequisite: CJ 121
3 credits = 3 lecture

CJ 228 Probation and Parole. This course is designed to prepare students for employment in the Criminal Justice/Corrections field. It will introduce the student to the historical background and development of probation and parole from early history to the modern probation and parole system. Students will explore the court system. The juvenile justice system will be studied with juvenile probation and other available dispositions reviewed. The American probation system, community based corrections and parole and duties of the modern parole officer will be studied. This course is a once-a-year offering.
Prerequisites: CJ 121
3 credits = 3 lecture

CNC PROGRAMMER/MACHINIST TECHNOLOGY

Engineering Technology Department (810) 989-5754

MFT 110A Pre-Apprenticeship Skills – Measurements & Calculations. This course presents math concepts necessary to be successful in an industrial environment. The course will review the basics of whole number, fraction and decimal operations, and then apply these concepts to industrial settings. These applications will include: using a calculator, calculating percentages and/or decimals, calculating hole locations, taking measurements with steel rules, micrometers and calipers, etc.
Prerequisite: None
1 credit = 1 lecture

MFT 110B Pre-Apprenticeship Skills – Graphing & Problem Solving. This course presents the basic principles of elementary algebra as applied to an industrial setting. These concepts will include signed numbers, simple equations, graphs and coordinate systems, ratios and proportions.
Prerequisite: MFT 110A
1 credit = 1 lecture

MFT 110C Pre-Apprenticeship Skills – Areas & Volumes. This course presents the basic principles of geometry, to include lines, angles and triangle side/angle relationships.
Prerequisite: MFT 110B
1 credit = 1 lecture

MFT 110D Pre-Apprenticeship Skills – Spatial Skills. This course presents the basic principles of trigonometry, to include finding sine, cosine and tangent of a given angle, solve for the missing side of a triangle, use the Pythagorean Theorem, introduction to the use of Sine and Cosine Laws.
Prerequisite: MFT 110C
1 credit = 1 lecture

MFT 111 Machine Tools. This introductory course focuses on internationally accepted machining practices and measurement systems (inch/pound and metric). Lab projects include operating the mill, lathe, saw and drill press.
Prerequisite: None
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory **GA**

MFT 150 Manufacturing Technology Co-op. This course includes six weeks or more work experience in industry that provides an intensive but varied experience in the program of study for which the student is enrolled. This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training program developed which is agreed upon by the student, employer and the college.
Prerequisite: Permission of instructor
1 to 6 credits = 1 to 6 lecture/laboratory

MFT 190 Machinery's Handbook. The focus of this course is the use of the Machinery's Handbook as a reference tool. Topics include mathematical tables and formulas, inch/metric conversions factors, strength of materials, lubricants, fasteners, cutting tools, speeds and feeds, classification of ferrous and nonferrous material, service texture symbols, heat treatment and many other subjects related to manufacturing.
Prerequisite: MTH 101
1 credit = 1 lecture

MFT 211 Beginning NC/CNC Programming. This is a beginning course in Numerical Control and Computerized Numerical Control Programming using a 3-axis mill.
Prerequisite: MFT 111
3 credits, plus 1 contact hours = 2 lecture, 2 laboratory **CL**

MFT 213 CNC Surfacing Applications. This course focuses on the generation and machining of surfaces and solids. Students will use MasterCam Software to design and machine surfaces and solids.
Prerequisite: MFT 211 or industrial CNC mill work experience
2 credits, plus 1 contact hour = 1 lecture, 2 laboratory

MFT 214 Machine Tool, Advanced. This course is a continuation of MFT 111 with greater emphasis placed on development of skills in machine operations. Solutions of problems that arise in the planning and tooling for production of parts, economy, design, estimating and processing and planning are developed and analyzed.
Prerequisite: MFT 111
4 credits, plus 2 contact hours = 2 lecture, 4 laboratory

DRAFTING AND DESIGN (See Engineering Graphics)

EARLY CHILDHOOD EDUCATION
Social Science Department (810) 989-5707

ECE 105 Introduction to Early Childhood Education. This course will introduce students to the field of early childhood education and the need for educated early childhood professionals. Emphasis is on the professional aspects of early childhood education and child care including historical perspectives, contributions in the field, current practices and trends, understanding the various roles of the early childhood settings and identifying quality components of such. This course will benefit both future and present early childhood professionals. Students are required to observe various early childhood settings/facilities and interview early childhood professionals working in the field.
Prerequisites: None
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 108 Caring for Infants and Toddlers. This course will introduce students to the essentials of infant and toddler growth and development and the specialized care-giving skills needed to work effectively with the zero to three population. Emphasis is on developmental milestones; developmentally appropriate practice; standards of quality care; and current theories, research and findings related to infants and toddlers. Students will explore the various domains of development including: physical (fine and gross motor); cognitive; emotional; social; and language, as well as gaining an understanding of the "whole" child. This course will benefit early childhood professionals working with infants and toddlers, as well as parents of infants and toddlers.
Prerequisites: None
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 109 Working with School-Age Children. This course will introduce students to the care and teaching of school-age children and youth in out-of-school environments, including before- and after-school, holiday and summer programs. Emphasis is on the needs and the development of school-age children; standards of quality care; and best practices. This course will benefit early childhood professionals and others working with school-age children. Students will explore various current issues and conditions many children face today. Other topics include developmental theories and theorists; programming and administration, activities and curriculum planning; family and community involvement; and program accreditation.
Prerequisite: None
3 credits = 3 lecture
NOTE: Students may clock hours toward child care licensing requirements for Michigan and renewal of CDA.

ECE 200 A-D Early Childhood Education Practicum. This course will serve as a description for 200A, 200B, 200C and 200D. Students will integrate college classroom instruction with on-the-job learning through a required 64-hour practicum experience. Students will select a licensed and instructor-approved child care facility and will spend three to five hours per week over the course of the semester in the child care facility gaining direct experience working with young children. At the end of the semester, students will evaluate their experience and performance, as well as submitting journal entries and time sheets. This course must be taken concurrently with ECE 108, 109, 204, 205, 206 or 211 unless instructor permission is granted. If desired, students may take each credit at a different location to broaden their experience and knowledge for a maximum of four credits total.
Prerequisite: ECE 105 or permission of instructor
1 credit = 1 lecture/laboratory
**Students may clock hours of experience toward completion of the CDA credential.*

ECE 204 Health, Safety & Nutrition for Young Children. This course will provide a comprehensive examination of the critical issues related to children's health, safety, and nutrition and the development of practical strategies for creating safe and healthy environments for young children. Emphasis is on the importance of the role early childhood professionals play in promoting good health and life-long healthy attitudes and practices for young children. This course will benefit early childhood professionals currently working with young children, those new to the field, as well as parents of young children. Topics include SIDS, FAS/FAE; HIV/AIDS; child abuse and neglect; health appraisals and assessment tools; allergies; communicable and acute illnesses (identification and management); management of accidents and injuries; basic concepts of food, nutrition and menu planning; and educational activities and experiences for children.
Prerequisite: ECE 105
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 205 Supportive Learning Environments for Young Children. This course will focus on creating and maintaining a safe, healthy and supportive learning environment for young children. All aspects of the early childhood setting will be explored, including physical room arrangement, floor plan and use of space; learning center areas or stations; schedules and daily routines; appropriate guidance and discipline techniques; social-emotional aspects and climate; and atmosphere. Emphasis is on meeting the physical needs of young children. Additional topics include the importance of play; physical/motor development and developmentally appropriate activities; nutrition/ cooking experiences; methods of observing and recording a child's development; and establishing productive relationships with parents.
Prerequisites: ECE 105
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 206 Developmental Curriculum for Young Children. Students will gain fundamental knowledge and skills in planning developmentally appropriate curriculum and activities designed to enhance development and foster competence in all areas of the young child. This course will focus on identifying and planning developmentally

appropriate activities for young children. Additional topics include lesson plans; theme/unit development; methods and skills which enhance children's development; dynamics of planning and conducting group activities and group management; appropriate learning materials and equipment; multi-cultural and anti-bias curriculum; communication skills; language and literacy; math, science and social studies; songs and music; and the creative arts.
Prerequisites: ECE 105. NOTE: ECE 205 is recommended.
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 207 Child Development Associate (CDA) Assessment Preparation. This course is designed to assist and support students planning to complete the National Child Development Associate (CDA) Credentialing Program. Students will examine the CDA Credentialing qualifications, process, procedures and competency statements as specified by the National Credentialing Program. The instructor/field advisor will monitor and guide students in the fulfillment of national credentialing requirements. Course meets CDA requirements for formal child care training and education in content area maintaining a commitment to professionalism. Offered winter semester only.
Prerequisites: CDA candidates must have completed or be in the process of completing (within the past five years) 120 clock hours of formal child care training and education, with no fewer than 10 clock hours in each of the eight content areas outlined by the National Credentialing Program. CDA candidates must be currently working with young children in an appropriate child care setting. See ECE discipline coordinator.
Prerequisites: ECE 105 and ECE 205; may be taken concurrently with ECE 206.
3 credits = 3 lecture/on-site visitations

ECE 211 Creative Art for Young Children. This course will give students the knowledge and tools needed to develop rich, meaningful activities that integrate art into the early childhood curriculum. This course will benefit early childhood professionals currently working with children ages one through eight, as well as those new to the field. Emphasis is on developmentally appropriate practices and designing safe, open-ended art experiences and activities. Students will explore a variety of art mediums appropriate for young children, including drawing, collage, painting, play dough and clay, printmaking, fiber art, sculpture, group art and art for dramatic play. Other topics include: children's artistic development; the creative process; child-centered and child-directed activities; thematic teaching; and integrating art with language arts, music, science, math and social studies.
Prerequisite: ECE 105
3 credits = 3 lecture
NOTE: Students may clock hours of formal child care training and education toward completion of CDA, renewal of CDA and child care licensing requirements for Michigan.

ECE 275 Early Childhood Program Administration. This course examines the administrator's role in directing an early childhood program or child care center. Emphasis is on the range of administrative responsibilities related to creating, operating and maintaining a successful, high quality early childhood program/center. Topics include: budget, finances and funding; interpersonal skills; leadership styles and roles; licensing, credentialing and accreditation; marketing; organizing, planning and equipment; policy development; staffing - selection, supervision and training;

and parent/family involvement and education. This course will benefit both future and present early childhood program administrators, directors and assistant directors. Offered fall semester only.
Prerequisite: Any ECE class or instructor permission
3 credits = 3 lecture
NOTE: *Students may clock hours of formal child care training and education toward completion or renewal of CDA Credential and child care licensing requirements for Michigan.*

ECONOMICS **(See Business Administration and Economics)**

EDUCATION
Social Science Department (810) 989-5707

ED 100 Methods of Learning and Tutoring. This course is for new and current paraprofessionals, teacher aides, trainers and prospective teachers. It is an introduction to the methods and techniques of teaching and tutoring various subjects to small groups and individuals. Students will demonstrate an ability to assist or facilitate learning for a K-12 student. Students will receive instruction enhancements using techniques in multiple intelligences, learning styles, brain-based instruction, and emotional intelligences. Other training will include approaches to instruction for the K-12 student in reading, writing and mathematics.
Prerequisite: None
3 credits = 3 lecture

ED 101 Introduction to a Career In Teaching. This course is an introduction to the purposes and functions of education in American society for those planning a career in teaching or other educational service occupations. The course addresses issues such as the education of a prospective teacher, the rights and responsibilities of students and teachers, the history of education, school reform, teacher certification, financing public education and the purposes of schooling and curriculum. The course is designed to answer the student question of “why teach” and to assist students in their decision to pursue a career in education. Twenty hours of observation in K-12 settings is required. State laws may require a background check and finger-printing. Students are responsible for paying fees required for the background check.
Prerequisite: None
3 credits = 3 lecture

ED 120 Educational Behavior Management. This course will explore how to connect issues in behavior management and discipline to current themes in curricular design. Issues will also include hands-on practice with techniques addressing the developmentally challenged learner. Strategies of positive and productive management to enhance learners’ behaviors will be role-played to promote meaningful learning and critical thinking. Topics will include peer mediation, “I Care” philosophy and The Theory of Constraints.
Prerequisite: None; students are strongly encouraged to take PSY 210 or PSY 220 prior to this course
3 credits = 3 lecture

ED 162 Integrative Technology in the Classroom. This course will give students the practical, hands-on training and experience in several areas of classroom technology including using word processing software and external equipment including image

scanning, digital painting, digital photography and image projection; slide shows with software; desktop publishing software to create several fliers, newsletters and other communication materials for classroom use and parent communication; creating classroom management spreadsheets for grade books and graphic reporting; experiencing telecommunications in classroom research and lesson delivery by using the Internet, email, virtual field trips, interactive television, and other web resources.
Prerequisite: CIS 115
4 credits = 4 lecture/laboratory

ED 200A-D Education Observation Field Placement. This course will serve as a description for ED 200A, 200B, 200C and 200D. This course will integrate weekly college classroom instruction with on-location learning through a required 64-hour practicum experience. Students will select a K-12 classroom with a certified teacher or paraprofessional and will spend three to five hours per week over the course of the semester in the classroom gaining direct experience working with teachers, paraprofessionals and students. At the end of the semester, students will evaluate their experience and performance, as well as submitting journal entries and time sheets. It is recommended that students take each credit at a different location and classroom to broaden their experience and knowledge for the credits required. Students will be required to show proof of a negative TB test (1 year or newer) prior to beginning their observation. It is recommended that students successfully complete the Michigan Basic Teacher Skills Test.
Prerequisite: None
Co-requisite: ED 100 or ED 101
1 credit, plus 2 contact hours = 1 lecture, 2 laboratory

ED 205 Integrative Arts in the Classroom. This course offers students the opportunity to observe and participate in the fine arts and to apply this coursework to a pre-K-12 classroom. Students will be encouraged to attend and participate in fine arts activities, as a group and/or individually. Students will create a portfolio of multiple arts activities that assist in the development of basic learning skills in a pre-K-12 classroom. This course integrates the development of academic skills with creative abilities using the fine arts that benefit various learning styles and multiple intelligences.
Prerequisite: None
3 credits = 3 lecture

ED 220 Introduction to Exceptional Learners. This course addresses the physical, psychological, social and educational factors related to exceptional individuals, including those who experience giftedness as well as those who experience disability. Students will be afforded the opportunity to identify, evaluate and modify their personal attitudes and beliefs regarding exceptionality. This course will benefit those who are paraprofessionals, teachers, parents or any of the human service careers working within a teaching/learning setting.
Prerequisite: ED 100 or ED 101
4 credits = 4 lecture

ELECTRONICS
Engineering Technology Department (810) 989-5754

ELT 105 Fundamentals of Residential Wiring. This course introduces students to basic electricity and its applications. A study of practical circuits used in residential building wiring, national electrical code and local code requirements, safety, blueprint reading and practical laboratory experiences are also featured.
Prerequisite: None
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

ELT 130A Fundamentals of Direct Current Electronics. This is a basic course to introduce students to analog electronics. Emphasis is placed on D.C. concepts. Topics include resistive, capacitive and inductive components in series and parallel, D.C. combinations, ohms Law, Kirchhoff's current and voltage laws, the voltage divider rule and RC time constants. Students will build and troubleshoot D.C. circuits using a digital multimeter and oscilloscope.
Prerequisite: MTH 101 or higher
2 credits, plus 1 contact hour = 1.5 lecture, 1.5 laboratory
GA with ELT 130B and ELT 131

ELT 130B Fundamentals of Alternating Current Electronics. This is a basic course to introduce students to the many uses of alternating current. Students will learn how to use transformers, function generators and the oscilloscope in testing A.C. circuits built in lab. Students will also learn A.C. concepts including reactance, resonance, tuning, AC to DC conversion, isolation and safety.
Co-requisite: ELT 130A
2 credits, plus 1 contact hour = 1.5 lecture, 1.5 laboratory
GA with ELT 130A and ELT 131

ELT 131 Semiconductor Devices and Circuits. This course focuses on semiconductor diode and transistor theory, filter circuits, power supplies, transistor parameters, load lines, biasing, amplifier tests and measurements, A-C circuit analysis of voltage and current operational amplifiers.
Prerequisite: ELT 130A and ELT 130B
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory
GA with ELT 130A and 130B

ELT 135 Digital Circuits. This is a basic course to introduce students to digital electronics. Topics include basic logic gates, the binary number system, Boolean logic, flip-flops, shift-registers, BCD decoder driver circuits, encoders, multiplexers, analog-to-digital converters, digital-to-analog converters, seven-segment displays and memory devices.
Prerequisites: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

ELT 150 Electronics Technology Co-op. This course consists of work experience in industry (each 80 hours of work experience related to the objectives equals 1 credit). This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training agreement developed which is agreed upon by the student, employer and the college. Special requirements may be necessary.
Prerequisite: ELT 131 and ENG 101 or ENG 101T and MTH 102 or higher (GPA> 2.5 in major area of study) and permission of instructor.
1 to 6 credits; 80 hours of work experience = 1 credit

ELT 155 Assembling a Computer. This is an introductory course on how the computer's major components work at the hardware level. Students will learn the basics of assembling, maintaining and repairing a computer. Topics include the power system, motherboard, BIOS, floppy drives, hard drives, limited peripheral device exposure, memory and limited troubleshooting. This course prepares the student to take the A+ Certification course for more detailed instruction. It is recommended that students who have completed ELT 160 do not take this course.
Prerequisite: None
1 credit = 1 lecture/laboratory

ELT 160 A+ Certification. This is an introductory course on how the computer works at the hardware level. Students will learn the basics of upgrading, maintaining and repairing a computer. Topics include the system board, BIOS, DOS, floppy drives, hard drives, peripheral devices, memory, troubleshooting, supporting Windows and others. This course prepares the student to take the A+ Certification exam. This course is the same as CIS 160.
Prerequisite: None
4 credits = 4 lecture

ELT 231 Industrial Electronics. The physical considerations involved in the industrial applications of solid state devices are discussed and analyzed, along with rectifier circuits, amplifiers, oscillator control circuits, electronic motor control, servo-mechanisms, pressure, temperature and optical devices.
Prerequisite: ELT 131
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory **CL CT**
OC if taken with ELT 236

ELT 232 Communications Circuits. This course is a survey of analog and digital communications circuits, antennas, transmission lines, frequency spectrum and sending and receiving equipment. Fiber optics and error detecting codes will be covered. This course is a review and culmination of basic electronic principles obtained in previous electronic courses. Offered winter or spring semester only.
Prerequisite: ELT 131
3 credits = 3 lecture

ELT 232L Communications Circuits Lab. This course requires a student to assemble, test and analyze digital and analog communication circuits. These circuits include the following: frequency multipliers, AM and FM modulation and demodulation circuitry, frequency shift keying, pulse width modulation, time division multiplexing and fiber optics. Offered winter or spring semester only.
Prerequisite: ELT 131
1 credit, plus 1 contact = 2 laboratory

ELT 236 Microcontrollers: Energy Control Systems I. This course introduces students to the programming of a Stamp Microcontroller using P-Basic language. Programs will be written on a PC and downloaded to the Microcontroller. Hardware such as a photovoltaic tracking energy system and a 3-phase wind turbine will be controlled by the Microcontroller. Data is logged by sensors and sent to the PC for real time display and printing when needed. Wiring concepts and formulas for all circuits are presented and used in the laboratory exercises in this course. Completion of a capstone team energy project and report is required.
Prerequisite: ELT 130A and ELT 130B
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory **CL CT**
OC with ELT 231

ENGINEERING GRAPHICS
Engineering Technology Department (810) 989-5754

EG 110 Introduction to Drafting. This course offers an introduction to the use of drafting instruments, along with drills in geometric constructions; practice in lettering, reading and checking of drawings; principles of orthographic projection; practice in making of working drawings, and drafting practices in manual representation.
Prerequisite: None
2 credits, plus 1 contact hour = (1 lecture, 2 laboratory)

EG 111 Fundamentals of Computer-Aided Drafting. This course offers an introduction to the use of AutoCAD focusing on geometric construction and editing tools. The students will learn how to make the transition from traditional manual drafting techniques to computer-aided drafting practices. CAD provides the students with a wide range of benefits including increased accuracy and productivity.
Co-requisite: EG 110
2 credits, plus 1 contact hour = (1 lecture, 2 laboratory)

EG 114 Blueprint Fundamentals. This is a course which is designed to help the student develop the basic skills required for industry print interpretation. A step-by-step approach is used to understand the "blueprint language" used in industry.
Prerequisite: None
2 credits, plus .5 contact hour = (2 lecture, .5 laboratory)

EG 115 Geometric Dimensioning and Tolerancing (Formerly DR 115 and MFT 115). This course is designed to develop technical knowledge and skills which will enable the student to prepare and interpret engineering drawings using the Geometric Dimensioning and Tolerancing System in accordance with the current ANSI Standards.
Prerequisite: EG 111 or EG 114, or equivalent
2 credits, plus .5 contact hour = (2 lecture, .5 laboratory) **GA**

EG 150 Drafting and Design Technology. A feature of this course is the six weeks or more work experience in industry in the program of study for which the student is enrolled. This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training program developed which is agreed upon by the student, employer and the college. Special requirements may be necessary.
Prerequisite: Permission of instructor
1 to 6 credits; 80 hours work experience = 1 credit

EG 161 Descriptive Geometry. Solutions to geometric problems by drawing board methods are studied. Topics include distance problems, angle problems, problems of intersection of lines and surfaces, area problems and development of surfaces. This course is a once-a-year offering.
Prerequisite: EG 110 or EG 111
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory

EG 162 Advanced Drafting with AutoCAD. This course will provide students with an overview of applications as they apply to the fields of engineering drafting and design. The students will learn and apply computer-aided design techniques and principles to create drawings and will learn the software capability of the system by generating, moving and editing the basic geometric elements. Students will become familiar with

system hardware such as CRT, keyboard, menu, etc. In addition to formal classroom lecture and demonstrations, students will use equipment such as a CAD system and other related hardware to complete a series of assignments.
Prerequisite: EG 111
4 credits, plus 2 contact hours = 2 lecture, 4 laboratory **CL**

EG 163 SolidWorks – Product Design & Development. This course provides an introduction to the process of developing solid models using a solid modeling program. Techniques for planning, developing, organizing and maintaining CAD files related to solid modeling will be addressed. Through lecture and hands-on exercises, students will explore the concepts and usage of explicit modeling, parametric modeling and feature-based modeling by using all of these tools integrated within SolidWorks.
Prerequisite: EG 110 or EG 111
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

EG 164 CATIA Basics. This course provides an introduction to the process of developing solid models using a hybrid solid modeler. Techniques for planning, developing, organizing and maintaining C.A.D. files related to solid modeling will be addressed. Through lecture and hands-on exercises, students will explore the concepts and usage of explicit modeling, parametric modeling and feature-based modeling by using all of these tools integrated within the CATIA Hybrid Modeler.
Prerequisite: None
2 credits, plus 2 contact hours = 1 lecture, 3 laboratory

EG 165 Interactive 3D Visualization. This course provides an introduction to the process of developing interactive 3D simulations and visualizations using EON Reality software. Students will learn how to incorporate solid models into a virtual workspace in order to animate real-time visualizations as are utilized in various capacities related to the manufacturing, architectural and gaming industries.
Prerequisite: None
2 credits, plus 2 contact hours = 1 lecture, 3 laboratory

EG 180 Engineering Graphics. This class focuses on selected graphical solutions in orthographic projection, pictorial presentation, visualization of projections, points, lines and planes in 3-D space. Studies surrounding primary and secondary projections, true lengths of lines, true size and shapes of planes, dihedral angles, visibility bearings, intersections and developments of surfaces using CAD System will be the focus of study.
Prerequisite: None
4 credits, plus 2 contact hours = 3 lecture, 3 laboratory

EG 265 Introduction to Mold Design. This course is designed to give students an understanding of the design, construction and terminology involved in designing and building plastic injection molds. Specific emphasis will be placed on standard design procedures used in designing injection molds today. This class will use computer aided drafting software.
Prerequisite: EG 162
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

EG 266 Jig/Fixture Design. The principles of tooling design for productive machining operations are the main focus of this course. Comparative analysis of standards and commercial work-holding devices for such operations as drilling, milling, turning and grinding (cams, links, motion and gear) are also designed along kinematic outlines. From shop sketches, actual layouts are formulated and assembled. From the design

drawing, working drawings are then produced following all present day drafting specifications, with emphasis on standard component parts and supply catalog. Offered winter semester only.
Prerequisite: EG 162
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

EG 267 Tool/Die Design. Principle concepts of material flow and properties along with fundamental die design pertaining to forming, cutting, drawing and piercing operations performed on standard industrial presses are reviewed. From actual part prints, actual die designs are formulated, working drawings are made, machine mechanisms are reviewed and reproduction is made. All practices are geared to those used in modern drafting room today. Offered fall semester only.
Prerequisite: EG 162
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

EG 270 Advanced Solid Modeling. This course provides an advanced study in the process of developing solid models using a hybrid solid modeler. Techniques for planning, developing, organizing and maintaining CAD files related to solid modeling will be addressed. Through lecture and hands-on exercises, students will explore the concepts and usage of explicit modeling, parametric modeling and feature-based modeling by using all of these tools integrated within SolidWorks.
Prerequisite: EG 163
2 credits, plus 2 contact hours = 4 lecture/laboratory

ENGLISH
Communications Department (810) 989-5578

Most college programs require a year of freshman English composition. Students should check their preferred program for recommendations. Each student is required to do the writing skills objective assessment given by the Achievement Center or submit ACT scores for initial placement. Placement is mandatory. The purpose of the writing skills assessment is to help determine the appropriate course selection in English for successful college work. Some students may follow a four course sequence - English 050 (basic writing skills), English 075 (basic writing skills II), English 101 (the writing process), and English 102 (advanced writing and research). Others need only a two course sequence - English 101 and English 102.

Composition courses are offered ranging from beginning composition through advanced writing and creative writing. These courses may be applied to most transfer programs and to a variety of two-year degrees. English 101, 101H, 102, and 102H meet the requirements for the transfer degrees of Associate of Arts and Associate of Science. English 101T and 104 do not, as a general rule, meet the requirements for these degrees.

Technical English courses are offered for the two-year vocational certificate and degree (AAS) programs. English 101, 101H, 101T, 102, 102H, and 104 meet the requirements for the non-transfer degrees, that is, the Associate in General Studies. Students planning to transfer should check program requirements at the transfer institution and consult with an academic advisor for transferability credit of English 101T and 104.

The Communications Department offers a wide variety of literature courses that will satisfy the degree requirements of most four-year colleges and universities. Students should check with their advisor at the college or at the transfer institution regarding the ability of the credits to transfer.

Students who have taken the ACT Reading and Writing tests may submit their scores to Enrollment Services in lieu of the COMPASS Writing Skills assessment. ACT scores must be less than three years old.

SC4 offers an English mobility clause during the first three weeks of the semester, where, upon agreement of both instructor and student, the student may move to a higher or lower level of English.

ENG 050 Basic Skills for College Writing. This course is designed to help students become competent writers at the college level. In addition to reviewing grammar and editing rules, students will learn about the writing process and how to write various types of sentences, paragraphs and multi-paragraph assignments for a college reader.
Prerequisite: None
3 credits = 3 lecture

ENG 075 Basic Writing Skills II. This is a basic writing course that can either be a continuation of English 050 for those students who are still not adequately prepared for the rigors of English 101, or a basic writing course for those students whose writing skills are too advanced for English 050, yet not strong enough for satisfactory completion of English 101. Emphasis will focus on the writing process used to produce 300-500 word paragraphs and 500-1,000 word essays, plus work with sentence combining to address grammatical errors and to develop the stylistic maturity needed for the writing required in English 101.
Prerequisite: None
3 credits = 3 lecture

ENG 101 English Composition I. This course includes various types of current prose, a study of English usage, and intensive practice in composition, all of which is designed to improve a student's ability to express ideas in a clear, logical and forceful manner.
Prerequisite: Successful completion of writing assessment or ENG 050 or ENG 075
3 credits = 3 lecture **WR**

ENG 101H Honors English Composition I. The course content consists of the concepts stressed in English 101 with greater depth in reading and composition, based upon a premise of superior preparation.
Prerequisite: Successful completion of writing assessment and acceptance into the Honors Program
3 credits = 3 lecture **WR**

ENG 101T Introduction to Writing for Technical Students. Written and oral work is chosen with special attention to the interest of the technically oriented student. There is work on technical research methods and report forms. Essays studied and written by the student meet the general requirements for writing competence.
Prerequisite: Successful completion of writing assessment or ENG 050 or ENG 075
3 credits = 3 lecture **WR**

ENG 102 English Composition II. This course will provide practice in writing extensive units of composition with emphasis on critical thinking skills. Through the study of a variety of texts, students will practice analytical and interpretative writing, including one formal source paper involving training in the use of library facilities and research techniques.
Prerequisite: ENG 101, 101H or 101T
3 credits = 3 lecture **WR**

ENG 102H Honors English Composition II. This course content offers an enriched approach to achieve the same objectives as English 102.
Prerequisite: ENG 101H or ENG 101 and acceptance into the Honors Program
3 credits = 3 lecture **WR**

ENG 104 Technical Report Writing. This course studies problems in technical communications. Oral and written reports along with memorandum, the prospectus and industrial letters of various types are stressed and practiced. ENG 104 will substitute for ENG 102 in technical programs.
Prerequisite: ENG 101, ENG 101H or ENG 101T
3 credits = 3 lecture **WR**

ENG 201 Advanced Composition. This course gives students further study and practice in various types of nonfiction writing to assist them in the mastery of clear, accurate form and effective style. Conducted largely in workshop format, the class encourages each student to develop writing abilities desirable for personal interest and vocational needs.
Prerequisite: ENG 101 and 102
3 credits = 3 lecture

ENG 202 Creative Writing. This course provides an introduction to the art of creative writing and its genres, in both prose and poetry. In addition to practicing various techniques, students will be given opportunities to write in areas of their own interest.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture

ENG 203 Advanced Creative Writing. This course offers the student who has successfully completed ENG 202 an opportunity for additional experience in creative writing.
Prerequisite: ENG 202
3 credits = 3 lecture

ENG 205 Introduction to Fiction. This course surveys fiction from American and international writers including Western and Third World short stories and short novels. Represented are works from England, Italy and Spain, from the Middle Eastern, Oriental and Central/South American countries.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **GA**

ENG 206 Introduction to the Drama. This course introduces students to the unique features and techniques of dramatic literature and to the historical development of theater from its classical roots to contemporary staging. The primary emphasis is to aid the student in a critical understanding of plays and playwrights and to encourage a continued interest in theater.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **GA**

ENG 207 Introduction to Poetry. This course introduces the student to the various specialized uses of language and poetic techniques, their patterns and styles. As a result, the student should be able to read and experience poetry with increased appreciation and understanding. This course is a once-a-year offering.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 208 Introduction to Mythology. This course will examine myths from diverse ancient and modern cultures through an analysis of common elements and functions. Historical, social and psychological approaches will be used to study the myths of Greece, Rome, Europe, Asia, India, as well as the Americas, showing the power of these stories for both individuals and cultures.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT GA**

ENG 210 English Literature I. This survey course covers major literary works from their beginnings through the 18th century, examining significant works and major authors to gain an understanding and appreciation of the literary contributions of Britain to world literature.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 211 English Literature II. This survey course concentrates on the poetry and prose of the major Romantic, Victorian, and modern authors. It is not necessary to have had English 210 before enrolling in the course.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 212 Shakespeare's Comedies, Tragedies and History Plays. The study of eight to ten of William Shakespeare's plays is designed to increase the students' critical appreciation of these works and to develop an awareness of the playwright/poet, his times and his influential place in world literature.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 220 American Literature I. Representative American literature, from its beginning to 1870, is studied while the literature is read for understanding and enjoyment. Emphasis is placed on the literary, cultural and social developments of the time periods.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 221 American Literature II. Representative prose and poetry in the United States from 1870 to the present time are studied while reading literature for understanding and enjoyment. Emphasis is placed on critical literary study and a survey of the cultural and social development of that period in America.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 225 African American Literature. This course provides a survey of African American literature from the mid-18th century to the present juxtaposed against a general history of the United States. Emphasis shall be placed upon analysis of thought, style and form with special focus upon the contributions made by this literature to the American literary canon and the American experience.
Prerequisites: ENG 101 and ENG 102
3 credits = 3 lecture

ENG 230 World Literature I. A study is made of major literary, philosophical and historical works from ancient times to 1600. Students will examine some of the great pieces of world literature to place them in their appropriate social and artistic periods and to recognize some of the great ideas of our culture.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **GA**

ENG 231 World Literature II. A study is made of major literary, philosophical and historical works from 1600 to modern time. Students will examine some of the great pieces of world literature to place them in their appropriate social and artistic periods and to recognize some of the great ideas of our culture.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **GA**

ENG 236 Women in Literature. Images of women in various literary works are studied to increase students' awareness of the ways in which women are characterized and the importance of women's roles in literature. As illustrated in selected readings for this class, the literature by and about women reflects various societal views of women's lives.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture

ENG 243 Modern Short Story. The short story is studied in-depth as a literary form with emphasis on analysis. Through reading, discussing and writing about historical, international and multi-cultural stories, students understand plurality of values, ethics and aesthetics related to society and culture.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **GA**

ENG 244 Modern Drama. Modern theatre and the works of significant leading playwrights around the world are the focal point of this course, beginning with the plays of Ibsen, father of modern drama. Such a study provides students with dramatic views of the human condition in the 20th Century and enables them to understand the contributions of modern theatre to the society to which it portrays.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT GA**

ENG 245 The Modern Novel. To acquaint the student with the influence of the modern novel on present-day writing, the course will include North American, English and continental novels beginning with 1850 and progressing to those since 1900. Attention is given to social background.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture

ENG 246 Modern Poetry. The course is intended to further the understanding of the content and forms of 20th Century poetry written in English. Attention is given to the writings of such poets as T.S. Elliot, Robert Frost, W.H. Auden, W.B. Yeats, Dylan Thomas, E.E. Cummings and the present-day poets.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 249 Foundation for Literary Criticism. Students will study techniques for analyzing literary work through close examination of basic critical works from early Greece through modern times with some practice in the writing of criticism.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 252 Children's Literature. Students learn critical evaluation of children's literature from pre-school through adolescence. Students read both classic and modern works as they learn criteria for evaluation of each genre.
Prerequisite: ENG 101 and ENG 102
3 credits = 3 lecture **CT**

ENG 255 Introduction to Film. This course will introduce students to general aspects of motion picture history, criticism and theory. The course will also provide students with opportunities for an increased appreciation of cinematic art through written and oral analysis of feature length movies. Readings and discussions of various terms, techniques and elements of film will be emphasized.
Prerequisites: ENG 101 and ENG 102
3 credits = 3 lecture

ENG 257 Selected Topics in Literature and Language. This course is an intensive study of one or more specialized interests in language and/or literature. Topics will be selected by the discipline.
Prerequisite: ENG 101 and ENG 102
1-4 credits = 1-4 lecture

FIRE SCIENCE TECHNOLOGY

Health and Human Services Department (810) 989-5675

FST 101 Introduction to Fire Protection. The course provides an introduction to the philosophy and history of fire protection, the history of loss of life and property by fire, a review of municipal fire defenses, a study of the organization and function of federal, state, county and private fire protection agencies and a survey of professional career opportunities.
Prerequisite: None
3 credits = 3 lecture

FST 102 Introduction to Fire Prevention. This course continues to survey the organization and function of fire prevention organizations; the inspections themselves; surveying and mapping procedures; the recognition of fire hazards; the engineering of a solution to hazards; the enforcement of solutions, and public relations as affected by fire prevention.
Prerequisite: None
3 credits = 3 lecture

FST 103 Introduction to Fire Suppression. Aspects of fire suppression organization, equipment and the characteristics and behaviors of fire are discussed and analyzed. Included is the study of fire hazard properties of ordinary materials, building design and construction, extinguishing agents, basic fire fighting tactics and public relations.
Prerequisite: None
3 credits = 3 lecture

FST 104 Fire Fighting Equipment, Tactics and Strategy. This course provides for the study of fire fighting equipment and manpower, basic fire fighting tactics and strategies, pre-planning fire problems, exposures, confinement, ventilation and salvage.
Prerequisite: None
3 credits = 3 lecture

FST 110 Fire Protection Chemistry. This course will explore the chemistry of materials and their physical properties as these subjects relate to the fire services. Topics will include matter and energy; units of measurement; states of matter; chemical reactions; the processes of combustion; heat and its effect; fire extinguishment and foam agents.
Prerequisite: None
3 credits = 3 lecture

FST 111 Incident Management for the Fire Service. This course will explore the incident management system, the functions of command, staging and sectorization, the missions of attack, search, backup, ventilation, exposure, extension, overhaul, salvage and rapid intervention, and the importance of benchmarks. Emphasis is placed on the 'everyday' type of emergency response versus the 'Big One.'
Prerequisite: None
3 credits = 3 lecture

FST 112 The Legal Aspects of Public Fire Service. This course will inform the student of the present attitude of today's "suing society" and how it affects the public servant. The fire service is no longer exempt from lawsuits and this course uses actual case studies to prepare the firefighter to recognize and avoid potential legal problems.
Prerequisite: None
3 credits = 3 lecture

FST 201 Fire Department Organization and Administration. Fire department organization and administration - personnel, communications, equipment, maintenance, training, financing, records and reports - are covered in this course.
Prerequisite: None
3 credits = 3 lecture

FST 202 Building Construction. This course explores and reviews important areas of building construction, with emphasis placed on fire protection concerns, in addition to related statutory and suggested guidelines of construction that are both local and national in scope.
Prerequisite: None
3 credits = 3 lecture

FST 203 Hazardous Materials I. Material covered in this course includes the study of chemical characteristics and reactions related to storage, transportation and handling of hazardous materials, with examples including: hydrocarbons, hydrocarbon derivatives, flammable and combustible liquids, compressed gases, flammable solids, cryogenic gases and oxidizing agents. Emphasis is placed on emergency situations and mitigation of hazardous material incidents with an introduction to current regulations and standards.
Prerequisite: FST 110 or CHM 101
3 credits = 3 lecture

FST 205 Hazardous Materials II. A continuation of FST 203. Hazardous materials studied will be plastics, corrosives, unstable materials, radioactive materials, explosives, toxic materials and water/air reactive materials. Emphasis is placed on emergency situations and mitigation of hazardous material incidents.
Prerequisite: FST 203
3 credits = 3 lecture

FST 207 Post-Fire Investigation. This course covers basic fire investigation techniques, including determination of cause and origin; collecting, preserving and presenting evidence; conducting interviews; preparing reports and courtroom behavior.
Prerequisite: None
3 credits = 3 lecture

FST 208 The Firefighter at Risk. This course covers minimum standard requirements for a fire service occupational safety and health program. It also covers organization; training and education; vehicles and equipment; emergency operations; facilities safety, and medical and member assistance programs, in addition to the minimum criteria for emergency incident management.
Prerequisite: None
3 credits = 3 lecture

FRENCH
Communications Department (810) 989-5578

FR 101 Introductory French I. The essentials of the French language and culture are introduced in this course. Students begin to achieve basic facility in speaking, understanding, reading and writing the language as well as acquiring insight into French life and customs. Audio materials are employed to enhance the students' speaking and comprehension skills.
Prerequisite: None
4 credits = 4 lecture **GA**

FR 102 Introductory French II. The course completes the introductory level of the French language. The student is expected to have acquired basic speaking and comprehension skills, knowledge of grammar of the language, as well as the ability to read and write simple prose and to express ideas in writing. Continued use is made of audio materials. The course is open to students who have completed one semester of the language in college or one year in high school.
Prerequisite: FR 101
4 credits = 4 lecture **GA**

FR 203 Intermediate French I. A systematic review of the principles of French grammar is undertaken. Selections are read from representative French writers. Vocabulary enrichment and further practice in speaking, understanding and writing are provided. The course is open to students who have completed one year of college French or two years of high school French.
Prerequisite: FR 102
4 credits = 4 lecture **GA**

FR 204 Intermediate French II. More extensive reading of representative French writers is undertaken along with continued development and review of the communications skills. The course is open to students who have had three semesters of college French or three years of high school French.
Prerequisite: FR 203
4 credits = 4 lecture **GA**

FR 257 Selected Topics in French. This course is an intensive study of one or more specialized interests in literature, language and/or culture. Topics will be selected by the discipline. Those students planning to transfer and use this course as an elective for a French major or minor will be expected to do their coursework in French. Depending on the course, the instructor may also give alternative assignments in English to students interested in French culture and literature who are taking the course for electives in the humanities.
Prerequisite: FR 101 and 102 or permission of instructor
1-3 credits = 1-3 lecture **GA**

GEOGRAPHY
Math and Science Department (810) 989-5663

GEO 101 Earth Science. A description of the physical environment. The course offers a broad overview of the weather, climate, mountains, volcanoes, earthquakes, plate tectonics, soils, rivers, glaciers, wind and waves. Students will discover where these natural features exist and why they are there. Features of the natural landscape will be described with emphasis not only on identification, but also on the significance of location. This course is structured as a science course for non-science majors.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

GEO 102 Human Geography. Human geography studies the various cultural landscapes created by man around the globe. Such landscapes include patterns in agriculture, urban development, populations, economics, languages, religions, etc. This course gives the student an overview of many different cultures and the opportunity to compare them with their own. This course is a once-a-year offering.
Prerequisite: None
3 credits = 3 lecture **GA**

GEO 105 Introduction to Meteorology. This course is an introduction to meteorology – the study of the earth's atmosphere, its weather and climate. The course will include discussions of the atmospheric conditions that control and influence the earth's weather and climate and hands-on experience with the types of observations essential to grasp the fundamental principles of meteorology.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

GEO 137 Global Energy Resources. This course is everyday science for the non-science student. Worldwide, humans consume energy all day long. From gasoline in our cars to electricity in our microwaves and natural gas for our heat, we consume more and more each year. In this course, we will take a look at the simple science of electricity, the chemistry of biofuels, the "magic" behind manufacturing solar panels, the basic science of your car engine and the scientific concepts of harnessing hydrogen power, wind power, solar power, hydro-electric power, geothermal power

and others for our everyday needs. We will also research the formation of fossil fuels and the basics of fuel combustion. This course is designed as a lab science course for non-science majors.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory **GA**

GEO 210 Introduction To Geographic Information Systems (GIS). An overview introducing the basic concepts, techniques and applications of geographic information systems (GIS). The course includes the basic fundamentals of map reading and map interpretation and enables students to create spatial data files using current GIS software and to manipulate and analyze data.
Prerequisite: CIS 115
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

GEO 233 World Regional Geography. World regional geography is a course that is intended to acquaint students with the cultural and natural environments in which they live. The course is multi-faceted with a variety of different topics introduced, including landforms of various regions, religions, and languages of the people, basic history and its effects today, current events and regional points of interest.
Prerequisite: None
3 credits = 3 lecture **GA**

GEO 280 Geography of Michigan. This course investigates Michigan's natural land features, weather and climate patterns and the human imprint on the landscape including transportation, customs and the economy. Students will research the connection between the natural environment and past/present land uses. This course covers the geography of the Great Lakes themselves and investigates the relationship between human settlement patterns, natural resources and various types of land usage in Michigan.
Prerequisite: None
3 credits = 3 lecture

GEOLOGY
Math and Science Department (810) 989-5663

The geology courses are designed for students majoring in the field or can be used as a science elective.

GLG 101 Physical Geology. Physical Geology is the study of the processes that shape the rich diversity of landscapes on our planet. These processes fall under one of three major themes developed throughout the course: The Rock Cycle, Plate Tectonics and Geomorphology (the surface effects of water, wind and ice). The laboratory activities supplement lecture with practical experience in the identification and classification of minerals, rocks and landforms. Prospective teachers, geologists and those simply interested in learning more about their physical environment may find this course to be of interest.
Prerequisite: None
4 credits plus 1 contact hour = 3 lecture, 2 laboratory

GLG 102 Historical Geology. This course presents earth's history through geologic time as revealed in the rocks of its crust. Topics include radiometric dating, paleontology and plate tectonics. The laboratory activities offer practical experience

in the use of fossils, rocks and geologic maps to reconstruct the history of a region. An activity involving field work will be available to interested students. This course is a once-a-year offering.
Prerequisite: GLG 101
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

GLG 220 Paleontology. Paleontology is the study of the history of life on Earth. The remains of simple life forms are found in rocks as old as 3.4 billion years. Layered sedimentary rocks, deposited over the past 700 million years, contain an abundance of fossil remains of complex life forms from which plants and animals have descended. What we know of the evolutionary patterns of plants and animals comes from the study of these fossils. Biostratigraphy, the study of the special distribution and temporal relationships of fossils and fossil bearing rocks is an important component of geology. Laboratory and field activities supplement lecture with practical experience in the identification of fossil species and application of paleontological techniques. Prospective teachers, geologists, biologists and anyone interested in fossils and the history of life may find this course to be of interest.
Prerequisite: None (GLG 101 and GLG 102 is recommended)
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

GERMAN
Communications Department (810) 989-5578

GR 101 Elementary German I. The oral and written use of the language is emphasized in this course. Students use German in everyday situations and some discussion of German culture will be presented.
Prerequisite: None
4 credits = 4 lecture **GA**

GR 102 Elementary German II. This course is a continuation of GR 101. Conversation and written use of German is emphasized.
Prerequisite: One year of high school German or one semester of college German
4 credits = 4 lecture **GA**

GR 203 Intermediate German I. A review of German grammar is built around short stories, skits, drama and conversation. Both spoken and written competency is developed.
Prerequisite: Two years of high school German or one year of college German
4 credits = 4 lecture **GA**

GR 204 Intermediate German II. German grammar is reviewed and practiced. Some literary works are read and discussed along with the historic development of German and other languages. GR 203 is not a prerequisite for GR 204.
Prerequisite: Two years of high school German or 1 year college German
4 credits = 4 lecture **GA**

GR 257 Selected Topics in Literature, Language & Culture. This course is an intensive study of one or more specialized interests in literature, language and/or culture. Those students planning to use this course as an elective for a German major or minor when they transfer will be expected to do their coursework in German.

Depending on the course, the instructor may give alternative assignments in English to students interested in German culture and literature who are taking the course for electives in the humanities.
Prerequisite: GR 101 and 102 or permission of instructor
1-3 credits = 1-3 lecture

GOVERNMENT (See Political Science)

HEALTH EDUCATION
Nursing Department (810) 989-5675

HE 101 Math Related to Drug Administration. An introductory course to review basic mathematics as it relates to the health care profession and to prepare health care professionals to calculate medication dosages. Topics include a review of basic mathematics, introduction to the metric system, calculations using dimensional analysis including oral and parenteral medication, IV calculations and pediatric safe dose calculations.
Prerequisite: MTH 075 or appropriate placement by college assessment or ACT score
1 credit = 1 lecture **MA**

HE 102 Medical Terminology. This course is designed for health care students to enable them to acquire the knowledge and use of medical terms and abbreviations through a broad range of learning experiences.
Prerequisite: None
2 credit = 2 lecture

HE 103 Critical Thinking in the Healthcare Professions. This is a basic course to develop critical thinking skills and knowledge of the application of the skills in a variety of situations. The course includes development of thinking skills based on the eight elements of thought to guide learners through a variety of decision-making situations.
Prerequisite: None
2 credits = 2 lecture

HE 106 Interpretation of Laboratory and Diagnostic Tests in the Healthcare Professions. This is a basic course to develop knowledge and ability to interpret the findings of a variety of laboratory and diagnostic tests. The course includes client preparation pre-, intra- and post-test.The course includes interpretation of normal and abnormal values along with the pathophysiologic basis for the values.
Prerequisite: None
2 credits = 2 lecture

HE 141 Personal Health. This course is designed to develop attitudes, skills and habits favorable to healthful living. The mental, physical and social aspects of individual and community health are stressed.
Prerequisite: None
3 credits = 3 lecture

HE 205 Nutrition and Diet Therapy. This course is open to any student who is interested in nutrition and health. The course covers nutrition and diet therapy that relate to prevention and treatment of chronic and acute illness. Composition and

classification of foods, nutrients and their function; food and public health laws; and nutrition under special conditions are covered. Emphasis will be given to basic food constituents and their physiological relationships within the body.
Prerequisite: None
3 credits = 3 lecture

HE 210 Health Care Delivery Systems. This course will describe basic concepts of health care delivery systems in the United States, with an emphasis on the identification of types of services available, settings of care and utilization of health services.
Prerequisite: ENG 102 and BIO 271 or BIO 160
2 credits = 2 lecture

HE 224 Altered States of Adult Health (Formerly ADN 104). This course is for licensed health care workers, current ADN students, and pre-RN students to explore how alterations in structure (anatomy) and function (physiology) disrupt the human body as a whole. An understanding of how the human body uses its adaptive powers to maintain homeostasis is an important feature of this course. The focus will be on the clinical application of pathophysiological concepts and alterations.
Prerequisite: BIO 272 and 16 credit hours completed
4 credits = 4 lecture

HEALTH INFORMATION TECHNOLOGY
Health and Human Services Department (810) 989-5507

HIT 101 Introduction to Health Information Technology. This is the first course in the Health Information Technology (HIT) program, and is designed to introduce the student to the HIT profession and record keeping practices in healthcare. Emphasis will be placed on the role HIT professionals play in healthcare organizations, as well as health information infrastructure, record content in both electronic and paper records, documentation requirements, healthcare data sets, HIT-related taxonomies and an introduction to technology in HIT. Due to the foundational nature of the courses in the HIT program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: Acceptance to the Health Information Technology program
4 credits = 3 lecture, 1 laboratory

HIT 102 Legal Aspects of Health Information Technology. This course will examine and analyze the roles of legislature, the court system and attorneys in healthcare. Special emphasis will be placed on the partnership of these roles with the Health Information Technology (HIT) professional. This course will also highlight the many legal issues the HIT professional faces today by reviewing past and recent legislative and case law. Areas discussed will include legal vocabulary, the Health Insurance Portability and Accessibility Act (HIPAA), the Health Information Technology for Economic and Clinical Health (HITECH) Act, health information as evidence, confidentiality and security issues, release of health information, retention of health records and the Legal Health Record. Due to the foundational nature of the courses in the HIT program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: Acceptance to HIT program
3 credits = 3 lecture **CT**

HIT 103 ICD-9-CM Coding. This course will introduce the student to International Classification of Diseases, Ninth Revision, Clinical Modification diagnostic and procedural coding. Inpatient and outpatient coding rules, regulations and conventions will be addressed. Emphasis will be placed on both manual and computerized coding operations. Due to the foundational nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 101 and BIO 272 and PN 170
4 credits = 2 lecture, 2 laboratory

HIT 104 Ethical Challenges in Health Information Technology. This course will introduce the student to the many ethical dilemmas facing health information technologists today. Emphasis will be placed on issues surrounding professional ethics, fraud and abuse, medical code assignment, electronic medical records, information exchange, genetic testing, end-of-life decisions, research and decision support and management. Due to the foundational nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 101 and HIT 102
3 credits = 3 lecture **CT GA**

HIT 105 CPT/HCPCS Coding. This course will introduce the student to Current Procedural Terminology and Healthcare Common Procedure Coding System procedural coding. Rules, regulations and conventions will be addressed. Emphasis will be placed on both manual and computerized coding operations. Due to the foundational nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 101 and BIO 272 and PN 170
3 credits = 1.5 lecture, 1.5 laboratory

HIT 201 ICD-10-CM & ICD-10-PCS Coding. This course will introduce the student to International Classification of Disease, 10th Revision, Clinical Modification and International Classification of Diseases, 10th Revision, Procedure Coding System diagnostic and procedural coding. Inpatient and outpatient rules, regulations and conventions will both be addressed. Emphasis will be placed on both manual and computerized coding operations. Due to the nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 103 and BIO 280 and PN 170
4 credits = 2 lecture, 2 laboratory

HIT 202 Quality Management & Regulatory Compliance. In this course, students will be exposed to the quality management methodologies currently used in healthcare, with emphasis placed on the role of the health information technologist. Areas covered will include regulatory and oversight agencies, compliance surveys, quality management reporting, data analysis, statistics, utilization management, risk management, coding compliance, medical staff credentialing and the Meaningful Use requirement mandated by the federal government. This course will include a major group project to include class presentation. Due to the nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 103 and HIT 104
4 credits = 3 lecture, 1 laboratory **OC**

HIT 203 Reimbursement Methodologies. In this course, the student will be exposed to both the hospital and outpatient billing processes, including concepts related to revenue cycle management, coding compliance, third party payer audits and claims submission. Emphasis will be placed on manual and electronic claims submission, with hands-on experience. Due to the nature of the courses in the Health Information Technology program, courses are to be taken in the ordered described in the model schedule offered.
Prerequisite: HIT 103 and HIT 105
3 credits = 2 lecture, 1 laboratory

HIT 204 Health Information Technology Professional Practice Externship. During this externship experience, the student will be exposed to an actual Health Information Management (HIM) department office setting. Students will have the opportunity to work with individuals currently in the HIM field, and will have the opportunity to apply the Health Information Technology (HIT) theory learned in previous HIT courses. Due to the nature of the courses in the HIT program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 104 and HIT 106
3 credits (1 credit hour = 64 externship hours) = 3 laboratory

HIT 205 Health Informatics. This course introduces the student to information technology in healthcare. Discussion will include hardware, database architecture and both internet and intranet applications in Health Information Management (HIM), data security methodologies, data storage, data imaging and common software in HIM. Emphasis will be placed on the planning, design, selection, implementation, integration, testing, evaluation and support for electronic medical records. Due to the nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 202
4 credits = 4 lecture

HIT 206 Management for Health Information Technologists. In this course, students will explore management processes utilized by health information technologists. Emphasis will be on management of human resources and operations, as well as budgeting and operational financial management. Through the use of role-playing, the concept of management vs. leadership will also be introduced. Project management and team leadership concepts will also be introduced. Due to the nature of the courses in the Health Information Technology program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 202 and HIT 203
4 credits = 2 lecture, 2 laboratory **WR**

HIT 207 Virtual/Coding Professional Practice Externship. During this externship experience, the student will gain proficiency utilizing the various coding nomenclatures learned in previous Health Information Technology theory courses. Students will also apply knowledge gained in previous courses to apply quality management tools and techniques. Performing this externship in a virtual environment will allow the student to acquire experience working within the confines of the very popular telecommuting paradigm used in hospitals today. Due to the nature of the courses in the HIT program, courses are to be taken in the order described in the model schedule offered.
Prerequisite: HIT 201 and HIT 202 and HIT 203 and HIT 204
4 credits (1 credit hour = 64 externship hours) = 4 laboratory

HISTORY
Social Science Department (810) 989-5707

HIS 101 History of Western Civilization to 1715. The evolution of the modern Western world is surveyed from its ancient and medieval cultural footings to the making of contemporary cultural premises in the Enlightenment.
Prerequisite: None
4 credits = 4 lecture **GA**

HIS 101H History of Western Civilizations to 1715. The evolution of the modern Western world is surveyed from its ancient and medieval cultural footings to the making of contemporary premises to the Enlightenment. Selected topics will be analyzed in depth through lecture, class discussion, research and audio visual material.
Prerequisite: Acceptance into the Honors Program
4 credits = 4 lecture **GA**

HIS 102 History of Western Civilization Since 1715. This course moves the development of Western Civilization from the Enlightenment to the French Revolution and Napoleon, and the Industrial Revolution through the 19th century to explain nationalism, communism, fascism, collective security, the Cold War and other major experiences of the 20th century world. History 102 may be taken before History 101.
Prerequisite: None
4 credits = 4 lecture **GA**

HIS 102H History of Western Civilization Since 1715. This course moves the development of Western Civilization from the Enlightenment to the French Revolution and Napoleon, and the Industrial Revolution through the 19th century to explain nationalism, communism, fascism, collective security, the Cold War and other major experiences of the 20th century world. Selected topics will be analyzed in depth through lecture, class discussion, research and audiovisual material. History 102H may be taken before History 101H.
Prerequisite: Acceptance into the Honors Program
4 credits = 4 lecture **GA**

HIS 131 History of Science. This is an interdisciplinary course that explores science through the medium of history. It allows one a look at science from the perspective of an outsider - much as a political scientist studies politics or an anthropologist explores indigenous cultures. At the same time, the student gains knowledge about where we are today, and how we got here, in our understanding of the structure of the universe, atomic theory, energy, motion, evolution by natural selection, and space and time. This course is also available as PHS 131.
NOTE: Students can only receive credit for PHS 131 or HIS 131, and course designation must be determined at the time of registration.
Prerequisite: None; ENG 102 recommended
4 credits = 4 lecture **CT**

HIS 149 History of the U.S., 1607 to 1876. This course deals with the history of the United States from colonial times through reconstruction. Among the many topics included are the development of the colonies, separation from Great Britain, growth as an independent nation, the rise of sectionalism, the Civil War and Reconstruction.
Prerequisite: None
4 credits = 4 lecture **GA, GP with HIS 150**

HIS 150 History of the U.S., 1877 to Present. This course deals with the United States from 1877 to the present. It covers such topics as the transformation to an urban-industrial nation, the emergence of the U.S. as a world power including the world wars and the Depression. The last part of the course describes the Cold War, the civil rights movement, Vietnam and the new politics. This course may be taken before HIS 149.
Prerequisite: None
4 credits = 4 lecture **GA, GP with HIS 149**

HIS 160 Tall Ship Sailing. This is a basic course designed to develop the skills and knowledge necessary to serve as a volunteer crewmember on a traditional tall ship. The course includes terminology, knot tying, line handling, ship maintenance, other basic shipboard skills, maritime heritage and teamwork.
Prerequisite: None
2 credits, plus 2 contact hours = 1 lecture, 3 lab

HIS 175 History of Michigan. This course begins with an in-depth examination of the prehistoric and historic Indians of Michigan. The periods of French and British rule and Michigan's transition from territory to state are covered as well. The course also explores Michigan's contribution to wars the United States has been involved in, specifically the Civil War, World War I and World War II. Michigan's transition from an agricultural to an industrial state with world wide impact is also explored.
Prerequisite: None
3 credits = 3 lecture

HIS 190 Contemporary World History. The rise of communism and fascism, the breakdown of collective security between the world wars, World War II, the Cold War and the period of detente are covered.
Prerequisite: None
2 credits = 2 lecture

HIS 233 African-American History. This course will survey African-American history from 1619 and will explore such topics as the Atlantic slave trade, the origins of slavery in the U.S., comparative slavery in the Americas, slave culture, free blacks, the demise of slavery and the post-reconstruction experience, including the emergence of Black Culture. The course will view American history from the perspective of the African-American experience.
Prerequisite: None
3 credits = 3 lecture

HIS 280 History of World Communism. The history of world communism from the Bolshevik Revolution in Russia to the present day is reviewed. Special consideration is given to the history of the Soviet Union, Communist China, the Cold War and the collapse of the Soviet Union and the European Communist Bloc, 1989-91. The past and current economic, foreign, educational and governmental policies of various communist countries are analyzed.
Prerequisite: None
3 credits = 3 lecture

HIS 297 Women in Modern America. This course is a historical view of American women. It begins with a discussion of women from the time of British settlement on this continent. Emphasis is placed on the major periods of change, the accomplishments, and the contributions of women in America, beginning with the convention at Seneca

Falls. Some other areas that receive particular attention are the post-Civil War period, the Progressive Era, women's suffrage, the effects of the two world wars and their aftermath, and women's changing role in a changing world.
Prerequisite: None
3 credits = 3 lecture

HORTICULTURE (See Agriculture)

HUMAN SERVICES
Social Science Department (810) 989-5707

All of the Human Services courses, except HS 100 (Programs & Services for Individuals, Children and Families), are currently on inactive status.

NOTE: Students wishing to transfer to a four year university for a program in the Human Services area should follow a transfer program sheet prepared by the respective college to which they will transfer. These transfer guides are available from the Student Success Center.

HS 100 Programs & Services for Individuals, Children & Families. This course will introduce the student to the broad field of human services and provide exposure to a wide range of community health, economic and social services programs, activities, agencies, organizations and resources available for children, youth, families and individuals over the course of the life span. In an informal seminar setting, guest speakers and specialists who are currently working in the human service field, representing the public and private, for-profit and non profit sectors, will discuss their agency/organization, the services, programs and activities available, as well as provide related job/career information and suggestions. Emphasis is on the potential problems that may affect individuals or families at some point during the life span including the aged, as well as on programs and activities designed to enhance people's development and well-being. Offered fall semester only.
Prerequisites: None
3 credits = 3 lecture

INDUSTRIAL AUTOMATION
(See Robotics/Automation Technology)

JOURNALISM (See Communications Media)

LAW ENFORCEMENT (See Criminal Justice)

MANAGEMENT (See Business Administration)

MANUFACTURING TECHNOLOGY
(See CNC Programmer Machinist Technology)

MARKETING (See Business Administration)

MATHEMATICS
Math and Science Department (810) 989-5663

Students interested in selecting mathematics courses should carefully examine the prerequisites for each course. A math assessment test is administered by the Student Success Center to guide students in selection of their initial course.

SC4 offers a math mobility clause during the first three weeks of the semester, where, upon agreement of both instructor and student, the student may move to a higher or lower level of math.

MTH 050 Basic Mathematics. This course covers topics including whole numbers, decimals, fractions and percents. It is designed for the student who needs review on these topics.
Prerequisite: None
3 credits = 3 lecture

MTH 075 Pre-Algebra. This is a review of the basic operations of arithmetic on whole numbers, fractions and decimals. Algebraic concepts are integrated within the topics, enhancing the transition from arithmetic to algebra. The basic concepts of algebra are introduced, such as signed numbers, expressions and equations. Topics from geometry include formulas for area and perimeter, and applications of problems involving geometry. Students will be introduced to statistics by pictographs, bar, line, pie charts and tables, mean, median and mode.
Prerequisite: MTH 050 or appropriate placement by college assessment or ACT score
5 credits = 5 lecture

MTH 102 Elementary Algebra. This course is an introduction to basic algebra. Topics include a review of arithmetic operations, literal numbers, algebraic expressions, operations with polynomials, special products and factoring, exponents, linear equations, inequalities and an introduction to quadratic equations. The course is intended for students enrolled in occupational programs as well as for students who have not had high school algebra.
Prerequisite: MTH 075 or appropriate placement by college assessment or ACT score
5 credits = 5 lecture **MA CT**

MTH 104 Foundations of Math. This course will allow students to discover some of the mathematics that they use on a daily basis. They will consider some of the greatest ideas that were founded by mathematicians. Students will be actively involved in investigations of mathematics to help them attain a better understanding of mathematical ideas, build sharper skills for analyzing life issues that stem from mathematics and develop a new perspective and outlook at the way they view the world involving mathematics.
Prerequisite: MTH 102 or appropriate placement by college assessment or ACT score
3 credits = 3 lecture **MA CT**

MTH 105 Foundations of Math I for Elementary Education. This course covers concepts and structures of mathematics including sets, logic, numeration systems, whole numbers, integers, rational numbers and real numbers. The course is designed for prospective elementary teachers.
Prerequisite: MTH 102 or appropriate placement by college assessment or ACT score
3 credits = 3 lecture **MA CT**

MTH 106 Foundations of Math II for Elementary Education. Topics included in this course are concepts from algebra and geometry that are applicable in elementary school mathematics. This course is a continuation of MTH 105.
Prerequisite: MTH 105 or concurrent enrollment in MTH 105
3 credits = 3 lecture **MA CT**

MTH 110 Intermediate Algebra. This course consists of a review of elementary algebraic operations, polynomials, factoring, linear and quadratic equations, exponents, radicals, rational expressions, rational equations, functions and graphs, systems of equations and logarithms. Students may receive credit for MTH 110 and MTH 111 or MTH 112.
Prerequisite: MTH 102 or appropriate placement by college assessment or ACT score
4 credits = 4 lecture **MA CT**

MTH 111 Plane Trigonometry. The content of this course will be a review of selected topics from plane geometry, radian and degree measures, definitions and properties of trigonometric functions, identities, trigonometric equations, graphs, identities involving composite angles, laws of sines and cosines, and the solution of triangles. Students may receive credit for MTH 110 and MTH 111 or MTH 112. For those students who intend to take pre-calculus (MTH 113), this course is a required prerequisite.
Prerequisite: MTH 110, or appropriate placement by college assessment or ACT score
2 credits = 2 lecture **MA CT**

MTH 112 Intermediate Algebra and Plane Trigonometry. This is an integrated algebra/trigonometry course covering the topics of MTH 110 and MTH 111 but at a slightly accelerated pace. It is intended for those students who want to satisfy the prerequisites for MTH 113 in one semester. A maximum of six credits will be allowed for any combination of MTH 110 and MTH 111 or MTH 112.
Prerequisite: MTH 102, or appropriate placement by college assessment or ACT score
5 credits = 5 lecture **MA CT**

MTH 113 Pre-Calculus. This course takes an analytical approach to the elementary mathematical functions. Topics include: equations, identities, function properties and graphs. The functions studied include: polynomial, rational, exponential, logarithmic and trigonometric. Calculators are used throughout this course.
Prerequisite: MTH 110 and MTH 111, or MTH 112, or appropriate placement by college assessment or ACT score
4 credits = 4 lecture **MA CT**

MTH 114 Calculus I. Topics included in this course are limits, continuity, differentiation and integration of algebraic and trigonometric functions, and applications of the derivative.
Prerequisite: MTH 113 or appropriate placement by college assessment or ACT score
4 credits = 4 lecture **MA CT**

MTH 120 Introduction to Statistics. Topics covered include the uses and abuses of data, presentation and analysis of data using technology, measures of central tendency and dispersion, probability, types of distributions (Binomial, Poisson, normal, Student t), sampling and sampling distributions, testing hypotheses, estimation, regression and correlation. This is a beginning course in statistics that will be beneficial to students majoring in any field in which measurements and predictions are made.
Prerequisite: MTH 110 or MTH 112 or appropriate placement by college assessment or ACT score
4 credits = 4 lecture **MA CT**

MTH 210 Linear Algebra. The content of this course is matrices, linear systems, basis, dimensions, vector spaces, dot and cross products, eigenvalues and eigenvectors, and linear transformations. Offered fall semester only.
Prerequisite: MTH 215 or concurrent enrollment in MTH 215
3 credits = 3 lecture **MA CT**

MTH 215 Calculus II. Topics include the differential and integration of transcendental, inverse trigonometric and hyperbolic functions, techniques of integration, applications of the integral and infinite series. This course is a continuation of MTH 114.
Prerequisite: MTH 114
4 credits = 4 lecture **MA CT**

MTH 216 Calculus III. Topics studied include polar coordinates, parametric equations, multivariable functions, vectors, the TNB frame, partial derivatives, multiple integrals with applications and line integrals. This is a continuation of MTH 215.
Prerequisite: MTH 215
4 credits = 4 lecture **MA CT**

MTH 217 Differential Equations. Topics covered include first order differential equations, linear differential equations with constant coefficients, non-homogeneous equations, variations of parameters, the Laplace transform and inverse transforms, and series solutions. Offered winter semester only.
Prerequisite: MTH 216 or MTH 215 with permission of instructor
4 credits = 4 lecture **MA CT**

MUSIC
Visual and Performing Arts Department (810) 989-5709

Course sequence guides are available in the Fine Arts department office.

MUS 100 Class Piano I. This course for beginning adults utilizes the electronic laboratory for teaching the basics of keyboard, and includes note reading, hand positions and introductory theory.
Prerequisite: None
2 credits = 2 lecture

MUS 102 Class Piano II. This continuation of MUS 100 stresses more demanding and complex pianistic technical studies.
Prerequisite: MUS 100 or permission of instructor
2 credits = 2 lecture

MUS 106 Music Appreciation. This course is a listener's introduction to musical styles from Ancient Greece through the new music developments of the 21st century. This humanities course presents an opportunity for non-music and music students to gain insights into the nature and structure of music.
Prerequisite: None
3 credits = 3 lecture

MUS 110 Basic Musicianship. This is an integrated, computer assisted course in music notation, reading, ear training and fundamentals of music. It is designed for every person desiring knowledge of music and needing entry level music skills for collegiate study. The course is required of all music majors. Offered fall semester only.
Prerequisite: None
3 credits = 3 lecture

MUS 120 Theory I. Designed for the student pursuing a musical career in performance or education, MUS 120 provides a focus on “common practice” diatonic harmony in four part chorale writing, the inversions of triads and chords, harmonic progressions and non-chord tones. Offered winter semester only.
Prerequisite: MUS 110 and concurrent enrollment in MUS 123
3 credits = 3 lecture

MUS 123 Ear Training I. This course is the aural counterpart of Theory I and must be taken concurrently with MUS 120. Drills in musical dictation, and sight-singing will provide the student with important skills that benefits the musician in numerous ways, making all musical experiences more comprehensible. Individual computer lab time will be assigned. Offered winter semester only.
Prerequisite: MUS 110 and concurrent enrollment in MUS 120
2 credits = 2 lecture

MUS 162 Choir I. The choir is dedicated to the performance of the finest in vocal literature. The emphasis is on performance, hence attendance at all rehearsals and performances is obligatory. This course may be taken up to four times. Courses are sequenced as MUS 163, 262 and 263 (one course per semester).
Prerequisite: None
1 credit, plus 2 contact hours = 3 laboratory/rehearsal

MUS 182 The Symphonic Band I. This course is comprised of college students and members of the community with previous playing experience. The group is dedicated to the performance of the finest in symphonic wind literature. Attendance at all rehearsals and performances is obligatory and membership is expected for the entire year. This course may be taken up to four times. Courses are sequenced as MUS 183, 282 and 283 and/or MUS 187/287 during the summer (one credit per semester).
Prerequisite: High school experience or equivalent, or permission of the conductor
1 credit, plus 2 contact hours = 3 laboratory/rehearsal

MUS 187 The Twilight Festival Band. The Twilight Festival Band is composed of college students and members of the community. It is dedicated to providing a series of outdoor concerts during the summer. The emphasis is on the performance of light classical and symphonic “Pops” music for the enjoyment of the entire community. Membership is expected for the entire season. This course may be taken up to two times, with a course sequence of MUS 287 the following summer (one credit per semester).
Prerequisite: High school experience or equivalent, or permission of the conductor
1 credit, plus 2 contact hours = 3 laboratory/rehearsal

MUS 192 International Symphony Orchestra. This course is comprised of college students and members of the community. The International Symphony Orchestra is dedicated to the performance of the finest in orchestra literature, both classic and contemporary. The emphasis is on performance, and membership in the group is expected for the entire season. This course may be taken up to four times. Courses are sequenced as MUS 193, 292 and 293 (one credit per semester).
Prerequisite: Audition/permission of the conductor
1 credit, plus 1.5 contact hours = 2.5 laboratory/rehearsal

MUS 192A International Symphony Singers. This course is comprised of college students and members of the community. The International Symphony Singers is dedicated to the performance of the finest in choral literature, both classic and

contemporary. The emphasis is on performance, and membership in the group is expected for the entire season. This course may be taken up to four times. Courses are sequenced as MUS 193A, 292A and 293A (one credit per semester).
Prerequisite: Audition/permission of the conductor
1 credit, plus 1.5 contact hours = 2.5 laboratory

MUS 220 Theory II. This continuation of Theory I stresses more complex theoretical problems such as seventh chords, secondary dominants, altered chords, common modulation and linear concepts. Offered fall semester only.
Prerequisite: MUS 120. MUS 224 is an optional co-requisite.
3 credits = 3 lecture

MUS 221 Theory III. This continuation of Theory II focuses on the more advanced aspects of chromatic harmony, with greater emphasis on expanded tonalities and linear relationships. Offered winter semester only.
Prerequisite: MUS 220 and MUS 224 and concurrent enrollment in MUS 225.
3 credits = 3 lecture

MUS 224 Ear Training II. This is a continuation of MUS 123. Emphasis is placed on further drills in harmonic, melodic, rhythmic dictation and sight-singing. Offered fall semester only.
Prerequisite: MUS 120 and 123 and concurrent enrollment in MUS 220
2 credits = 2 lecture

MUS 225 Ear Training III. This continuation of MUS 224 must be taken concurrently with Theory III (MUS 221). Emphasis is placed on a more complex level of sight-singing and harmonic, melodic and rhythmic dictation. Offered winter semester only.
Prerequisite: MUS 220 and MUS 224 and concurrent enrollment in MUS 221
2 credits = 2 lecture

MUS 230 The History of Music I. This course is for those students who wish to specialize in the area of music, and for those students who wish to broaden their knowledge about the fine arts. It is a study of the elements of musical expression, and the concepts of form and style in relation to societal evolution.
This covers music in the ancient world through the Baroque period.
Prerequisite: None
3 credits = 3 lecture **GA**

MUS 231 The History of Music II. This continuation of MUS 230 links the Baroque era with the 20th Century. It examines the “revolutions” of the 17th, 18th, 19th and 20th centuries and their influences on musical expression.
Prerequisite: None
3 credits = 3 lecture **GA**

Applied music or activity courses:

MUSA 103 Applied Voice I	MUSA 103A Applied Voice I
MUSA 104 Applied Voice II	MUSA 104A Applied Voice II
MUSA 105 Applied Piano I	MUSA 105A Applied Piano I
MUSA 106 Applied Piano II	MUSA 106A Applied Piano II
MUSA 107 Applied Brass Wind I	MUSA 107A Applied Brass Wind I
MUSA 108 Applied Brass Wind II	MUSA 108A Applied Brass Wind II
MUSA 109 Applied Organ I	MUSA 109A Applied Organ I
MUSA 110 Applied Organ II	MUSA 110A Applied Organ II
MUSA 111 Applied Woodwind I	MUSA 111A Applied Woodwind I

MUSA	112	Applied Woodwind II	MUSA	112A	Applied Woodwind II
MUSA	113	Applied Classical Guitar I	MUSA	113A	Applied Classical Guitar I
MUSA	114	Applied Classical Guitar II	MUSA	114A	Applied Classical Guitar II
MUSA	115	Applied Percussion I	MUSA	115A	Applied Percussion I
MUSA	116	Applied Percussion II	MUSA	116A	Applied Percussion II
MUSA	203	Applied Voice III	MUSA	203A	Applied Voice III
MUSA	204	Applied Voice IV	MUSA	204A	Applied Voice IV
MUSA	205	Applied Piano III	MUSA	205A	Applied Piano III
MUSA	206	Applied Piano IV	MUSA	206A	Applied Piano IV
MUSA	207	Applied Brass Wind III	MUSA	207A	Applied Brass Wind III
MUSA	208	Applied Brass Wind IV	MUSA	208A	Applied Brass Wind IV
MUSA	209	Applied Organ III	MUSA	209A	Applied Organ III
MUSA	210	Applied Organ IV	MUSA	210A	Applied Organ IV
MUSA	211	Applied Woodwind III	MUSA	211A	Applied Woodwind III
MUSA	212	Applied Woodwind IV	MUSA	212A	Applied Woodwind IV
MUSA	213	Applied Classical Guitar III	MUSA	213A	Applied Classical Guitar III
MUSA	214	Applied Classical Guitar IV	MUSA	214A	Applied Classical Guitar IV
MUSA	215	Applied Percussion III	MUSA	215A	Applied Percussion III
MUSA	216	Applied Percussion IV	MUSA	216A	Applied Percussion IV

Applied music (private instruction) is offered in the preceding list of performance areas. Instruction is provided by student contracted instructors, under the supervision of the college. **Applied Music courses require payment of tutorial fees in addition to regular tuition and lab fees.** Lab fees are used to help defray the cost of providing practice facilities in the Fine Arts Building. The tutorial fees may range from $12 to $35 per half hour of instruction. Students studying with a contracted instructor pay their tutorial fees directly to their instructor. The tutorial fee is established by the contracted instructor.

All applied music courses are intended to develop necessary skills in performance, in preparation for transfer to senior institution. Students are expected to practice at least one hour per day. Instruction is given by college approved, private teachers. Instruction may take place on campus or in the instructor's own studio. A list of approved instructors is available in the office of Visual and Performing Arts Department. Students with no previous experience in their chosen field of Applied Music study will not be permitted to register for three credit hours.

MUSA courses with a catalog number ending with **"A"** carry one hour of academic credit based on a weekly half-hour private lesson. This level of instruction is intended for beginners or those seeking a performance minor.

MUSA courses without the letter **"A"** carry three hours of academic credit based on a weekly one-hour private lesson. This level of instruction is intended for music majors only and students will qualify for their semester final grade by performing before a music examination jury. The jury is composed of all available music faculty, including contract instructors. Instructor approval is required with an **AUDITION**.

MUSA courses numbered in the 100 range are the first and second semester courses. The 200 level courses are restricted to sophomores in music who have completed two 100 level courses in sequence.

NATURAL RESOURCES
Math and Science Department (810) 989-5663

NTR 100 Introduction to Sustainable Energy Concepts. This interdisciplinary course introduces the student to the principles and concepts associated with the efficient production of usable energy based on sustainable resources. It includes the technology of power production by wind energy, solar energy, hydrogen-fuel devices and other alternative fuel systems.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

NTR 130 Environmental Assessment and Regulations. Environmental assessments are performed to verify that properties and operations are in compliance with state and federal environmental laws. Most lending institutions now require that commercial and industrial properties have some type of environmental assessment performed prior to authorizing loans for purchase, construction or development of these sites. Anyone working on a site of known contamination is required to exercise Due Diligence. Although environmental professionals with advanced technical training perform most environmental assessments, people in many diverse fields (real-estate, bankers, attorneys, municipal and governmental employees, planners, developers, etc.) must utilize these highly technical reports in their work. This course will familiarize students with the different types of environmental assessments and the rationale behind the different levels of investigation required by each type of assessment. It will provide the basic information necessary to understand and interpret the content of written reports.
Prerequisite: BIO 100
3 credits = 3 lecture

NTR 150 Environmental Management. This course is designed for persons responsible for or associated with the safe transport of hazardous substances. Emergency response for the purpose of protecting nearby persons, property, and/or the environment from hazardous spill will be addressed, as well as training related to chemical properties, equipment, protective gear and incident command.
Prerequisite: BIO 100
2 credits = 2 laboratory

NTR 210 Environmental Information. Environmental Information is a hands-on survey course that focuses on utilizing multiple sources of useful environmental graphic to condense and illustrate information relative to environmental site investigations. The course will include an overview of publicly available databases and archives of environmental information. Students will gain practical experience in accessing public databases and interpreting selected GIS, aerial photos and graphics such as topographic, hydrologic, mineral, land-use and contamination maps, as well as subsurface and well-log data. This course will be useful to anyone who deals with environmental issues or needs to understand and interpret environmental reports.
Prerequisite: BIO 100
3 credits, plus 2 contact hours = 2 lecture, 3 laboratory

NTR 230 Environmental Law. This is a survey course that will give students a broad, practical understanding of some important federal environmental laws. It will provide an understanding of the legislative, regulatory and judicial processes that create environmental law. Emphasis will be on the main federal pollution control statutes:

CERCLA, RCRA, CAA and CWA. This class will explore the structure of the Michigan Department of Environmental Quality (MDEQ) and focus on accessing the MDEQ website for specific regulatory and compliance information.
Prerequisite: NTR 130
3 credits = 3 lecture

NURSING, ASSOCIATE DEGREE

Nursing Department (810) 989-5675

ADN 103 Nursing Process and Health Assessment. This course will expand on basic adult assessment skills utilizing the nursing process. This course includes interviewing skills, obtaining a health history, physical exam techniques for various body systems, diagnostic reasoning and documentation of findings. Student does not have to be admitted to the nursing program to take this course. Offered fall semester only.
Prerequisite: Pre-transition program student (licensure required), licensed RN, or permission of instructor
2 credits, plus 1 contact hours = 1.5 lecture, 1.5 laboratory

ADN 123 Nursing Assessment. This course will focus on basic adult and older adult health assessment skills for the adult client. This course includes interviewing skills, obtaining a health history, basic physical examination techniques for various body systems, diagnostic reasoning and documentation of findings.
Prerequisite: Admission to ADN program and BIO 271
.90 credit = .90 lecture

ADN 123L Nursing Assessment - Clinical Skills. The laboratory component of this course expands on health assessment through practice and application of skills.
Prerequisite: Admission to the ADN program and BIO 271
.90 credit = .90 laboratory

ADN 124 Pharmacology for Nurses. This course is an introduction to nursing as a practicing profession and the role of the nurse relating to the use of pharmaceutical agents. The focus of this course is on the delivery of health care using evidence based practice and the nursing process for an adult client receiving pharmaceutical agents in a structured environment. The nurse provides direct care, communicates, teaches and manages the process of pharmacotherapeutics. Ethical and legal accountability of medication administration is emphasized.
Prerequisite: Admission to two-year ADN traditional or transition program, or permission of instructor
2 credits = 2 lecture

ADN 125 Principles of Nursing Care. This course is an introduction to nursing as a profession. The nursing process is introduced as it relates to nursing practice of the adult client in a structured environment. The roles of the nurse as a professional are introduced.
Prerequisite: Admission to the ADN program
4 credits = 4 lecture

ADN 125L Principles of Nursing Care - Clinical Skills. The clinical component of this course introduces the principles and practice of clinical nursing skills using nursing process in the laboratory and clinical setting. Principles inherent to the role of nurse as provider of direct care, communicator, teacher and member of the profession are practiced.
Prerequisite: Admission to the ADN program
5 credits, plus 10 contact hours = 15 laboratory

ADN 126 Nursing Care of the Adult I. This course is a continued development of the student as a professional. The nursing process is used as it relates to the medical surgical adult client with well-defined diagnoses. A holistic approach is used to assist the student to deliver care to the adult client.
Prerequisites: ADN 123 and ADN 124 and ADN 125/125L
2.5 credits = 2.5 lecture

ADN 126L Nursing Care of the Adult I - Clinical Skills. The clinical component emphasizes the role of the student in providing direct client care. The role of nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 123 and ADN 124 and ADN 125/125L
2.5 credits, plus 5 contact hours = 7.5 laboratory

ADN 127 Nursing Care of the Childbearing Family. This course is a continued development of the nurse as a professional. The nursing process is used as it relates to the childbearing family with well-defined nursing diagnoses. A holistic approach is used to assist the student to deliver family-centered care to the childbearing family with both normal and abnormal conditions.
Prerequisites: ADN 123 and ADN 124 and ADN 125/125L
2 credits = 2 lecture

ADN 127L Nursing Care of the Childbearing Family - Clinical Skills. The clinical component of this course emphasizes the role of the student in providing direct care to the childbearing family in the acute care and community setting. The role of the nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 123 and ADN 124 and ADN 125/125L
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 128 Nursing Care of the Adult II. This course is a continued development of the student as a professional. The nursing process is used as it relates to the medical surgical adult client with well-defined diagnoses. A holistic approach is used to assist the student to deliver care to the adult client.
Prerequisites: ADN 126/126L and ADN 127/127L
1.5 credits = 1.5 lecture

ADN 128L Nursing Care of the Adult II - Clinical Skills. The clinical component of this course emphasizes the role of the student in providing direct client care. The role of the nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 126/126L and ADN 127/127L
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 200 Essentials of Nursing Care. This course is an introduction to nursing as a profession for qualified licensed health care providers. The nursing process is introduced as it relates to nursing practice in the adult client in a structured environment. The role of the nurse as a professional is introduced.
Prerequisite: Admission to Transition Nursing Program: Health Care Provider to ADN Track
4 credits = 4 lecture

ADN 200L Essentials of Nursing Care - Clinical Skills. The clinical component of this course introduces the principles and practice of clinical nursing skills using nursing process in the laboratory and clinical setting. The role of nurse as provider of direct care, communicator, teacher, manager and member of the profession are practiced.
Prerequisites: Admission to Transition Nursing Program: Health Care Provider to ADN Track
4 credits, plus 8 contact hours = 12 laboratory

ADN 225 Nursing Care of the Adult II. This course is a continued development of the student as a professional. The nursing process is used as it relates to the medical surgical adult client with well-defined diagnoses. A holistic approach is used to assist the student to deliver care to the adult client.
Prerequisites: ADN 128/128L
2 credits = 2 lecture

ADN 225L Nursing Care of the Adult III - Clinical Skills. The clinical component emphasizes the role of the student in providing direct client care. The role of the nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 128/128L
2.25 credits, plus 4.5 contact hours = 6.75 laboratory

ADN 226 Mental Health Nursing Care. This course continues to develop the student as a communicator by teaching the therapeutic use of self in nursing practice. The nursing process is used as it relates to adult clients with well-defined mental health nursing diagnoses. Principles of holistic health are considered, with particular focus on behaviors, stress, crisis and coping. Ethical/legal issues unique to mental health situations are emphasized.
Prerequisites: ADN 128/128L and PSY 220
2 credits = 2 lecture

ADN 226L Mental Health Nursing Care - Clinical Skills. The nursing process is used to help adult clients to achieve personal goals in mental health settings. The clinical component emphasizes the role of the student in providing direct client care for actual and potential mental health problems. The role of nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 128/128L and PSY 220
2 credits, plus 4 contact hours = 6 laboratory

ADN 227 Nursing Care of Children. This course continues the development of the student as a professional. The nursing process is used as it relates to the child and family with well-defined nursing diagnoses. A holistic approach is used to assist the student to deliver family-centered care to the pediatric client.
Prerequisites: ADN 225/225L and ADN 226/226L and HE 210
2 credits = 2 lecture

ADN 227L Nursing Care of Children - Clinical Skills. The clinical component of this course emphasizes the role of the student in providing direct care to the child and family in a variety of settings. The role of nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 225/225L and ADN 226/226L and HE 210
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 228 Nursing Leadership. This course is designed to continue the development of the student as a professional and a leader. Emphasis is placed on the skills required for managing care of a group of clients at the beginning RN level. The principles of critical thinking are applied to guide the student in legal and ethical decision making.
Prerequisites: ADN 225/225L and ADN 226/226L
2 credits = 2 lecture

ADN 228L Nursing Leadership - Clinical Skills. Clinical experiences focus on the integration of prior learning as a direct care provider, communicator, and teacher. Emphasis is placed on leadership and management principles; professional responsibilities; and legal and ethical accountability.
Prerequisites: ADN 225/225L and ADN 226/226L
2.5 credits, plus 5 contact hours = 7.5 laboratory

ADN 230 Nursing Transition. This course is an introduction to nursing as a profession focusing on the transition from the LPN to the RN role. Emphasis is on scientific principles, holistic nursing care of the person and the use of the nursing process to provide care. Trends in health care, health promotion and legal-ethical accountability are integrated throughout this course.
Prerequisite: Admission Transition ADN Program: LPN to RN track, ADN 103, HE 101 and HE 224
4 credits = 4 lecture

ADN 231 Nursing Transition and Care of the Adult I. This course is a continued development of the student as a professional. The nursing process is used as it relates to the medical surgical adult client with well-defined nursing diagnoses. A holistic approach is used to assist the student to deliver care to the adult client. This course is a once a year offering.
Prerequisite: ADN 230; HCP to RN Track = ADN 200/ADN 200L
2.5 credits = 2.5 lecture

ADN 231L Nursing Transition - Clinical Skills. This clinical component emphasizes the role of the student in providing direct care. The role of the nurse as a communicator, teacher, manager and member of the profession is continued.
Prerequisite: ADN 230; HCP to RN Track = ADN 200/ADN 200L
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 233 Nursing Transition and Care of the Adult II. This course is a continued development of the student as a professional. The nursing process is used as it relates to the medical surgical adult client with well-defined nursing diagnoses. A holistic approach is used to assist the student to deliver care to the adult client.
Prerequisites: ADN 231/231L and ENG 101 and PSY 180
5 credits = 5 lecture

ADN 233L Nursing Transition and Care of the Adult II - Clinical Skills. The clinical component of ADN 233 emphasizes the role of the student in providing direct client care. The role of the nurse as a communicator, teacher, manager and member of the profession are continued.
Prerequisites: ADN 231/231L and ENG 101 and PSY 180
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 234 Nursing Transition: Maternal Child. This course is a continued development of the transition student as a professional. The nursing process is used as it relates to the newborn, child, maternity client and family with well defined nursing diagnoses. A holistic approach is used to assist the student to deliver family-centered care.
Prerequisites: ADN 231/231L
3 credits = 3 lecture

ADN 234L Nursing Transition: Maternal/Child Clinical Skills. The clinical component of this course emphasizes the role of the transition student in providing family-centered care in a variety of settings. The role of the nurse as communicator, teacher, manager and member of the profession is continued.
Prerequisites: ADN 231/231L
1.5 credits, plus 3 contact hours = 4.5 laboratory

ADN 235 Nursing Transition: Leadership. This course is designed to continue the development of the transition student as a RN and leader. Emphasis is placed on the skills required for managing care of a group of clients at the beginning RN graduate level. The principles of critical thinking are applied to guide the student with legal and ethical decision making.
Prerequisites: ADN 233/233L and ADN 234/234L
2 credits = 2 lecture

ADN 235L Nursing Transition: Leadership - Clinical Skills. Clinical experiences focus on the integration of prior learning as a direct care provider, communicator, and teacher. Emphasis is placed on the transition to the RN role regarding leadership and management principles; professional responsibilities; and legal and ethical accountability.
Prerequisites: ADN 233/233L and ADN 234/234L
2 credits, plus 4 contact hours = 6 laboratory

ADN 236 Nursing Care of the Older Adult. This course continues to develop the nurse as a professional by building on the concepts relative to the older adult taught in previous nursing courses. Principles of holistic health are considered with particular focus on the diversity of health care needs of older adults in the community and clinical setting.
Prerequisites: PSY 220 and HE 210
1 credit = 1 lecture

OFFICE ADMINISTRATION

Computer and Office Technology Department (810) 989-5628

OA 101 Personal Keyboarding on Microcomputers. Avoid the “hunt and peck” method of typing on microcomputers by joining this course and learning basic keyboarding (typing) skills. This course is designed for non-office administration majors.
Prerequisite: None
1 credit = 1 lecture/laboratory

OA 110 Beginning Keyboarding. Students will learn strategies to help achieve mastery of the keyboard and proper techniques of touch typing, in addition to being introduced to letter styles, memos and manuscripts. Students will also gain mastery of basic word processing commands as documents will be produced on microcomputers using word processing software.
Prerequisite: None
3 credits = 3 lecture/laboratory

OA 111 Keyboarding Skills. This course assists students in diagnosing deficiencies in their keyboarding skills and works to enhance their keyboarding skills by working on their technique, accuracy and speed.
Prerequisite: OA 110
1 credit = 1 lecture/laboratory

OA 115 Intermediate Keyboarding and Document Formatting. This course will help students develop speed and accuracy by learning proper formats and keyboarding shortcuts while producing business correspondence, manuscripts/reports, tables and a variety of other business documents. This course utilizes microcomputers, operating software and word processing application software for instruction. Further development of word processing skills also will be stressed in the course. This course will assist students in preparing for the MOS (Microsoft Office Specialist) certification. A pretest is available for proper keyboarding placement.
Prerequisite: OA 110 or passing score on placement test **AND** a minimum of 40 words per minute
4 credits = 4 lecture/laboratory **CL**

OA 130 Time and Project Management. This course will reinforce time management and self-management tools by establishing long-range goals, defining values and developing planning techniques. This course will introduce an electronic mail and calendaring tool (e.g., Outlook). OA 130 will provide a “hands-on” approach to managing email messages, calendars, projects and reports. The focus will be to improve productivity in busy offices by integrating management techniques with computer tools. Grading = satisfactory/unsatisfactory
Prerequisite: None
1 credit = 1 lecture

OA 135 Automated Office Principles and Practices. This class serves as an introduction to office employment, featuring the administrative assistant in the automated office as both a public relations specialist and a professional in the office environment. Topics to be covered include professional demeanor, the office environment, organization and management of time and work, public relations responsibilities, computer systems and software, dictation skills, processing of documents, in-coming and out-going communications, telephone techniques, applications for business grooming and review of punctuation and grammar usage. The course also features a study of realistic case problems and the completion of related work assignments. Guest speakers and field trips further enhance learning opportunities.
Pre or co-requisite: OA 110 or OA 115
4 credits = 4 lecture

OA 150 Windows and File Management for Beginners. This course is designed to develop microcomputer skills for beginners. This course will introduce Windows software and file management techniques so users will become comfortable

before they begin application software instruction. Topics will include getting started, managing programs, managing files and folders, transferring data between applications, managing printing, and accessing software like Paint and WordPerfect for Windows and customizing windows. File management techniques will focus on personal and office organization.
Prerequisite: None
2 credits = 2 lecture/laboratory

OA 151 Home/Student Word Processing. This elective course is designed for the individual who wishes to learn microcomputer-based word processing for student or home use. Students who desire a more thorough orientation to word processing should substitute OA 155 for this course.
Prerequisite: None
1 credit = 1 lecture/laboratory

OA 157 Word Processing and Spreadsheets. This course provides "hands-on" microcomputer experience while providing intermediate word processing concepts and beginning spreadsheet concepts. Various word processing applications such as creating, revising, storing, merging and customizing of documents are taught along with introductory spreadsheet concepts such as creating and formatting worksheets, building formulas, using functions and creating charts. Applications will focus on building skills for the office environment. These skills will be obtained with the aid of the appropriate microcomputer hardware and software. Additional lab time outside of class will be required of the student to complete assignments.
Pre or Co-requisite: OA 115
4 credits = 4 lecture/laboratory **CL**

OA 161 Office Technology. This course covers a hands-on approach to technologies used in offices. Topics include Internet research, Internet communities, electronic mail, webcasting, scheduling, data conversion, voice recognition, desktop publishing, etc. Students will operate various equipment such as digital and multi-function photocopy machines, scanners, voice activated equipment, printers, digital cameras and other office technologies. Instruction occurs in small groups and in teams, so individuals will build oral communication skills. Individuals are required to participate in a panel presentation. Equipment and software troubleshooting will occur, which will apply critical thinking skills. Because special equipment is used for this course, individuals will be on campus eight additional hours to complete team and individual projects.
Prerequisite: None
4 credits = 4 lecture/laboratory **CT OC**

OA 162 Integrative Technology in the Classroom. This course will give students the practical, hands-on training and experience in several areas of classroom technology, including: using word processing software and external equipment, including image scanning, digital painting, digital photography and image projection; slide shows with software; desktop publishing software to create several fliers, newsletters and other communication materials for classroom use and parent communication; creating classroom management spreadsheets for grade books and graphic reporting; experiencing telecommunications in classroom research and lesson delivery by using the Internet, email, virtual field trips, interactive television and other web resources.
Prerequisite: CIS 115
4 credits = 4 lecture/laboratory

OA 164 PowerPoint Presentation Graphics. This "hands-on" software course begins with an overview of PowerPoint software by producing outlines and slides. Graphics will be edited and printed. As skills progress, objects will be drawn and embedded from other software packages. Techniques for scanning and importing pictures, movies and sound will be demonstrated and applied. Several projects will be developed to demonstrate electronic presentation skills for the office.
Prerequisite: None
1 credit = 1 lecture

OA 200A-C Office Administration Cooperative Education Experience. These courses provide cooperative education work experience arrangements for students in Office Administration programs. A student is under the supervision of both the employer and the cooperative education coordinator and works a specified number of hours each week. One hundred eighty hours of work experience is required for each cooperative education experience with at least OA 200B being completed in the Office Administration area of specialty (i.e. legal, medical, clinical medical, executive). Seminars to discuss experiences and problems are also held.
Students pursuing dual degrees will complete OA 200C in the specialty area of their second degree.
Prerequisite: Application process and permission of co-op coordinator
NOTE: Grade of C or better in OA courses and competency courses required for entry into this course.
3 credits = 3 lecture (180 work hours required per education experience)

OA 202 Criminal Law. This course is a study of substantive law as a means of defining and preserving social order. Sources of criminal law, classification of crimes against persons, property and public welfare; principles of criminal liability, elements necessary to establish crime and criminal intent; specific crimes and defenses and constitutional limitations are examined.
Prerequisite: None
3 credits = 3 lecture

OA 225 Business Communications (Formerly OA 125). Students will study the building of communication skills for productive work in business, such as planning and writing business messages, including memorandums, letters and reports. Extensive writing will emphasize appearance, accuracy, coherence, clarity, conciseness, courtesy, appropriate tone and organization while producing effective results. The course will also review language skills and mechanics. Students will study strategies for improving oral communication and listening. Oral communication skills will be demonstrated in small and large group discussions, sharing sessions and a number of short presentations, followed by a longer formal, in-class business presentation. All hand-in assignments are required to be typed/keyboarded.
Prerequisite: ENG 101
4 credits = 4 lecture **OC WR**

OA 235 Electronic Office Administrative Procedures. Students will study techniques for learning to work effectively in the office when handling travel arrangements; expediting meetings, understanding computer technology and communication; collecting business information, presenting statistical information; handling banking responsibilities, including investments and insurance; producing and processing legal papers; fulfilling an administrative role, and understanding purposes and functions of management, work flow and procedure manuals. Offered fall semester only.
Prerequisite: OA 115 and OA 135 and OA 260
3 credits = 3 lecture

OA 257 Advanced Applications and Integration. This hands-on course covers advanced features in word processing, spreadsheets and databases. It instructs students on how to use each of the three applications to produce integrated projects, including: creating charts using a spreadsheet and importing it into a word processed document and using a database file to create a mail merged document. While the course will cover advanced application assignments, it will focus on integrated projects.
Prerequisite: OA 157 and OA 262
4 credits = 4 lecture/laboratory **CL**

OA 260 Machine Transcription for Word Processing. Students will focus on the development of a salable skill in the use of office transcribing machines. Proper techniques of letter placement, necessary English skills of punctuation, spelling and grammar, and other skills essential for efficient transcription are stressed. Offered winter semester only.
Prerequisite: OA 115 and 135
3 credits = 3 lecture/laboratory

OA 262 Records Management for the Automated Office. This course includes a hands-on and computer-based approach to teaching the fundamentals of filing and records management. Topics include manual filing--alphabetic, geographic, subject, numeric, alphanumeric; electronic filing--creating and using database management files; and an introduction to records management--maintaining records, types of filing systems, records creation and control. Critical thinking skills will be applied.
Prerequisite: OA 115
4 credits = 4 lecture/laboratory **CT**

OA 270 Legal Transcription. The development of skills in the use of office transcribing machines to produce accurate legal documents and correspondence is the focus of this course. Emphasis is placed on efficient transcription techniques, correct legal form and legal terminology. Offered winter semester only.
Prerequisite: OA 202 and OA 115
3 credits = 3 lecture

OA 275 Legal Office Administrative Procedures. This course is designed to provide students with an understanding of the general and specialized office duties performed by a legal administrative assistant. Various facets of law, courts, legal procedures, document production and correspondence at the federal, state and/or municipal levels will be introduced. Skills will be developed by providing project simulations in personal injury, adoption, probate, corporation, real estate and criminal law. Accuracy in production and procedures will be emphasized. Offered fall semester only.
Prerequisite: OA 135 and OA 115 and OA 270
3 credits = 3 lecture/laboratory

OA 280 Medical Terminology & Transcription. This course offers a presentation of terminology that a medical transcriptionist is most likely to encounter in five types of reports – consultation, history and physical examination, special procedure, operative and discharge summary. Transcription of reports is based on the terminology presented. Offered winter semester only.
Prerequisite: BIO 160 and OA 115
4 credits = 4 lecture/laboratory

OA 280A Medical Terminology. This course offers a presentation of terminology that a medical assistant is most likely to encounter in the medical field – a physician's office, hospital or other medical facility. This medical terminology course will predominately include the study of prefixes, suffixes and root words. Offered winter semester only.
Prerequisite: BIO 160
2 credits = 2 lecture

OA 282 Pharmacology for Medical Assistants. This course will study commonly used medications according to body system classifications. This will include their intended purpose along with the benefits and effects of each. Students will also learn how to calculate and convert medication dosages. Offered winter semester only.
Co-requisite: OA 280A or OA 280
2 credits = 2 lecture

OA 285 Medical Office Administrative Procedures. This course will introduce students to the duties of the medical office worker in maintaining an appointment schedule, meeting the patient, receiving and placing telephone calls, managing records, preparing medical histories, billing the patient, managing the office, preparing for medical society meetings, typing professional reports, making travel arrangements and keeping financial records. Presentation of legal ethical concepts of medicine as they relate to the medical office worker, including the licensing of doctors, public relations professional liability prevention, the doctor in court, principles for release of information, the right to die and abortion are also studied. A study of medical specialties is also included, along with a presentation of techniques for obtaining employment and achieving advancement. The use of medical office simulations enhances learning opportunities. Offered fall semester only.
Prerequisite: OA 135 and OA 115 and OA 280 or OA 280A
4 credits = 4 lecture

OA 287 Beginning Medical Office Clinical Techniques. This course focuses on a range of topics, including coverage of medical office roles and relationships, infection control, vital signs, examination techniques, body mechanics, basic specimen collection and handling, eye and ear care, sanitation of equipment, minor surgery preparation, sterile techniques, dressing and bandage application and removal, and x-ray procedures. The clinical component of Beginning Medical Office Clinical Techniques provides an opportunity for the student to develop introductory skills in clinical procedures in a laboratory setting. Enrollment in medical clinical assistant program, or consent of instructor, and proof of Hepatitis B vaccine and/or positive titer required. Offered fall semester only.
Prerequisite: OA 282 and BIO 160
3 credits = 3 lecture/laboratory

OA 288 Advanced Medical Office Clinical Techniques. An advanced course that provides knowledge and builds skills for family and specialty practices. Course content will include converting measurements, preparing and handling medications, recording procedures, accessing sites, collecting specimens, testing specimens and cultures and processing EKGs. Students will be taught stress management and professional demeanor techniques throughout this course. Offered winter semester only.
Prerequisite: OA 287
3 credits = 3 lecture/laboratory

OA 289 Medical Billing and Coding. Students will develop the ability to recognize and define health insurance terms, do procedure and diagnosis coding, and complete universal health insurance claims, such as Blue Cross and Blue Shield, Medicaid, Medicare, TRICARE and CHAMPVA, Worker's Compensation and dental insurance forms. This course will provide the opportunity to operate a computerized billing system and the experience of using actual medical office software. The course includes an introduction to both ICD9 and ICD10 (diagnostic coding) and CPT (procedure coding) and offers some basic parameters involved when submitting bills to insurance companies. Offered fall semester only.
Pre/Co-requisite: OA 280 or OA 280A
4 credits = 4 lecture/laboratory

PHILOSOPHY
Communications Department (810) 989-5578

Philosophy studies the fundamental issues and problems of existence, such as the nature, origin and purpose of the universe, and the nature of humans, their freedom and their moral and social obligations, in order to formulate a coherent world view and philosophy of life. To solve these problems, philosophy stresses logical and careful thinking; philosophy courses are especially recommended for pre-professional, liberal arts and science programs.

PHL 210 Introduction to Philosophy. This course is organized with a "problems" approach to show how, through the ages, philosophers have dealt with such recurring problems as those of knowledge, morality, freedom, justice and the nature of the universe and a human's place in it. The object of the course is to sharpen the student's ability to evaluate ideas and broaden the student's world view.
Prerequisite: None
3 credits = 3 lecture **CT**

PHL 213 Ethics. This course examines selected topics from classical and contemporary ethics. Topics include theories of right and wrong actions, challenges to ethics, meta-ethics, ethics in society, justice, rights, personhood and the meaning of life. This course is designed to help students develop their abilities to read, analyze and evaluate philosophical literature, think critically and analytically about ethical issues, and express their own ethical positions.
Prerequisite: None
3 credits = 3 lecture **CT**

PHL 215 Introduction to Logic. This course is a non-mathematical introduction to the basic principles of reasoning and symbolic logic. The course covers both deductive and inductive inferences, and gives attention to informal fallacies, sentential logic and syllogistic reasoning. Additional topics may include quantification, and issues in computation and the Philosophy of Mind. The object of the course is to make the student more alert to fallacious arguments and able to determine if argument forms are valid.
Prerequisite: None
3 credits = 3 lecture **CT**

PHL 220 Philosophy of Religion. The course focus will be on traditional arguments for and against theism, including the ontological, cosmological, and design arguments and evolution, the argument from religious experience, the argument from miracles

and historical testimony, and the problem of evil. Students will also consider whether morality is determined by God and whether life would be meaningless if God did not exist.
Prerequisite: None
3 credits = 3 lecture **CT GA**

PHYSICAL EDUCATION
Health and Human Services Department (810) 989-5675

PE 100 Wellness: A Concept of Health and Fitness. The student's physical status is appraised with a pre-test program which includes physical activities, postural analysis, somatotyping and body fat calibrations. Course activities include aerobics, isometrics, weight training and other forms of exercise. Lectures are provided related to weight control, postural improvement, cardiorespiratory fitness and principles of physical activity. The course is designed to stimulate the student's interest in a lifetime of good health and physical activity.
Prerequisite: None
2 credits, plus 1 contact hour = 2 lecture, 1 laboratory

PE 107 Stress Management and Neuromuscular Relaxation. This course focuses on the effect of stress on health and various methods/strategies for reducing stress in a person's life. The course will include scientific principles of neuromuscular relaxation practices and low-intensity exercises. Topics will include progressive relaxation, autogenic training, meditation, yoga and other relaxation interventions. Lecture, discussion and practice sessions will be used.
Prerequisite: None
2 credit = 1 lecture, 1 laboratory/practice skills

PE 110 Defensive Tactics. This course will provide instruction and practice in the techniques of self-defense. Defensive tactics is primarily designed for students enrolled in the law enforcement program.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 123 Bowling. The course will emphasize the development of specific bowling skills. History, rules and etiquette will be presented. Fundamentals such as equipment knowledge, stance, approach, delivery, principles of movement to bowling, strike adjustment, spare bowling, league concept and scoring will be emphasized through actual bowling. This course is designed for any skill level.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 124 Golf. This is a basic course to develop the skills and knowledge of golf. The course includes the fundamentals of golf plus etiquette, rules and language of the game. This course is designed for any skill level. This course is a once-a-year offering.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 128 Weight Training. The course will entail a study of the structure and function of the muscular system and development of such through the use of weight resistance training.
Prerequisite: None
1 credit, plus 1 contact hour = 1 lecture, 1 laboratory

PE 129 Physical Conditioning. This course is designed for students desiring an aggressive, advanced approach to physical fitness. Pre- and post-fitness testing is combined with skill and technique in improving levels of cardiovascular function, strength, flexibility, endurance and power.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 131 Beginning Lyrical Jazz Dance. Beginning lyrical jazz is performed, in addition to some related musical theatre routines. This course includes conditioning, theory and technique, introduction to choreography (with computer software), prevention of dance injuries, dance history and significant issues in dance. This course is also available as THA 131.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 132 Beginning Tap Dance. Beginning tap dance techniques and routines are performed. This course will introduce students to basic through advanced tap dance movements. Units on the background and history of tap will be included. Students will be introduced to the LifeForms choreography software. All skill levels will accommodated. This course is also available as THA 132.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 133 Fitness Walking. This course is designed to help students improve their level of fitness through vigorous walking. Each student will develop a personalized, healthy life-style plan which integrates exercise, diet and stress management.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 134 Beginning Classical Ballet. This course is an introduction to basic classical ballet. Participation will include stretching, conditioning, ballet barre, centre work and combinations. Topics will include dance injury prevention, the theory of movement, and becoming familiar with significant people, events, and issues in the performing arts. Students will be introduced to the LifeForms choreography software. There is no mandatory public performance. This course is also available as THA 134.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

PE 141 Personal Health. This course is designed to develop attitudes, skills and habits favorable to healthful living. The mental, physical and social aspects of individual and community health are stressed.
Prerequisite: None
3 credits = 3 lecture

PE 143 Emergency Medical Care. This course provides the student with the basic first-aid procedures necessary for administrating to the sick and injured patient. The student successfully completing this course will receive American Red Cross certification in advanced first aid.
Prerequisite: None
3 credits = 3 lecture

PE 152 Baseball Theory. This course is designed to assist prospective baseball coaches to develop the skills, knowledge and strategies necessary to coach baseball from the amateur youth level to the interscholastic level. Baseball theory is structured for students who are beginners to students with previous baseball background. Offered winter semester only.
Prerequisite: None
2 credits = 2 lecture

PE 153 Basketball Theory. Basketball Theory teaches the fundamentals of offensive and defensive basketball. This course also teaches the tactics, techniques of scouting,and game plans associated with becoming a successful basketball coach. Basketball Theory is a course recommended for physical education majors and minors. The course will be structured for the beginner as well as the student with a basketball background. The course is open to all levels of basketball background.
Prerequisite: None
2 credits = 2 lecture

PE 231 Advanced Lyrical Jazz Dance. This course is designed for students with some dance background. The two areas of emphasis are (1) a progressively improved performance level, based on the level of student experience, and (2) an introduction to the skills of basic choreography, including the use of LifeForms software. Dance injury prevention, issues in performing arts and overall conditioning are included. This course is also available as THA 231.
Prerequisites: PE 131/THA 131
1 credit, plus 1 contact hour = 2 laboratory

PE 232 Advanced Tap Dance. Continuation of tap dance techniques and routines are performed. This course will continue concepts of basic and advanced tap dance movements. Units on the background history of tap will be included. Students will continue with choreography computer software. All skill levels will be accommodated. This course is also available as THA 232.
Prerequisite: PE 132/THA 132
1 credit, plus 1 contact hour = 2 laboratory

PE 234 Advanced Classical Ballet. This course is intended to enhance and challenge ballet dancers who are beyond the beginner level. Classes will include barre and centre work, stretching and conditioning, combinations (enchainement) and dance. Public performance is an option, if the opportunity is presented. This course is also available as THA 234.
Prerequisite: PE 134 or THA 134 or permission of instructor
1 credit, plus 1 contact hour = 2 laboratory

PHYSICAL SCIENCE
Math and Science Department (810) 989-5663

These courses are intended for students who have no background in the physical sciences, and are not majoring in a science curriculum, but are in need of a science laboratory course.

PHS 101 Foundation of the Physical Sciences. This course is designed to provide the student with a solid background in both the principles and the historical development of astronomy, physics, chemistry and meteorology. Experiments correlate closely

with lecture and emphasize observation, data collection, and the interpretation and effective communication of information. Prospective teachers and others interested in learning more about their physical world may find this course to be of value.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

PHS 131 History of Science. This is an interdisciplinary course that explores science through the medium of history. It allows one a look at science from the perspective of an outsider - much as a political scientist studies politics or an anthropologist explores indigenous cultures. At the same time, the student gains knowledge about where we are today, and how we got here, in our understanding of the structure of the universe, atomic theory, energy, motion, evolution by natural selection, and space and time. This course also is available as HIS 131.
NOTE: Students can only receive credit for PHS 131 or HIS 131, and course designation must be determined at the time of registration.
Prerequisite: None; ENG 102 recommended
4 credits = 4 lecture **CT**

PHYSICS
Math and Science Department (810) 989-5663

Two sequences in physics are available, as well as an introductory course. Students needing only a general introductory survey of physics for such areas as medicine, dentistry or the life sciences should complete Physics 121 and 122. Students following a curriculum which requires a strong physics background such as chemistry, geology, physics or engineering should complete Physics 221 and 222 by the end of their sophomore year.

Students intending a major in some phase of engineering may be required to take Physics 231 and should consult the college or university to which they intend to transfer.

Students needing only a brief introduction to physics or needing a preparatory course for the general sequences should take Physics 110.

PHY 110 Introduction to Physics. This is an introduction to the concepts, theories and principles of physics emphasizing the logical structure and general applicability of the science. Topics will be selected from the general areas of mechanics, heat, electricity and wave phenomena. Diverse laboratory experiences will be provided for students relative to their immediate and long-term goals.
Prerequisite: None
4 credits, plus 1 contact hour = 3 lecture, 2 laboratory

PHY 115 Introduction to Engineering. This course will familiarize students with the various branches of the engineering profession, the ethics and responsibilities of the professional engineer, and the skills and techniques necessary for the successful completion of an undergraduate engineering curriculum. The course includes the use of computer graphics and computer-based mathematics.
Prerequisite: Successful completion of, or concurrent enrollment in, MTH 113, and successful completion of EG 180.
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

PHY 121 College Physics I. This is a non-calculus introductory course for students needing a general background in physics. The course includes the study of motion, forces, momentum, energy, fluid statics and dynamics, wave motion, acoustics, temperature, heat and thermodynamics. Offered fall semester only.
Prerequisite: MTH 112, or appropriate placement by college assessment or ACT score
5 credits, plus 1 contact hours = (4 lecture, 2 laboratory)

PHY 122 College Physics II. This course includes the study of electricity, circuit theory, magnetism, radiation, geometric optics, interference, spectra, atomic structure and radioactivity. Offered winter semester only.
Prerequisite: Successful completion of PHY 121 or departmental consent
5 credits, plus 1 contact hours = 4 lecture, 2 laboratory

PHY 130 Physics for Technology Students. This course is a one-semester introduction to the principles of physics essential for students in post-secondary technology programs.
Prerequisite: MTH 112
5 credits, plus 1 contact hour = 4 lecture, 2 laboratory

PHY 221 Mechanics, Heat and Sound. This is an introductory course for students intending to major in a physical science or engineering. The course includes the study of motion, forces, momentum, energy, fluid statics and dynamics, wave motion, acoustics, temperature, heat and thermodynamics. Offered fall semester only.
Students should be concurrently enrolled in MTH 215 or a higher math course.
Prerequisite: MTH 114
5 credits, plus 1 contact hour = 4 lecture, 2 laboratory

PHY 222 Electricity, Light and Modern Physics. This course includes the study of static electricity, circuit theory, magnetism, radiation, geometric optics, interference, spectra, atomic structure, radioactivity and nuclear structure. Offered winter semester only.
Prerequisite: Successful completion of PHY 221 or departmental consent
5 credits, plus 1 contact hour = 4 lecture, 2 laboratory

PHY 231 Statics. This course is for students intending to major in civil or mechanical engineering, and includes the study of systems of forces, equilibrium, centroids, and an analysis of structures, friction and moments of inertia. This course may transfer as engineering credit. Offered winter semester only.
Prerequisite: Successful completion of PHY 221 and MTH 215
3 credits = 3 lecture

PHY 232 Introduction to Electric Circuits. This is a basic course to develop in students the skills, background and understanding necessary for using and designing electrical circuits in the fields of electrical, mechanical, industrial and computer engineering. Topics covered include electrical quantities and waveforms, Kirchhoff's laws, Electrical Networks, Nodal and Mesh analysis, Thevenin and Norton equivalent circuits, Sinusoidal Steady State responses, Filters, the Laplace Transform and Three Phase AC Power.
Prerequisite: MTH 215 and PHY 122 or PHY 222
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

POLICE WORK **(See Criminal Justice)**

POLITICAL SCIENCE
Social Science Department (810) 989-5707

PS 101 Introduction to Political Science. Institutions and principles of government utilizing the American experience at the national, state and local levels are examined. It will also include a study of international organizations and global interrelationships.
Prerequisite: None
3 credits = 3 lecture **GA GP**

PS 101H Introduction to Political Science, Honors. The course content consists of the concepts covered in the PS 101, Introduction to Political Science, with an emphasis on more in depth reading, analysis and writing about the topics of Political Science.
Prerequisite: Acceptance into the Honors Program
3 credits = 3 lecture **GA GP**

PS 140 Problems in Contemporary Affairs. The focus of this course will be on various current events, people, institutions and problems at the local, state, national and international levels.
Prerequisite: None
2 credits = 2 lecture

PS 150 Multicultural Awareness and Intercultural Communication. The course provides students with an opportunity to acquire an awareness of the diversity of cultures in the United States and throughout the world. It also provides an opportunity to develop the understanding and skills necessary for effective intercultural communication.
Prerequisite: None
2 credits = 2 lecture **GA**

PS 210 National Policies. This course offers a study of national policies and the national policy-making process, along with an examination of the interplay of politics and institutions relative to policy-making and implementation. Emphasis will be placed on the study of the various policy areas of the national government.
Prerequisite: None
3 credits = 3 lecture **GP with PS 220**

PS 220 State and Local Government. Students will study and analyze governmental structure, political processes and public policy at the state and local levels with emphasis on the experience in Michigan. This course is a once-a-year offering.
Prerequisite: None
3 credits = 3 lecture **GP with PS 210**

PS 230 International Relations. This course provides an analysis of contemporary world politics with particular emphasis on the development and growth of nations and their struggle for power.
Prerequisite: None
3 credits = 3 lecture **CT GA**

PRACTICAL NURSING
Nursing Department (810) 989-5675

PN 115 Dynamics of Human Relations. The course will introduce the practical nursing student to the theories and concepts of human development and behavior across the life span and communication skills. The focus will be on self-concept, stress and adaptation, therapeutic communication skills, group process, mental heath, chemical dependency, crisis intervention and psychosocial changes that take place throughout the lifespan. Nursing process and theories form the foundation to provide for caring nursing practice.
Prerequisite: Admission to the PN Program
3 credits = 3 lecture

PN 120 Nutritional Concepts. This is a basic course designed to introduce the concepts of nutrition influencing health and well-being. This course will enable the practical nursing student to understand dietary modification necessary to maintain and restore health throughout the life span, in various cultures. This is an introductory course designed for the nursing student based on the fundamentals of nutrition. The content emphasizes the positive correlation between nutrition and health status throughout the life span, in various cultures.
Prerequisite: Admission to the PN Program
1.5 credits = 1.5 lecture

PN 130 Introduction to Nursing Concepts. This course is an introduction to nursing concepts related to the care and caring of the individual patient. A holistic approach using the nursing process is emphasized as the foundation of nursing practice. This course focuses on the acquisition of basic nursing skills and fundamental theories. The role of the direct care provider, communicator, teacher, manager and member of the nursing profession are presented.
Prerequisites: Admission to PN Program
5 credits = 5 lecture

PN 130L Introduction to Nursing Concepts Clinical. The clinical component of Introduction to Nursing Concepts provides an opportunity for the student to develop basic nursing skills in laboratory and clinical settings.
Prerequisite: Admission to PN Program
4.5 credits, plus 9 contact hours = 13.5 laboratory

PN 140 Pharmacology I. This course is an introduction to the use of pharmaceutical agents in nursing. Concepts include the methods and principles of pharmacology, the classification of drugs and drug administration using the Nursing Process. Drug classifications presented are drugs affecting the autonomic nervous system, cardiovascular system, blood components and blood coagulation and the kidney and body fluid composition. The role of the nurse as provider of care is emphasized, along with legal and ethical accountability.
Prerequisite: PN 130/130L
1 credit = 1 lecture

PN 150 Adult Nursing I. Development in the art and science of nursing as it relates to the adult medical-surgical patient is the focus of this course. The practical nursing student will use the nursing process in the delivery of patient care. This course integrates previous knowledge with medical-surgical principles.
Prerequisite: PN 130/130L
2 credits = 2 lecture

PN 150L Adult Nursing I Clinical. This course provides an opportunity for the student to care for adult patients in medical-surgical settings using the nursing process and applying concepts of a caring, holistic nursing approach.
Prerequisite: PN 130/130L
2 credits, plus 4 contacts = 6 laboratory

PN 160 Maternal Newborn Nursing. This course provides an opportunity for the student to study culturally sensitive family-centered, maternal and newborn health using the nursing process. It includes reproduction, gestation, pregnancy, labor and delivery, postpartum and the newborn infant. The focus is on normal, deviations or complications in each area, and related nursing care.
Prerequisites: PN 130/130L
2 credits = 2 lecture

PN 160L Maternal Newborn Nursing Clinical. This course provides an opportunity for the student to use the nursing process in applying maternal newborn concepts of nursing to the patient.
Prerequisites: PN 130/130L
0.75 credits, plus 1.5 contact hours = 2.25 laboratory

PN 165 Child-Adolescent Nursing. This course will present concepts of health and illness from birth throughout adolescence. Human developmental theories are applied to the nursing process as it relates to the care of the child, adolescent and family.
Prerequisites: PN 130/130L
2 credits = 2 lecture

PN 165L Child-Adolescent Nursing Clinical. The clinical component of Child-Adolescent Nursing provides an opportunity for the student to develop skills in the nursing care of the child-adolescent and family.
Prerequisites: PN 130/130L
0.75 credits, plus 1.5 contacts = 2.25 laboratory

PN 170 Pharmacology II. This course is a continuation of PN 140 in the use of pharmaceutical agents in nursing. Concepts include the methods and principles of pharmacology, the classification of drugs and drug administration using the nursing process. Drug classifications presented are: drugs affecting the endocrine system, gastrointestinal system, nervous system and respiratory system in addition to drug therapy in infection and cancer. The role of the nurse as provider of care is emphasized, along with legal and ethical accountability.
Prerequisite: PN 140 and PN 150/150L
1.5 credit = 1.5 lecture

PN 185 Contemporary Practical Nursing. This course focuses on preparation for entry into practice and the professional role of the practical nurse within the health care system. Theoretical concepts of leadership and management are introduced.
Prerequisites: PN 150/150L
2 credits = 2 lecture

PN 190 Adult Nursing II. Continued development in the art and science of nursing as it relates to the adult medical-surgical patient will be the focus of this course. The practical nursing student will use the nursing process in the delivery of patient care. This course integrates previous knowledge with medical-surgical principles.
Prerequisites: PN 150/150L
5.5 credits = 5.5 lecture

PN 190L Adult Nursing II Clinical. This course provides an opportunity for the student to care for adult patients in medical-surgical and extended care settings using the nursing process and applying concepts of a caring, holistic nursing approach. Prerequisites: PN 150/150L
5 credits, plus 10 contacts = 15 laboratory

PSYCHOLOGY
Social Science Department (810) 989-5707

PSY 170 Psychology of Effective Learning. This course is intended for students who wish to improve their skills and strategies for learning and memory. The topics covered include an introduction to cognitive science; the comprehension of both oral and written material; attention; memory and memory retrieval; strategies for improving memory; problem solving; creativity; learning styles; techniques for motivation; test anxiety; and styles for self-management, including learning how to set and achieve study goals; learning more with less time and effort, increasing test taking abilities, and improving attitudes toward learning. The course provides students with techniques to reduce psychological and social stressors that can interfere with successful learning. Regardless of the area of concentration or the career, the skills and concepts learned in this course will be useful in learning throughout a college career and in life after college.
Prerequisite: None
4 credits = 4 lecture **CT**

PSY 180 Introduction to Psychology. This course is an introduction to the scientific study and explanation of human behavior, surveying such topics as the biological basis of behavior, development, consciousness and its alterations, sensation, perception, cognition, emotion, motivation, learning, intelligence, personality, abnormal behavior and treatment. This course covers the role of theory, research findings and practical applications in psychology.
Prerequisite: None. Although no prerequisite exists, PSY 180 students are strongly encouraged to wait until their second semester or until they have completed 12 semester hours.
4 credits = 4 lecture **CT**

PSY 190 Introduction to Empathy and Counseling Techniques. This course is designed to introduce students to the basic skills of "helping" and will focus on the practical issues of the entry-level paraprofessional. Major emphasis will be placed on the process of communication and the barriers to being an effective communicator. Special populations and situations such as suicide, substance abuse, values clarification, stress management and mental illness will be discussed. This course will benefit students who plan to work directly with consumers in a human services setting. This course is a once-a-year offering.
Prerequisites: PSY 180
3 credits = 3 lecture

PSY 200 Social Psychology. This course studies underlying processes of human interaction, focusing on motives, attitudes, norms, the socialization process, social factors of perception and personality development. Emphasis will be on the development of the individual and human nature in a social environment. This course is a once-a-year offering.
Prerequisite: SOC 101 or PSY 180. Students may register for PSY 200 or SOC 200, but not for both.
3 credits = 3 lecture

PSY 210 Child Psychology. This course examines the application of psychological principles and research to the understanding of the behavior of children from the prenatal through later childhood periods. This course surveys physical, cognitive, and psychosocial development in the period prior to adolescence. The course is not recommended for students who have taken PSY 220.
Prerequisite: PSY 180
3 credits = 3 lecture

PSY 215 Adolescent Psychology. This course examines the adolescent from biological, cognitive and psychosocial perspectives. Normal processes of adolescence, such as self identity, puberty, moral development, sexual behavior and mature modes of thinking and reasoning are covered. Close attention is given to special problems of adolescence, including teen suicide, adolescent pregnancy, delinquency and eating disorders. This course is a once-a-year offering.
Prerequisite: PSY 180
3 credits = 3 lecture

PSY 220 Life Span Developmental Psychology. This course is a survey of the psychology of human growth and development from conception to death, integrating physical, intellectual, social and personality development through the life cycle. Among the special topics covered are genetic counseling and the amniocentesis debate; effects of drugs, tobacco and alcohol on the unborn child; learning disabilities and psychological problems in children; teenage pregnancies and suicide; the mid-life crisis; and death and dying.
Prerequisite: PSY 180
4 credits = 4 lecture

PSY 225 Adolescent and Adult Psychology. This course is designed for students who have completed a course in child psychology and wish to study the remainder of the lifespan. The course begins at mid-semester and is open on a limited basis to students who have completed child psychology, but is not open to students who have taken PSY 220.
Prerequisite: PSY 210 and permission of instructor
2 credits = 2 lecture (one-half semester)

PSY 230 Psychology of Effective Leadership and Supervision. This course will explore traditional and contemporary theories of leadership and management with a specific focus on the psychological concepts behind the theories, and the practical application of knowledge, skills and abilities relate to effective supervision. Particular emphasis will be given to concepts of motivation, self-awareness, stress management, problem-solving, group processes, communication skills and conflict management.
Prerequisite: PSY 180 or BUS 155
4 credits = 4 lecture

PSY 240 The Psychology of Adjustment and Mental Health. This course emphasizes what is currently known about mental health and effective coping mechanisms. The application of psychological principles to healthy intrapersonal and interpersonal relationships are covered. This course is a once-a-year offering.
Prerequisite: PSY 180
3 credits = 3 lecture

PSY 260 Abnormal Psychology. This course studies abnormal or maladaptive behavior – its causes, symptoms, treatment and prevention. Major theoretical and research perspectives are covered in a survey of the major categories of mental disorders.
Prerequisite: PSY 180
4 credits = 4 lecture

PSY 270 Psychology of Women. Emphasis of this course will be on the study of the development of sex-typed behavior and on how social expectations affect the self concept, achievement, sexuality and life decisions of women. Other topics will include the physiological basis of sex differences, the effect of body states on psyche and the psychopathology and treatment of women.
Prerequisite: PSY 180
3 credits = 3 lecture

PSY 275 Psychology of Men. This course will review the relevant knowledge in the emerging field of masculinity studies. The dark side of masculinity will be a central feature of this course as well as the various psychological theories pertaining to masculinity. Relevant readings of contemporary materials will be assigned in addition to the textbook.
Prerequisite: PSY 180
3 credits = 3 lecture

PSY 280 Human Sexuality. Human Sexuality is designed to introduce students to the biological, psychological and social factors that regulate their sexuality. Part of the course deals with the anatomical, physiological and genetic determinants of sexuality, including the sexual anatomy of men and women, hormonal regulation of sexual function, fertilization, pregnancy, birth, conception control and sexually-transmitted diseases. The course also emphasizes psychological, behavioral and social factors that influence sexuality, including the examination of human sexual behavior, sexual response, orgasm, psychosexual development, variant sexual behavior, sexual ethics and the genesis of sex roles. The course is recommended for, but not limited to, students considering the helping professions.
Prerequisite: PSY 180
4 credits = 4 lecture

QUALITY ASSURANCE

Engineering Technology Department (810) 989-5754

QA 117 Statistical Process Control I. This course focuses on the application of various charting techniques, statistical tools and sampling methodology needed to determine process capability and control.
Prerequisite: None
3 credits = 3 lecture **OC**

RADIO FREQUENCY IDENTIFICATION TECHNOLOGY

Engineering Technology Department (810) 989-5754

RFID 150 RFID Internship. This course consists of work experience in industry relating to radio frequency identification (80 hours of work experience related to the objectives equals 1 credit). This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training agreement developed which is agreed upon by the student, employer and the college. Special requirements may be necessary.
Prerequisite: Permission of instructor and completion of first semester of RFID certificate program (GPA ≥ 2.5 in major area of study)
2 credits (160 hours of work experience) = 2 credits

RFID 180 Radio Frequency ID Fundamentals. This course covers radio frequency identification (RFID) concepts and fundamentals, and how emerging electronic product code (EPCglobal) standards are influencing adoption. Content includes RFID capabilities, current applications of RFID in business and practical ways to articulate "use cases" for this new technology to potential employers and peers.
Prerequisite: None
3 credits, plus 1 contact hour = 2 lecture, 2 laboratory

RFID 181 TagNet Middleware. This course covers TagNet middleware, specifically how to install, configure and implement various use cases found in the supply chain. Topics include capabilities of TagNet and how various use case factors influence read rates and reliability.
Co-requisite: RFID 180
3 credits, plus 1 contact = 2 lecture, 2 laboratory

RFID 182 Technology Use in the Supply Chain. This course will use case studies as a tool on how Radio Frequency Identification (RFID) has been used in the supply chain. Examples from the retail, pharmaceutical, defense, manufacturing & logistics industries will discuss how companies have gained competitive advantages by implementing this technology. Topics emphasize impact upon business processes, securing of transmitted data and financial analyses.
Prerequisite: RFID 180
3 credits, plus 1 contact = 2 lecture, 2 laboratory

RFID 183 RFID Standards and Certification. Students will identify, evaluate, and categorize RFID system components with respect to industry standards. Additional laboratory work with hands-on practical problems will be performed and rigorously tested. Problem-solving, teamwork, communication and analytical thinking are integrated into the course work. Set up and management of an RFID system will be developed through class projects.
Prerequisite: RFID 180 and RFID 181
3 credits, plus 1 contact = 2 lecture, 2 laboratory

RADIOLOGIC TECHNOLOGY
Health and Human Services Department (810) 989-5575

RAD 101 Introduction to Radiologic Technology. This course contains a complete introduction to radiologic technology, providing the student with information regarding the profession as well as cognitive information to ensure safe clinical practice. Radiation safety and infection control will be discussed along with social and legal constraints placed upon the healthcare professional. Radiology professional organizations will be recognized. This course will give students knowledge on the methods of meeting the patient's physical needs during a radiographic exam. Patient care situations unique to the radiology department will be discussed. The role of the technologist will be discussed with concern to patient teaching and making the patient as comfortable as possible to ensure a successful examination.
Prerequisite: Acceptance into Radiologic Technology program
3 credits = 3 lecture

RAD 102 Patient Care. This course is a continued progression in learning for development of the student as a radiographer professional. This course provides instruction in pharmacology and drug administration for the medical imaging professional. The student will review anatomy and physiology of the various systems of the body imaged. Acute situations of patients, contrast radiography examinations, bedside radiography and special imaging modalities also will be discussed.
Prerequisite: RAD 101
2 credits = 2 lecture

RAD 110 Radiographic Positioning I. This course incorporates an introduction to radiographic terminology and preliminary steps in radiography. The student is provided with a thorough understanding of upper extremity, lower extremity, thoracic, vertebral, and pelvic skeletal and body structures and their anatomic relationships. This course involves the study of radiographic positions of the chest and abdomen.
Prerequisite: Acceptance into Radiologic Technology program
2.25 credits = 2.25 lecture

RAD 111 Radiographic Positioning II. This course is designed to provide instruction in radiographic examinations of the upper extremity, shoulder girdle, lower extremity, pelvis, vertebral column and thorax. Positioning skills, patient care, radiation protection and film critique will be emphasized. This course includes a lab for practice of positioning skills.
Prerequisite: RAD 110
5 credits, plus 1 contact hour = 4 lecture, 2 laboratory

RAD 112 Radiographic Positioning III. This course is designed to provide instruction in contrast radiographic examinations, mammography, pediatric and geriatric imaging. Composition, use and effects of contrast media on the human body are discussed. Positioning skills, patient care, radiation protection and film critique will be emphasized. This course includes a lab for practice of positioning skills.
Prerequisite: RAD 111
3.5 credits, plus .5 contact hour = 3 lecture, 1 laboratory

RAD 113 Radiographic Positioning IV. This course is designed to provide instruction in radiographic examinations of the skull. The student is provided with a thorough understanding of skeletal structures of the skull and their anatomic relationships.

Positioning skills, patient care, radiation protection and film critique will be emphasized. This course includes a lab for practice of positioning skills.
Prerequisite: RAD 112
1 credit, plus .5 contact hour = 1 lecture, .5 laboratory

RAD 120 Radiographic Imaging I. This course provides an in depth analysis of image formation, construction and function of film, intensifying screens, cassettes, film processors, darkroom chemistry, film sensitometry, X-ray equipment and radiographic equipment accessories. This course will cover the factors that affect the photographic properties of the radiographic image. Visibility of detail, contrast, density and geometric properties of the radiographic image will be discussed along with manipulation of exposure factors and how it affects the resultant radiographic image.
Prerequisite: RAD 101
2.5 credits = 2.5 lecture

RAD 121 Radiographic Imaging II. In this course the student will become familiar with radiographic principles and conversion formulas. Emphasis is placed on the following conversion formulas: reciprocity law, inverse square law, 15% rule, magnification, grid conversions and screen conversions. The student will become familiar with image evaluation and application to radiographic principles, dedicated units and automatic exposure control. This course will also concern itself with atomic structure, physical properties and phenomenon of the universe, as well as properties of electricity and its generation. The student will study the basic X-ray circuitry and equipment function. Topics to be covered are series/parallel circuits, X-ray tubes and single/three phase current generations.
Prerequisite: RAD 120
2.5 credits = 2.5 lecture

RAD 122 Radiographic Imaging III. This course will give the student the background and practices necessary to minimize radiation exposure to themselves and patients in order to function in the clinical environment. Federal and State Radiation Exposure Standards will also be covered.
Prerequisite: RAD 121
1.5 credits = 1.5 lecture

RAD 130L Radiographic Clinical Education I. This course is devised to provide the student with the practical application, in a supervised clinical setting, of the theory covered in RAD 101. Rotations through selected areas of the radiology department at the clinical sites allow the student to gain firsthand experiences in file room image management and transportation of patients. The student will observe, assist and perform basic radiographic procedures (chest, abdomen, and extremities) with direct supervision.
Prerequisites: RAD 101
4 credits, plus 12 contact hours = 16 laboratory

RAD 131L Radiographic Clinical Education II. This course is a continuation of Radiographic Clinical Education I with students performing radiographic examinations with direct supervision in clinical education centers. Emphasis is placed on upper and lower extremities, spine examinations, contrast media examinations and venipuncture clinical experience.
Prerequisite: RAD 130L
4 credits, plus 12 contact hours = 16 laboratory

RAD 132L Radiographic Clinical Education III. A continuation of Clinical Education II with students performing radiographic examinations under direct supervision in the clinical education centers. Emphasis is placed on the spine, skull, mammography, pediatric and geriatric imaging. Students will begin to perform procedures with indirect supervision.
Prerequisite: RAD 131L
1.5 credits, plus 4.5 contacts = 6 laboratory

RAD 201 Radiographic Anatomy & Physiology. Students will participate in image evaluation. Anatomical variations, artifacts, positioning techniques, quality technical factors and proper image identification will be discussed. This course investigates disease with its origins, causes and effects upon the body as an integrate whole. Pathology relevant to radiographic procedures will be discussed.
Prerequisite: RAD 102
4 credits = 4 lecture

RAD 210 Radiographic Positioning V. This course is designed to provide instruction in radiographic examinations in non-routine situations. Mobile and surgical radiography as well as trauma radiography, terms, injuries and care are discussed. Instruction of special views of the upper and lower extremities, vertebral column, pelvis, thorax and skull is provided. Positioning skills, patient care, radiation protection and film critique will be emphasized. This course includes a lab for practice of positioning skills.
Prerequisite: RAD 113
5 credits, plus 1 contact hour = 4 lecture, 2 laboratory

RAD 220 Radiographic Imaging IV. Upon completion of this course, the student will be able to identify normal anatomical structures in coronal, transverse and sagittal planes. The student will be able to relate sectional anatomy in CT and MRI images. This course will include a series of lectures providing the student with foundation knowledge in the special imaging modalities. Modalities discussed are Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine, Angiography, Ultrasound, Radiation Oncology and Mammography.
Prerequisite: RAD 122
3 credits = 3 lecture

RAD 221 Radiographic Imaging V. This course will introduce the student to fundamental principles of computer technology, historical development, types of computers, functional components of a computer and applications in radiology and digital imaging processing. Discussion of computerized radiography and indirect and direct digital systems will also be included.
Prerequisite: RAD 220
3 credits = 3 lecture

RAD 222 Radiation Biology. Students will study the effects that radiation has on the human body. Among the topics covered will be the somatic and genetic effects of radiation and acute radiation syndromes.
Prerequisite: RAD 122
1.5 credits = 1.5 lecture

RAD 230L Radiographic Clinical Education IV. A continuation of Radiographic Clinical Education III with students performing procedures taught in previous clinical courses. Emphasis is placed on the radiography of the skull and special procedures.

There is a concentration on perfection of clinical performance with 40 hours a week clinical rotations without other courses. Introduction of off-shift rotations will take place.
Prerequisite: RAD 132L
3.75 credits, plus 11.25 contact hours = 15 laboratory

RAD 231L Radiographic Clinical Education V. A continuation of Radiographic Clinical Education IV with students perfecting positioning skills and learning to work independently. Emphasis is on non-routine radiographic procedures such as trauma radiography, mobile exams, operating room participation and special view examinations.
Prerequisite: RAD 230L
6 credits, plus 18 contacts = 24 laboratory

RAD 232L Radiographic Clinical Education VI. A continuation of Radiographic Clinical Education V with students striving for a higher degree of proficiency and continuing to advance into a more independent mode, performing more cases under indirect supervision on exams in which competency has been proven. Emphasis is on special imaging modalities rotations to enlighten the student for possible professional development.
Prerequisite: RAD 231L
6 credits, plus 18 contact hours = 24 laboratory

RAD 233L Radiographic Clinical Education VII. This course is a continuation of Radiographic Clinical Education VI with students practicing positioning skills with indirect supervision. Emphasis is placed on completing clinical competency requirements. Rotations through special imaging modalities are also completed.
Prerequisite: RAD 232L
2.25 credits, plus 6.75 contact hours = 9 laboratory

RAD 240 Radiologic Seminar. This course prepares students to graduate and to enter in the transition of the role of a professional healthcare worker. This course gives an in depth analysis of professional competencies required for entry into the workplace including: radiographic procedures, patient care, image production and evaluation, equipment operation and maintenance, radiation protection and evaluation processes.
Prerequisites: RAD 120 and RAD 122 and RAD 221
2.25 credits = 2.25 lecture

READING

Communications Department (810) 989-5578

RD 050 Introduction to College Reading I. This course is designed to improve a student's reading comprehension, vocabulary and thinking skills as it applies to being successful in college. This class can improve a student's fluency and flexibility within reading and especially learning to master written material in college. Out-of-class lab practice time is required.
Prerequisite: None (possible placement from assessment results)
3 credits = 3 lecture

RD 075 Study Skills. This course focuses on the study skills necessary to help students process, acquire and maintain information. The emphasis will be on developing students' skills in note taking, study reading, studying, exam taking and physical and psychological preparation for learning.
Prerequisite: None
1 credit = 1 lecture

ROBOTICS/AUTOMATION TECHNOLOGY
Engineering Technology Department (810) 989-5754

IA 100 Electrical Power & Control Circuits I. This course focuses on the fundamentals of relay circuitry, electric motor control, automation, logic circuits, machine tool applications, blueprint reading, laboratory wiring of D.C. motors and A.C. single phase, and three phase motor control. This course is the same as AET 100.
Prerequisite: MTH 101 or appropriate placement by college assessment or ACT score
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

IA 101 Introduction to Robotics/Automation. This course is designed to introduce the student to the fascinating field of robotics and automation, and to provide the student with a general overview of the technologies that are incorporated in an automated system. These technologies include hydraulics, pneumatics, electrical/electronics, machine building, PLCs, robots and computers. The student will build and automate typical robots using PLCs. Students will also work with high-level robots, machine vision and computers. In addition to technicians, this course would be beneficial to anyone who is interested in, affected by, or is otherwise in charge of making decisions relating to robotics and automation.
Prerequisite: MTH 101 or appropriate placement by college assessment or ACT score
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

IA 102 Programmable Logic Controllers. This course introduces students to programmable logic controllers (PLCs). It focuses on the underlying principles of how PLCs work and provides students with the knowledge and "hands-on" training to install, program, modify, interface, troubleshoot and maintain PLC systems. Programming is done both on- and off-line. No previous knowledge of PLC systems or programming is required. This course is the same as AET 102.
Prerequisite: IA 100/AET 100 or ELT 130A and ELT 130B
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory **CL**

IA 143 Fluid Power & Control Circuits I. This course provides an introduction to fluid power. It focuses on the concepts, physical laws, principles of operation and applications of components and circuits found in modern fluid power systems. This course will provide students with the knowledge and "hands-on" training to install, modify, troubleshoot, maintain and repair basic fluid power components, circuits and systems. No previous knowledge of fluid power systems is required. This course is the same as AET 143.
Prerequisite: MTH 101 or appropriate placement by college assessment or ACT score
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

IA 150 Industrial Automation Co-op. This course consists of work experience in industry relating to industrial automation (each 80 hours of work experience related to the objectives equals 1 credit). This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training agreement developed which is agreed upon by the student, employer

and the college. Special requirements may be necessary.
Prerequisite: Permission of instructor and first year in Industrial Automation program (GPA> 2.5 in major area of study) or employer initiated request.
1 to 6 credits (80 hours of work experience = 1 credit) = 1 to 6 lecture/laboratory

IA 201 Advanced Robotics & Programmable Controls. This course is designed to provide the student with an understanding of how to integrate components, equipment and work cells into a completely automated system. The areas of study include computer and robot programming, PLCs, data acquisition, accessing the computer's hardware, computer communication and control, and advanced sensors such as machine vision.
Prerequisite: IA 101 and IA 102
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory **CL**

IA 243 Fluid Power & Control Circuits II. This course is a continuation of IA 143. Topics studied include pneumatic logic, cartridge valves and electro-fluid power components, circuits and systems utilizing discrete, proportional and servo control. Programmable controllers will be used in addition to pneumatic logic as a means of controlling fluid power components and systems.
Prerequisites: IA 143
3 credits, plus 3 contact hours = 2 lecture, 4 laboratory

SOCIOLOGY
Social Science Department (810) 989-5707

Sociology is an introduction to human behavior which is helpful to students striving for a better understanding of themselves and others. Sociology is an essential part of the educational background for any career requiring understanding of group organization and functioning or understanding individuals and their motivations, needs, satisfactions and problems. Any occupation or profession providing services to people - social work, education, health, law, business and business administration, marketing, sales, corrections, rehabilitation, government, research and planning - needs sociology at the undergraduate level of preparation.

Social Work is committed to action that assists people in achieving the satisfaction of their needs in society. This broad commitment permits the social worker to choose from a wide range of professional settings, including public welfare, children and youth services, mental health centers, juvenile courts, community action programs and services for the aged. Students planning to transfer to a university as a social work major should have a strong background in liberal arts. A suggested program of study would include English 101, English 102, Political Science 101, Sociology 101, Sociology 110, Sociology 160, Psychology 180, psychology electives, science electives, humanities electives, sociology/anthropology electives and general electives totalling 62 credit hours. Since the requirements of specific universities vary greatly, consultation with a counselor or faculty advisor is strongly recommended.

For students who major in sociology, this curriculum provides the foundation for occupations that need to know how to deal with people, their problems and their social organizations. Undergraduate training in sociology leads to careers in government, police and corrections, juvenile and probation work, census work, city planning, personnel, marketing research, sales and administration. In addition, it prepares students for careers in international affairs as well as undergraduate and graduate teaching and study in sociology and social work. A suggested program of study for the

sociology major planning to transfer to a four-year institution should include: English 101, English 102, Political Science 101, Sociology 101, Sociology 110, Anthropology 171, Psychology 180, science electives, psychology electives, humanities electives, sociology electives and general electives totalling 62 credit hours.

SOC 101 Principles of Sociology. This course is an introduction to the study of human groups. Topics to be emphasized include culture, socialization, institutions, deviant behavior, social control and social change.
Prerequisite: None
3 credits = 3 lecture **GA**

SOC 101H Principles of Sociology, Honors. This course is an introduction to the study of human groups. Topics to be emphasized include culture, socialization, institutions, deviant behavior, social control and social change. Students will be expected to do more writing and class participation than in SOC 101.
Prerequisite: Acceptance into the Honors Program
3 credits = 3 lecture **GA CT**

SOC 110 Social Problems. This course considers the problems of contemporary urban-industrialized United States, including population, crime, race relations, poverty, substance abuse, war and various institutions.
Prerequisite: SOC 101
3 credits = 3 lecture **CT**

SOC 160 Marriage and Family. This course studies the structural and interactional aspects of marriage and family. Topics to be emphasized include mate selection, alternative lifestyles, marital adjustment, parenting, family violence and divorce. This course is a once-a-year offering.
Prerequisite: SOC 101
3 credits = 3 lecture

SOC 170 Sociology of Aging. Personal and cultural aspects of aging in relation to social, psychological and economic problems of our aged minority are studied to provide basic understanding for persons who come into daily contact with aging citizens at home, in health or social service agencies, or in business and industry. This course is a once-a-year offering.
Prerequisite: SOC 101
3 lecture = 3 credits

SOC 200 Social Psychology. This course studies the underlying processes of human interaction focusing on motives, attitudes, norms, the socialization process, social factors of perception and personality development. Emphasis will be on the development of the individual and human nature in a social environment. This course is a once-a-year offering.
Prerequisite: SOC 101 or PSY 180. Students may register for PSY 200 or SOC 200, but not for both.
3 credits = 3 lecture

SOC 201 Minority Relations. This course focuses on racial and ethnic minorities, stressing a global perspective. Various aspects of prejudice, discrimination, assimilation, pluralism and possibilities of change in the United States and other countries are studied. This course is a once-a-year offering.
Prerequisite: SOC 101
3 credits = 3 lecture **GA CT**

SOC 210 Introduction to Social Services. This course is an overview of the philosophy, development, setting and operation of social services. Visitations to local agencies, videos, guest lectures and other voluntary experiences may be arranged by the instructor to promote greater awareness. This course is for students interested in pursuing a career in social work. This course is a once-a-year offering.
Prerequisite: SOC 101
3 credits = 3 lecture **CT**

SOC 211 Criminology. This course is an introduction to the study of crime in society. Topics to be emphasized include the definition of crime, the causes of crime, the F.B.I. Uniform Crime Index, criminal statistics and the various types of crime and criminals. This course is especially designed for those students with an interest in the criminal justice system. This course is a once-a-year offering.
Prerequisite: SOC 101
3 credits = 3 lecture

SPANISH
Communications Department (810) 989-5578

SP 101 Introductory Spanish I. This course takes a conversational approach towards the understanding and usage of the fundamentals of the language. Systematic techniques are employed to develop efficiency in pronunciation, reading, writing and speaking at a beginning level. Audio materials are available to enhance students' speaking and comprehension skills.
Prerequisite: None
4 credits = 4 lecture

SP 102 Introductory Spanish II. Students should obtain a thorough knowledge of the fundamentals of the language and a broad assimilation of a basic vocabulary for practical usage. This class is open to students who have had one semester of the language in college or one year in high school.
Prerequisite: SP 101
4 credits = 4 lecture

SP 203 Intermediate Spanish I. This course offers a conversational approach into the study of the Spanish-speaking countries. Strong emphasis is placed on situations that enable students to think in Spanish, inducing them to express themselves in the language with more confidence. By the end of the semester, students should be equipped to discuss a diversity of cultural subjects pertaining to the people's culture. The class is open to students who have completed one year of college Spanish or a minimum of two years in high school.
Prerequisite: SP 102
4 credits = 4 lecture

SP 204 Intermediate Spanish II. A systematic review of the fundamentals along with vocabulary enrichment leads students to a more effective self expression in the language. Open to students who have had at least two semesters of college Spanish or a minimum of two years in high school.
Prerequisite: SP 203
4 credits = 4 lecture

SP 257 Selected Topics in Spanish. This course is an intensive study of one or more specialized interests in literature, language, and/or culture. Topics will be selected by the discipline. Those students planning to transfer and use this course as an elective for a Spanish major or minor will be expected to do their coursework in Spanish. Depending on the course, the instructor may also give alternative assignments in English to students interested in Spanish culture and literature who are taking the course for electives in the humanities.
Prerequisite: SP 101 and SP 102 or permission of instructor
1-3 credits = 1-3 lecture

SPEECH COMMUNICATION
Communications Department (810) 989-5578

SPC 101 Speech Communication. This is a beginning course in human communication dealing with speaking before an audience, small group and one-to-one communication. This course includes the study of speech psychology, organization, practice in the presentation of different types of speeches, listening, etc. The course is designed to help meet the communication needs of any student in any chosen profession.
Prerequisite: None
3 credits = 3 lecture **OC**

SPC 101H Speech Communication, Honors. This course will offer students the opportunity to learn speaking and listening skills and apply them to current or future professions. Communications skills learned in this course will be applicable to any major field of study. The Honors section will use more student-oriented techniques and provide the student the opportunity to learn about other cultures by including a cultural awareness assignment.
Prerequisite: Acceptance into the Honors Program
3 credits = 3 lecture **OC**

SPC 102 Advanced Speech Communication. This course presents practice and theory in persuasive, informative and non-verbal communication. Students will also be involved in some educational role playing as well as the study of emotional appeals, interviewing, the art of conversation, argumentation and persuasion in contemporary society. This course is highly recommended for students in the fields of business, education, psychology and political science. It is also recommended for other students who wish to expand their communication knowledge and skills.
Prerequisite: SPC 101
3 credits = 3 lecture

STUDENT DEVELOPMENT
Student Success Center (810) 989-5520

SD 110 Career Development. This is a course for students who are exploring or questioning their career choice. Classroom interaction and activity foster a learning environment that promotes self-awareness of values, interests, personality, skills and lifestyle goals. Students will investigate careers by the use of occupational interviews and research using the internet and computerized software applications. The goal of this course is to identify career alternatives and learn the decision making process for future career choices.
Prerequisite: None
1 credit = 1 lecture

SD 120 Assertive Behavior. This course is designed to help students learn to express beliefs, feelings, needs and preferences in an honest, direct and appropriate manner. Students will learn to distinguish between non-assertive, assertive and aggressive responses as well as to identify the basic tenets of human rights. Assertive skills will be learned through in-class discussion, lecture, reading material and role playing.
Prerequisite: None
1 credit = 1 lecture **OC**

SD 130 Job Search and Employment Skills. The goal of this course is to develop the skills necessary to secure employment. The course includes job search techniques, resume writing, interviewing techniques, applications and methods to overcome employment barriers.
Prerequisite: None
1 credit = 1 lecture

SD 140 College Success. This course is designed to provide students with insight into their strengths, weaknesses, and preferred style of operation and learning. With heightened awareness in these areas the student can make better use of the campus resources and experience a more successful college career. An exploration of the resources at St. Clair County Community College is included and utilization is encouraged.
Prerequisite: None
2 credits = 2 lecture

SD 150 Stress Management. This course covers the theoretical and practical application components of stress management. Lectures on stress pathophysiology and psychophysiology provide the conceptual understanding. Participants assess their stress level and are taught various techniques to lower and maintain a healthy level. The main focus is on relaxation techniques and how to implement them into your daily routine.
Prerequisite: None
1 credit = 1 lecture

THEATRE ARTS
Visual and Performing Arts Department (810) 989-5709

THA 101 Fundamentals of Theatre. A basic introduction to all phases of theatre is the focus of this course. A background of theatrical history and techniques of acting and play production is studied, in addition to stagecraft, costuming, make-up, lighting and characterization.
Prerequisite: None
3 credits = 3 lecture

THA 102 Stage Craft. This course presents a study of stage craft learned through lecture and laboratory experience. Students will build sets and crew in the many areas related to the production of an all-college play, i.e., lighting, design and costuming. Offered winter semester only.
Prerequisite: None
3 credits = 3 lecture/laboratory

THA 104A-D Theatre Practicum. This course will serve as a description for THA 104A, 104B, 104C and 104D. One course credit will be earned for a student's major participation in the production and/or performance of college plays. Participation includes significant work in the following areas: acting, directing, lighting, design, makeup, set construction, properties, costuming and publicity. One hour credit may be earned per semester.
Prerequisite: Permission of instructor or department chairperson is required
1 credit, plus 2 contact hours = 3 laboratory

THA 105 Oral Interpretation. This course develops and improves skills in oral reading. Emphasis is placed on understanding the meaning of literature and on transmitting this meaning to an audience. Oral performances and a study of the theories of interpretation comprise the semester's work. During the semester, an evening performance or reader's theatre will be presented. Offered fall semester only.
Prerequisite: None
3 credits = 3 lecture **OC**

THA 106 Fundamentals of Acting. This fundamental acting course will lead students through the process of character development in theories and techniques of acting by using games, exercise and scene work.
Prerequisite: None
3 credits = 3 lecture

THA 107 Fundamentals of Stage Makeup. This course provides an examination of theory and practical experience in creating and actualizing theatrical makeup design for the stage.
Prerequisite: None
3 credits = 3 lecture

THA 131 Beginning Lyrical Jazz Dance. Beginning lyrical jazz is performed, in addition to some related musical theatre routines. This course includes conditioning, theory and technique, introduction to choreography (with computer software), prevention of dance injuries, dance history and significant issues in dance. This class also is available as PE 131.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

THA 132 Beginning Tap Dance. Beginning tap dance techniques and routines are performed. This course will introduce students to basic through advanced tap dance movements. Units on the background and history of tap will be included. Students will be introduced to the LifeForms choreography software. All skill levels will be accommodated. This class also is available as PE 132.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

THA 134 Beginning Classical Ballet. This course is an introduction to basic classical ballet. Participation will include stretching, conditioning, ballet barre, centre work and combinations. Topics will include dance injury prevention, the theory of movement and becoming familiar with significant people, events and issues in the performing arts. Students will be introduced to the LifeForms choreography software. There is no mandatory public performance. This class also is available as PE 134.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

THA 205 Comedy Writing for the Theatre. This is basic course to help students develop the skills and knowledge to write comedy. The course will include segments on character and sketch development and playwriting. The students will write a one-act play.
Prerequisite: None
3 credits = 3 lecture

THA 206 Improvisation and Role Play. This course explores role playing and imagination response through intensive planned and spontaneous theatre games, exercises and performance scenes. Utilizing elements of play, students will discover its ability to shape creative expression, free imagination, enhance group interaction and stimulate the flow of fresh ideas in any circumstance. The course is open to theatre majors and non-majors alike.
Prerequisite: None
3 credits = 3 lecture

THA 207 Intermediate Acting. This course continues and builds upon the material learned in THA 106, and is intended for students who are considering completing an acting or performance major at a four-year college or university, or pursuing a career in acting onstage or in films. Exercise, games, discussion and scene work will be more challenging than in the previous course, and will include scenes from historic eras in world theatre. Students will select and prepare an audition monologue.
Prerequisite: THA 106 or permission of instructor
3 credits = 3 lecture

THA 208 Musical Theatre. This course is a survey of the history, purposes and types of musical stage performances. Practical training for musicals in voice, stage movement and staging techniques will be studied.
Prerequisite: None
3 credits = 3 lecture

THA 231 Advanced Lyrical Jazz Dance. This course is designed for students with some dance background. The two areas of emphasis will be (1) a progressively improved performance level, based on the level of student experience, and (2) an introduction to the skills of basic choreography, including the use of LifeForms software. Dance injury prevention, issues in performing arts and overall conditioning are included. This class also is available as PE 231.
Prerequisites: PE 131/THA 131
1 credit, plus 1 contact hour = 2 laboratory

THA 232 Advanced Tap Dance. Continuation of tap dance techniques and routines are performed. This course will continue concepts of basic and advanced tap dance movements. Units on the background history of tap will be included. Students will continue with choreography computer software. All skill levels will be accommodated. This course is also available as PE 232.
Prerequisite: THA 132/PE 132
1 credit, plus 1 contact hour = 2 laboratory

THA 234 Advanced Classical Ballet. This course is intended to enhance and challenge ballet dancers who are beyond the beginner level. Classes will include barre and centre work, stretching and conditioning, combinations (enchainement) and

dance. Public performance is an option, if the opportunity is presented. This course is also available as PE 234.
Prerequisite: PE 134 or THA 134 or permission of instructor
1 credit, plus 1 contact hour = 2 laboratory

TRANSPORTATION AND LOGISTICS
Engineering Technology Department (810) 989-5754

ITL 150 Transportation and Logistics Internship. This course consists of work experience in industry relating to transportation & logistics (80 hours of work experience related to the objectives equals 1 credit). This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training agreement developed which is agreed upon by the student, employer and the college. Special requirements may be necessary.
Prerequisite: Permission of instructor and completion of first semester of Transportation & Logistics certificate program (GPA >2.5 in major area of study)
1 credit (80 hours of work experience) = 1 lecture/laboratory

ITL 190 Introduction to Transportation and Logistics. This course provides a clear overview of the key concepts of business logistics. Topics include shipping and receiving, warehouse management and inventory and overall traffic administration functions. Information provided will include: the legal and regulatory environment, costing and pricing, major transportation options, managing transportation partnerships and the use of information and technology in the logistics sector. Current issues and future technology of the industry are also included.
Prerequisite: None
3 credits = 3 lecture

ITL 191 Domestic and International Freight Operations. This course examines current issues and best practices used in domestic and international freight operations. Course topics include transportation providers, regulation and policy, carrier strategies, costing and pricing, information systems, transportation management and the negotiation and bidding process.
Prerequisite: ITL 190
3 credits = 3 lecture

ITL 192 Import Procedures and Documents. This course provides an in-depth view of what procedures should be followed, and what documentation is utilized in importing. The role that various documents play in import transactions and how correct strategies can reduce or eliminate problems will be emphasized. Various documents will be examined as well as the forms needed for import.
Prerequisite: ITL 190
3 credits = 3 lecture

ITL 193 Transportation and Border Security. This course provides an in-depth view of modern border and transportation security. Specific topics include security for ships, aircraft, trucks, pipelines and cargo shipped by any method. The course focuses on the technology needed for security, and also discussion of legal, economic, political and cultural aspects of the problem.
Prerequisite: ITL 190
3 credits = 3 lecture

ITL 194 Supply Chain Management. This course provides a study of the management of information, product, service and knowledge flow in the integrated supply chain. Techniques are learned to obtain quality suppliers and methods used to evaluate problems in the supply chain. Sourcing strategies, cost analysis and control, planning and scheduling and operations management case studies will be presented and discussed in this course. Topics include inventory management, transportation management, warehouse management and project management.
Prerequisite: ITL 190
3 credits = 3 lecture

WELDING AND CUTTING TECHNOLOGY
Engineering Technology Department (810) 989-5754

WELD 110A Basic Oxyacetylene Welding, Cutting and Brazing. This introductory course provides students with a technical understanding of oxyacetylene welding, flame cutting, brazing fundamentals and safety. It also provides training to develop the manual skills necessary to produce quality welds on mild steel in flat position.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

WELD 110B Basic Shielded Metal Arc Weld I. This introductory course provides students with a technical understanding of arc welding fundamentals, welding safety, arc welding machines and electrode classification and selection. It also provides training to develop the manual skill necessary to make quality shielded metal-arc welds in flat position on mild steel.
Prerequisite: None
1 credit, plus 1 contact hour = 2 laboratory

WELD 110C Gas Metal Arc & Gas Tungsten Arc Welding. This introductory course provides students with a technical understanding of Gas Metal Arc Welding (M.I.G.) and Gas Tungsten Arc Welding (T.I.G.) of low carbon steel, stainless steel and aluminum in flat, horizontal and vertical positions.
Prerequisite: None
1 credit plus 1 contact hour = 2 laboratory

WELD 114 Print Reading and Fabrication Design. This course will give students an understanding of the prints used in the welding and fabrication industry. Welding symbols, various drafting lines, metric system, basic shop math, orthographic and pictorial views will be used. Set-up tools, including tape measures, angle blocks, fitting shims, turn buckles, wedges and various clamping methods will be demonstrated. Students also will design an individual project, draw a detailed print and deliver a presentation to the class.
Prerequisite: None
3 credit = 3 lecture

WELD 150 Welding and Cutting. Students in this course will complete twelve weeks or more work experience in industry as a course requirement, in an intensive but varied experience in all phases of the welding program of study. This on-the-job experience will be developed by the employer in conjunction with a coordinator designated by the college. There will be a written training program developed which is agreed upon by the student, employer and the college.
Prerequisite: Permission of instructor
1 to 6 credits (80 hours of work experience = 1 credit) = 1 to 6 lecture/laboratory

WELD 210 Shielded Metal Arc Welding, Advanced. This course is a continuation of WELD 110B. Students will focus on Butt joints using E6010 for the root and E 7018 for fill and cover passes. Horizontal, vertical and overhead positions will be practiced extensively. Upon completion of this course, students will be required to take the A.W.S. Certification Test.
Pre/Co-requisites: WELD 110A and WELD 110B and WELD 110C
3 credits, plus 3 contact hours = 6 laboratory

WELD 211 M.I.G. Welding, Advanced. This course focuses on the different aspects of the M.I.G. (Metal Inert Gas) welding process. Mild steel, aluminum, solid wire and flux cored wire will all be used. Upon completion of this course, students will be required to take the A.W.S. Certification Test.
Pre/Co-requisites: WELD 110A and WELD 110B and WELD 110C
2 credit, plus 2 contact hours = 4 laboratory

WELD 212 M.I.G. Pipe Welding. This course focuses on M.I.G. (Metal Inert Gas) welding of 4" diameter and larger pipe in the 2-G and 5-G positions. Students will concentrate their effort on taking an A.W.S. Certification Test on 6-1/2" diameter pipe in the 2-G or 5-G position.
Prerequisite: WELD 211
4 credits, plus 2 contact hours = 6 laboratory

WELD 213 M.I.G. Pipe Welding, Advanced. This course focuses on M.I.G. (Metal Inert Gas) welding of 4" diameter and larger pipe in the 6-G position. Students will concentrate their efforts on taking an A.W.S. Certification Test on 6-1/2" diameter pipe in the 6-G position.
Prerequisite: WELD 212
3 credits, plus 3 contact hours = 6 laboratory

WELD 214 T.I.G. Welding, Advanced. This course focuses on advanced techniques of the T.I.G. (Tungsten Inert Gas) welding process. Students will be trained on multiple joints in all positions. Mild steel, stainless steel and aluminum will be used. At the end of this course, students will take an A.W.S. Certification Test using the T.I.G. process.
Prerequisite: WELD 110A and WELD 110B and WELD 110C
2 credits, plus 2 contact hours = 4 laboratory

WELD 215 T.I.G. Pipe Welding. This course focuses on T.I.G. (Tungsten Inert Gas) welding of 3" diameter and larger pipe in the 2-G and 5-G positions. Students will concentrate their efforts on taking an A.W.S. Certification Test on 3" diameter pipe in the 2-G or 5-G positions.
Prerequisite: WELD 214
4 credits, plus 2 contact hours = 6 laboratory

WELD 216 T.I.G. Pipe Welding, Advanced. This course focuses on T.I.G. (Tungsten Inert Gas) welding of 3" diameter pipe in the 6-G. Students will concentrate their efforts taking an A.W.S. Certification Test on 3" diameter pipe in the 6-G position.
Prerequisite: WELD 215
3 credits, plus 3 contact hours = 6 laboratory

WELD 219 Fabrication. This course gives students the skills and knowledge necessary to fabricate an intricate weldment utilizing a detailed print along with the unique tools found in the welding and fabrication industry. Students will fabricate a project to a dimensional tolerance of plus or minus 1/16" and one angular degree.
Prerequisite: WELD 110A and WELD 110B and WELD 110C and WELD 114
3 credits, plus 3 contact hours = 6 laboratory

WELD 220 S.M.A.W. Pipe Welding. This course concentrates on the S.M.A.W. (Shielded Metal Arc Welding) (stick) process. Students will focus on 6-1/2" pipe in the 2-G and 5-G positions. Open root with E6010 and E7018 fill and cover passes will be used. Upon successful completion of the course students will take an A.W.S. Certification Test on 6-1/2" diameter pipe.
Prerequisite: WELD 210
4 credits, plus 2 contact hours = 6 laboratory

WELD 221 S.M.A.W. Pipe Welding, Advanced. This course focuses on S.M.A.W. (Shielded Metal Arc Welding) on 6-1/2" diameter pipe in the 6-G position. Students will concentrate their efforts on taking an A.W.S. certification test on 6-1/2" diameter pipe in the 6-G position.
Prerequisite: WELD 220
3 credits, plus 3 contact hours = 6 laboratory

WELD 222 Flux Cored Arc Welding. This course focuses on F.C.A.W. (Flux Cored Arc Welding) on 3/8 mild steel plate in all positions. Students will concentrate their efforts on taking AWS (American Welding Society) certification test in the 3G (vertical) and 4G (overhead) positions on 3/8 mild steel plate.
Prerequisite: WELD 110A and WELD 110B and WELD 110C
3 credits, plus 3 contact hours = 6 laboratory

WELD 223 Flux Cored Arc Welding: Pipe. This course focuses on F.C.A.W. (Flux Cored Arc Welding) on 6-1/2" schedule 80 pipe in the 2G and 5G positions. Students will concentrate their efforts on taking an AWS (American Welding Society) certification test in the 5G position on 6-1/2" in schedule 80 pipe.
Prerequisite: WELD 222
4 credits, plus 2 contact hours = 6 laboratory

WELD 224 Flux Cored Arc Welding: Pipe, Advanced. This course focuses on F.C.A.W. (Flux Cored Arc Welding) on a 6-1/2" schedule 80 pipe in the 6G position. Students will concentrate their efforts on taking an AWS (American Welding Society) certification test in the 6G position on 6-1/2" diameter, schedule 80 pipe.
Prerequisite: WELD 223
4 credits, plus 2 contact hours = 6 laboratory

CURRENTLY INACTIVE COURSES

These courses may be offered in the future. If students are interested in having a currently inactive class listed in the fall, winter, spring or summer schedule, contact the department chair or an instructor in the appropriate area.

Course Number	Course Name
ACCT 231	Intermediate Accounting I
ACCT 232	Intermediate Accounting II
ANT 280	Archaeological Anthropology
ART 123	Modern Art, Artists and Society
CM 207A	Broadcast Announcing
CM 207B	Broadcast Writing
CM 207C	Television for Non-majors
CIS 110A	Introduction to Computers – The Internet
CIS 280	Systems Analysis and Design
CJ 203	Criminal Evidence and Procedure
ELT 110	Electronics Circuit Simulation
ELT 230	Circuit Design and Analysis
ENG 204	Introduction to Language
ENG 250	Science Fiction
EVT 100	Introduction to Environmental Technology
EVT 110	Introduction to Water Treatment
EVT 120	Introduction to Wastewater Treatment
EVT 130	Water and Wastewater Convergence Systems
EVT 200	Hazardous Materials: Health and Safety (OSHA 40)
EVT 210	Environmental Sampling and Analysis
EVT 230	Environmental Compliance
GEO 290	Foreign Geography & Culture
GEO 297	European Geography
HIS 180	The United States Since 1945
HIS 298	Studies in U.S. History
HS 101	Introduction to Human Services
HS 104	Delinquency Prevention and Control
HS 190	Introduction to Empathy and Counseling Techniques
HS 200A	Mental Illness & Service Provider Skills
HS 200B	Mental Illness & Service Provider Skills Practicum
HS 201A	Developmental Disabilities and Special Education
HS 201B	Developmental Disabilities and Special Education Practicum
HS 202A, B, C, D	Human Services Practicum
HS 203A, B, C, D	Youth Services Practicum
HS 210	Dynamics of Substance Abuse
MTH 103	Geometry
MTH 113H	Honors Precalculus Mathematics
MUS 172	Jazz Ensemble
MUS 190	Ensemble Activity
PE 102	Beginning Swimming
PE 103	Intermediate Swimming
PE 104	Advanced Swimming
PE 105	Lifesaving
PE 106	Water Safety Instruction
PE 108	Scuba Diving

Course Number	Course Name
PE 111	Basketball
PE 112	Softball
PE 113	Volleyball
PE 116	Racquetball
PE 117	Weight Management through Slim Living
PE 121	Archery
PE 122	Badminton
PE 125	Gymnastics
PE 126	Beginning Figure Skating
PE 127	Tennis
PE 130	Folk, Square and Social Dance
PE 135	Advanced Instruction in Modern Dance
PE 140	Elementary Education Supervision
PE 142	History of Physical Education
PE 151	Rules and Officiating
PE 160	Dance Production
PE 161	Video Aerobics
PS 135	The Law and You
PS 160	Russia and the Former Soviet National Republics
PS 170	20th Century Africa
PS 233	Modern Western European Democracies
PS 297	Foreign Studies/Mexican Experience
PSY 150	Applied Psychology
PSY 250	Educational Psychology
RD 051A, B	Introduction to College Reading II
SP 250	Spanish Language and Culture
SP 251	Reading Conversational Spanish
SP 252	Applied Conversational Spanish
SPC 205	Discussion and Conference
SPC 206	Intercollegiate Debate and Forensics

St. Clair County
Community College

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B.A. Madonna University
M.A. Saginaw Valley State University
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M.S. Oakland University
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B.G.S. University of Michigan
M.B.A. Baker College
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Thomas Donovan, Director of Physical Plant
Katherine Dumanois, Senior Accountant
B.A. University of Michigan−Flint

Douglas Duncan, Chief of Campus Patrol and Emergency Planning
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M. Liberal Studies, Eastern Michigan University
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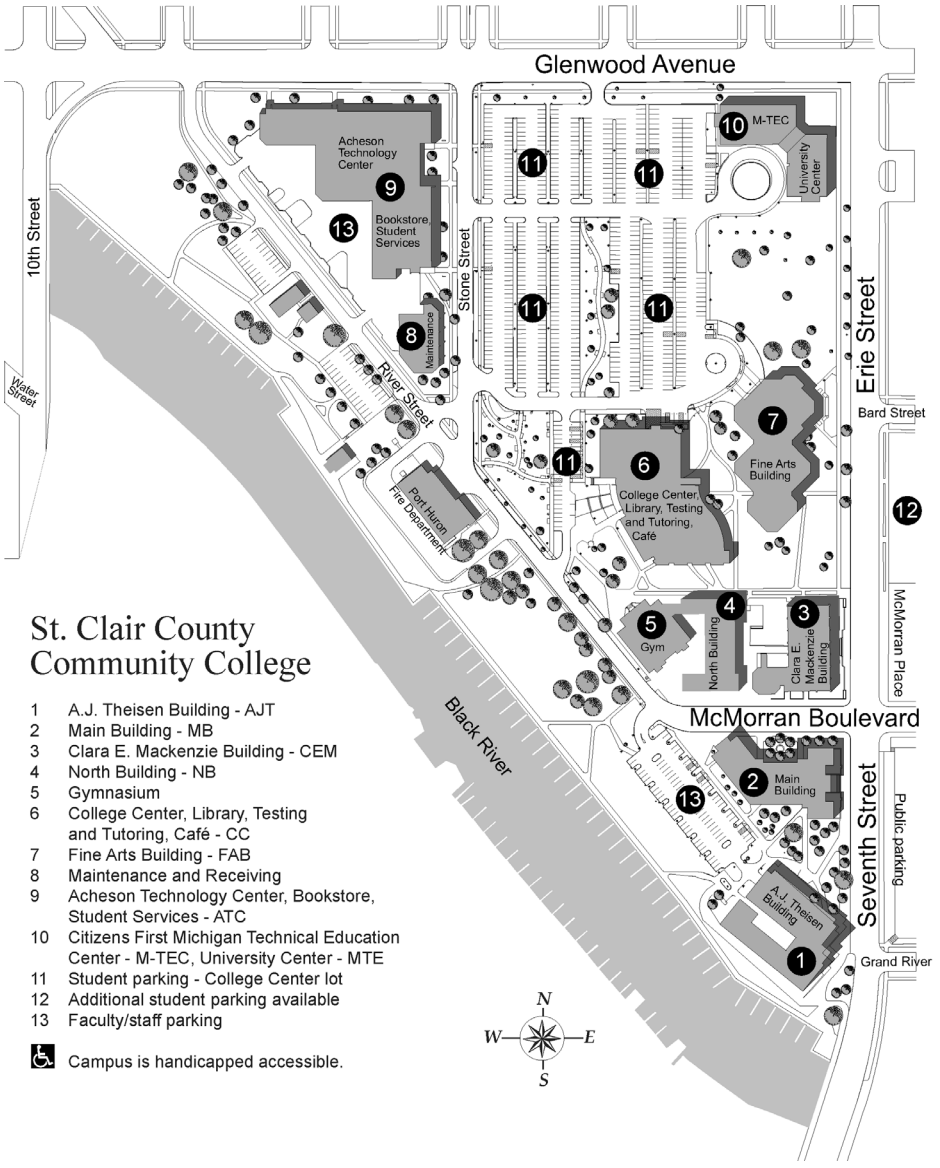

St. Clair County Community College

1 A.J. Theisen Building - AJT
2 Main Building - MB
3 Clara E. Mackenzie Building - CEM
4 North Building - NB
5 Gymnasium
6 College Center, Library, Testing and Tutoring, Café - CC
7 Fine Arts Building - FAB
8 Maintenance and Receiving
9 Acheson Technology Center, Bookstore, Student Services - ATC
10 Citizens First Michigan Technical Education Center - M-TEC, University Center - MTE
11 Student parking - College Center lot
12 Additional student parking available
13 Faculty/staff parking

Campus is handicapped accessible.

Cover students (left to right)
Front cover: Belinda Mestancik, Port Huron; Lucas Heldt, Memphis; Donna Dobson, Port Huron
Back cover: Kerry Lofton, Melvin; Joi Price, Port Huron; Craig Schiffelbine, Yale

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