Academic Programs

All academic programs offered by Monroe Community College have been approved by the State University of New York and registered with:

New York State Board of Regents
New York State Department of Education
Room 110EB
Albany, NY 12234
(518) 474-5889
www.regents.nysed.gov

The State University of New York has authorized the College to award degrees of Associate in Arts, Associate in Science, Associate in Applied Science, and specified certificates. The College itself is fully accredited by:

Middle States Commission on Higher Education
3624 Market Street
Philadelphia, PA 19104-2680
(215) 662-5606

A.A. & A.S. degrees are designed for students who plan to transfer to a baccalaureate degree program.

A.A.S. degree prepares the student for immediate entry into a specific technical or paraprofessional career field.

A.A. degree requires completion of 45 credits in Liberal Arts and Sciences. Evidence of transferability into compatible programs at two baccalaureate-granting institutions.

A.S. degree requires completion of 30 credits in Liberal Arts and Sciences. Evidence of transferability into compatible programs at two baccalaureate-granting institutions.

A.A.S. degree requires completion of 20 credits in Liberal Arts and Sciences. Validated by documentation from an Advisory Group review team.

Certificate a credential issued by an institution in recognition of the completion of a curriculum other than one leading to a degree; offered for a particular purpose to meet a local or immediate need. Every credit bearing course is applicable to a registered degree program at the College.

Transfer Programs

These two year programs of study leading to an A.A. or A.S. Degree provide an opportunity to complete the first two years of study toward a baccalaureate degree. The third and fourth years of study would be completed at the four-year college or university a student transfers to after completion of the MCC program. Because each four-year institution has its own requirements, any student planning to transfer is advised to select courses in consultation with a transfer counselor, department chairperson or faculty member.

These programs are designed for students who plan to transfer to a baccalaureate degree program. If you are interested in pursuing a course of study not listed, contact an admissions counselor to plan a program that meets your educational goals.

<table>
<thead>
<tr>
<th>Program</th>
<th>HEGIS CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addictions Counseling - Associate in Science (A.S.) Degree</td>
<td>5506</td>
</tr>
<tr>
<td>African-American Studies (A.S.) Degree</td>
<td>5004</td>
</tr>
<tr>
<td>Advertising: Commercial Art - Associate in Science (A.S.) Degree</td>
<td>5012</td>
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<tr>
<td>Biology (A.S.) Degree</td>
<td>5604</td>
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<tr>
<td>Business:</td>
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<tr>
<td>Business Administration - Associate in Science (A.S.) Degree</td>
<td>5004</td>
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<tr>
<td>International Business - Associate in Science (A.S.) Degree</td>
<td>5099</td>
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<tr>
<td>Chemistry (A.S.) Degree</td>
<td>5619</td>
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<tr>
<td>Cinema and Screen Studies - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Communication and Media Studies - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Computer Information Systems - Associate in Science (A.S.) Degree</td>
<td>5101</td>
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<tr>
<td>Computer Science - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Criminal Justice - Associate in Science (A.S.) Degree</td>
<td>5505</td>
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<tr>
<td>Engineering Science - Associate in Science (A.S.) Degree</td>
<td>5609</td>
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<tr>
<td>Fine Arts - Associate in Science (A.S.) Degree</td>
<td>5610</td>
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<tr>
<td>Gender and Sexuality Studies (A.S.) Degree</td>
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<tr>
<td>Global Studies (A.S.) Degree</td>
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<tr>
<td>Health Studies - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Human Services - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Information Technology - Associate in Science (A.S.) Degree</td>
<td>5101</td>
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<tr>
<td>Liberal Arts and Sciences:</td>
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<tr>
<td>Adolescence Education (Teacher Education Transfer) (A.A.) Degree</td>
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<tr>
<td>Liberal Arts and Sciences: Childhood Education (Teacher Education Transfer) (A.A.) Degree</td>
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<tr>
<td>Liberal Arts and Sciences: Early Childhood Education (Teacher Education Transfer) (A.A.) Degree</td>
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<tr>
<td>Liberal Arts and Sciences: General Studies - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Liberal Arts and Sciences: Humanities - Associate in Arts (A.A.) Degree</td>
<td>5649</td>
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<tr>
<td>Liberal Arts and Sciences: Humanities and Social Science - Associate in Arts (A.A.) Degree</td>
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<tr>
<td>Liberal Arts and Sciences: Science - Associate in Science (A.S.) Degree</td>
<td>5649</td>
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<tr>
<td>Mathematics - Associate in Science (A.S.) Degree</td>
<td>5617</td>
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<tr>
<td>Music Performance - Associate in Science (A.S.) Degree</td>
<td>5610</td>
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<tr>
<td>Physical Education and Exercise Science - Associate in Science (A.S.) Degree</td>
<td>5299.30</td>
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<tr>
<td>Public Relations - Associate in Science (A.S.) Degree</td>
<td>5004</td>
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<tr>
<td>Sport Management - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Sustainability Studies - Associate in Science (A.S.) Degree</td>
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<tr>
<td>Theatre Arts - Associate in Science (A.S.) Degree</td>
<td>5610</td>
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<tr>
<td>Urban Studies (A.S.) Degree</td>
<td>5610</td>
</tr>
</tbody>
</table>

www.monroecc.edu/go/academicprograms
### Certificate Programs
Certificate programs are offered to students who desire a rather high degree of specialization in a short program of instruction. Programs vary in length from 20 to 55 college credits. All courses may be applied toward a degree should certificate students later decide to complete the associate degree requirements within their field of study. Those interested in such programs should contact the Office of Admissions, the academic field department chairperson, or a college counselor in the counseling center.

<table>
<thead>
<tr>
<th>Program</th>
<th>HEGIS Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>5002</td>
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<tr>
<td>Addictions Counseling</td>
<td>5506</td>
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<tr>
<td>Advanced Studies (Honors Studies)</td>
<td>5649</td>
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<tr>
<td>Agriculture and Food Studies</td>
<td>5402</td>
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<tr>
<td>Automotive Technology</td>
<td>5306</td>
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<tr>
<td>Computer Aided Design and Drafting</td>
<td>5303</td>
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<td>Culinary Arts</td>
<td>5404</td>
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<tr>
<td>Cybersecurity</td>
<td>5199</td>
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<tr>
<td>Dental Assisting*</td>
<td>5202</td>
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<tr>
<td>Dental Assisting Rapid Track</td>
<td>5312</td>
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<tr>
<td>Direct Disability Support Services</td>
<td>5506</td>
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<tr>
<td>Early Care</td>
<td>5503</td>
</tr>
<tr>
<td>Electronics Technology</td>
<td>5310</td>
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<tr>
<td>Emergency Medical Services</td>
<td>5299</td>
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<tr>
<td>Food Management</td>
<td>5010</td>
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<tr>
<td>Golf Management</td>
<td>5010</td>
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<tr>
<td>Heating, Ventilating, and Air Conditioning</td>
<td>5317</td>
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<tr>
<td>Homeland Security</td>
<td>5508</td>
</tr>
<tr>
<td>Hotel Management</td>
<td>5010</td>
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<tr>
<td>Human Services</td>
<td>5501</td>
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<tr>
<td>Law Enforcement</td>
<td>5505</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5617</td>
</tr>
<tr>
<td>Office Technology: Medical Office Assistant</td>
<td>5005</td>
</tr>
<tr>
<td>Optical Systems Technology</td>
<td>5212</td>
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<tr>
<td>Paralegal Studies</td>
<td>5099</td>
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<tr>
<td>Paramedic Certificate</td>
<td>5299</td>
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<tr>
<td>Precision Machining: Optical Fabrication</td>
<td>5212</td>
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<tr>
<td>Precision Tooling</td>
<td>5312</td>
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<tr>
<td>Small Business Management</td>
<td>5004</td>
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<tr>
<td>Solar Thermal Technology</td>
<td>5317</td>
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<tr>
<td>Sustainability</td>
<td>5649</td>
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<tr>
<td>Teaching Assistant: Adolescence</td>
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<tr>
<td>Teaching Assistant: Early Childhood/Childhood</td>
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<td>Teaching Assistant: Technology</td>
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<tr>
<td>Travel and Tourism</td>
<td>5011</td>
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### Accredited Programs
The following programs are accredited by the specific accreditation agencies:

<table>
<thead>
<tr>
<th>Program</th>
<th>Agency</th>
<th>SED Code</th>
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</thead>
<tbody>
<tr>
<td>Dental Hygiene, A.A.S.*</td>
<td>Commission on Dental Accreditation of the American Dental Association</td>
<td>01229</td>
</tr>
<tr>
<td>Dental Assisting, Certificate*</td>
<td>Commission on Dental Accreditation of the American Dental Association</td>
<td>21311</td>
</tr>
<tr>
<td>Electrical Engineering Technology - Electronics A.A.S.*</td>
<td>Accreditation Board for Engineering and Technology - Engineering Technology</td>
<td>77436</td>
</tr>
<tr>
<td>Health Information Technology/Medical Records A.A.S.*</td>
<td>Commission on Accreditation of Allied Health Informatics and Informational Management Education</td>
<td>01235</td>
</tr>
<tr>
<td>Clinical Laboratory Technician/Medical Laboratory Technician A.A.S.</td>
<td>National Accrediting Agency for Clinical Laboratory Sciences</td>
<td>34458</td>
</tr>
<tr>
<td>Nursing A.A.S.*</td>
<td>Accreditation Commission for Education in Nursing</td>
<td>01233</td>
</tr>
<tr>
<td>Paramedic A.A.S.*</td>
<td>Commission on Accreditation of Allied Health</td>
<td>21706</td>
</tr>
<tr>
<td>Radiologic Technology A.A.S.*</td>
<td>Joint Review Committee on Education in Radiologic Technology</td>
<td>01232</td>
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</tbody>
</table>

**Accreditation**
Monroe Community College is accredited by the Middle States Commission on Higher Education.
ACCTING: GENERAL

Accounting: General
A.A.S. Degree

CIP Code:
52.0302
NYSED Code (BRI):
A001
NYSED Code (DCC):
27626

MCC Program Code:

Description
This program is designed for the student seeking a position as an accounting technician. The curriculum provides a solid background in general accounting procedures, automated accounting systems and spreadsheet programs, and general knowledge of business law and management. Graduates will be prepared to keep records of daily financial transactions, create financial statements, and prepare other related reports.

This program is not designed as a transfer program. Students who plan to transfer to a four-year college to earn their Bachelor’s degree should discuss their plans with an advisor as early as possible to identify the appropriate program.

(Housed in the Business Administration & Economics Department)

Program Learning Outcomes
1. Complete all steps of the accounting cycle.
2. Create information such as budgets or variance analyses in support of the planning and control functions.
3. Apply appropriate principles to stakeholder issues such as valuation or ownership for various business assets and equities.
4. Apply appropriate quantitative reasoning skills in performing job duties such as ratio analysis or cost-volume-profit computations.
5. Prepare basic tax forms such as payroll taxes or income tax.
6. Use computer software such as spreadsheet or general ledger as an aid in performing business and accounting functions.
7. Apply economic principles to costing and pricing decisions.
8. Describe the relationship between managers and employees and their respective obligations to each other.
9. Utilize effective communication skills in a variety of situations.

Requirements for Program Entrance
Elementary Algebra with Geometry (or Math 098 or Math 130 at MCC) with a C or higher.

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR
ENG 200 Advanced Composition
MTH 130 Modern Business Mathematics (recommended) OR
MTH 104 Intermediate Algebra or higher (NOT MTH 150 Survey of Mathematics)* ... 3
BUS 104 Introduction to Business................................................................. 3
ACC 101 Principles of Accounting I OR
ACC 110 Fundamentals of Accounting I AND
ACC 111 Fundamentals of Accounting II....................................................... 4
OFT 121 Introduction to Keyboarding***...................................................... 1
PHYSICAL/HEALTH EDUCATION.................................................................. 1
TOTAL 15

SECOND SEMESTER: 16-17 Credit Hours

ECO 101 Introduction to Economics OR
ECO 111 Principles of Microeconomics....................................................... 3
SPC 140 Introduction to Speech Communication OR
SPC 141 Interpersonal Speech Communication OR
SPC 142 Public Speaking OR
SPC 143 Small Group Communication........................................................................ 3
ACC 202 Payroll Accounting........................................................................... 2
ACC 102 Principles of Accounting II................................................................... 4
BUS 220 Business Applications OR
CRC 125 Computer Applications Software** ................................................ 3-4
PHYSICAL/HEALTH EDUCATION.................................................................. 1
TOTAL 16-17

THIRD SEMESTER: 16 Credit Hours

ECO 103 Personal Money Management....................................................... 3
NATURAL SCIENCE ELECTIVE....................................................................... 3
ACC 201 Accounting Applications................................................................... 3
ACC 210 Intermediate Accounting I.............................................................. 4
BUS 200 Legal Environment of Business....................................................... 3
TOTAL 16

FOURTH SEMESTER: 16 Credit Hours

ENG 250 Professional Communication......................................................... 3
ACC 204 Tax Procedures................................................................................. 3
ACC 220 Cost Accounting................................................................................. 3
ACC 230 Accounting Systems and Applications............................................. 3
BUS 275 Business Cooperative Education.................................................... 4
TOTAL 16

TOTAL CREDITS 63-64

* Students with strong math skills should consult with their advisor to select the appropriate math course.
** CRC 125 or the combination of CRC 113, 115, 116, 117
*** May be waived

ADDICTIONS COUNSELING

A.A.S. Degree

CIP Code:
51.1501
NYSED Code (BRI):
32113
NYSED Code (DCC):
32114

MCC Program Code:

Description
This program is designed to prepare students for a future in addictions counseling after completing the baccalaureate in Social Work or another relevant field.

Addictions counseling is a challenging and rewarding field for which entry-level employees are often not well prepared. In New York State, oversight of treatment for substance use disorder is by the New York Office of Alcohol & Substance Abuse Services (OASAS). The credential for drug and alcohol counselors is the Credentialed Alcohol & Substance Abuse Counselor, commonly known as the CASAC. Completion of the full CASAC involves three components: education, an exam, and experience working in the field. This program when successfully completed provides the education component, following which the student is eligible to apply for the designation of Credentialed Alcohol & Substance Abuse Counselor-in-Training (CASAC-T). The program is designed around the 12 Core Functions designated as essential by the New York State Office of Alcohol & Substance Abuse Services. These core functions are addressed in seven substance abuse treatment (ACD) counseling classes. Six of these are 3-credit courses; the seventh is a 6-credit course that includes a 300 hour internship.

(Housed in the Human Services Department)

Program Learning Outcomes
1. Initial screening of potential clients as to their need for further evaluation and diagnosis.
2. Intake: collecting of necessary personal information, explanation of confidentiality laws, obtaining of appropriate release of information signatures.
3. Orientation: clarify rights and responsibilities of both client and treatment facility, facility rules, tour appropriate areas, explain treatment process, help client to understand what is expected, and what s/he may expect.
4. Assessment, Evaluation and Intervention: Take an appropriate psychosocial history; develop a diagnosis based on current DSM criteria, help client to understand the damage that addiction may be doing to physical, family and career life.
5. Referral: Be able to appropriately match client diagnosis and symptoms to treatment facility and program level. Be familiar with other area programs and

www.monroecc.edu/go/academicprograms
facilities that client may need beyond substance abuse treatment and be able to make appropriate referrals.

6. Treatment Planning: Be able to: develop client treatment plans, including long-term and short-term goals and the areas of life specified by OASAS; involve client in the development of the treatment plan; keep treatment plans updated.

7. Counseling: Be able to: select the appropriate counseling model(s) for a situation; use one-on-one and group counseling skills, including empowering clients, focusing on strengths, and keeping the focus on the client’s agenda, not the counselor’s.

8. Crisis Intervention: recognize and appropriately respond to signs of relapse, suicidality, depression. Be able to appropriately call on others for assistance when the situation is beyond his/her abilities to handle

9. Patient Education: Counselor will be able to: help client to understand the processes of addiction, withdrawal, relapse, and recovery; be able to convey this information in terms understood by clients and in one-on-one, in group or in front-of-the-room environments.

10. Case Management: Be able to understand, and where appropriate assist client with, processes in which the client may be involved in the areas of social services, legal, health care, and mental health care.

11. Reporting and Record Keeping: Be able to keep succinct but complete and coherent records regarding all client interactions for the well-being of both client and agency. Be capable of objective reporting and of knowing what should be included.

12. Consultation with Other Professionals: Be able to work in the substance abuse field as a team member. Discern when to call on supervisor or other experienced staff for assistance. Develop a file of others who can be called on as needed, within appropriate confidentiality procedures.

Requirements for Program Entrance

- MTH 080 with a grade of B- or higher, OR MTH 104 with a grade of C or higher, OR
- MCC Level 8 Mathematics Placement.

Distribution Requirements

FIRST SEMESTER: 17 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ACD 140 Alcohol/Chemical Dependency &amp; the Human Service Worker</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 College Composition OR ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>HUM 101 Introduction to Human Services</td>
<td>4</td>
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<tr>
<td>HUM 111 Field Work in Human Services I</td>
<td>2</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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Total 17

SECOND SEMESTER: 16 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ACD 142 Alcohol/Chemical Dependency &amp; the Family</td>
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<tr>
<td>ACD 143 Alcohol/Chemical Dependency - Independent Counseling Skills</td>
<td>3</td>
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<tr>
<td>ACD 144 Alcohol/Chemical Dependency - Group Counseling Skills</td>
<td>3</td>
</tr>
<tr>
<td>PSY 101 Introductory Psychology</td>
<td>3</td>
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<tr>
<td>BIO 133 Human Biology</td>
<td>3</td>
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<tr>
<td>BIO 132 Laboratory to Accompany Human Biology</td>
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Total 16

THIRD SEMESTER: 15 Credit Hours

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<th>Course</th>
<th>Credit Hours</th>
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<tr>
<td>SUNY GENERAL EDUCATION HUMANITIES ELECTIVE</td>
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<tr>
<td>MTH 160 Statistics I or higher</td>
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</tr>
<tr>
<td>ACD 241 Alcohol/Chemical Dependency - Treatment Modalities</td>
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<tr>
<td>SUNY GENERAL EDUCATION, OTHER WORLD CIVILIZATIONS, OR WESTERN</td>
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<tr>
<td>CIVILIZATIONS ELECTIVE</td>
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<tr>
<td>SUNY GENERAL EDUCATION AMERICAN HISTORY ELECTIVE**</td>
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Total 15

FOURTH SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ACD 245 Alcohol/Chemical Dependency - Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>ACD 246 Alcohol/Chemical Dependency - Internship &amp; Seminar</td>
<td>6</td>
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<tr>
<td>SUNY ARTS OR FOREIGN LANGUAGE ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td>SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE</td>
<td>3</td>
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</tbody>
</table>

Total 15

TOTAL CREDITS 63

* ELECTIVES: Students should seek advisement regarding elective depending on their transfer plans.

Students planning to transfer to a SUNY college or university must also fulfill the SUNY General Education Requirement.

** If below 85 on U.S. History Regents Exam, choose from: HIS 111, HIS 112.

If 85 or above on U.S. History Regents Exam, choose from: HIS 103, HIS 110, HIS 111, HIS 112, HIS 206, HIS 211, HIS 240, HSM 102, PDS 100.

ADDICTIONS COUNSELING

CERTIFICATE PROGRAM

CIP Code: 34.0104
NYS Code (BRI): NYSED Code (DCC): 34167 34168

DEPARTMENT

Description

This certificate program is mainly intended for students who already have a Bachelor’s or Master’s degree in an associated field, and is designed to qualify graduates to apply for the CASAC-T, the Certified Alcohol and Substance Abuse Counselor-in-Training designation. This is the first step toward obtaining the CASAC itself, which in New York State is the appropriate qualification for a career in the substance abuse counseling field. Included in this certificate is course work covering all core functions of an addictions counselor as specified by the New York Office of Alcohol & Substance Abuse Services (OASAS). Also included is a 300 hour internship in a Rochester area addiction-related agency. (Housed in the Human Services Department)

Program Learning Outcomes

1. Initial screening of potential clients as to their need for further evaluation and diagnosis.

2. Intake: collecting of necessary personal information, explanation of confidentiality laws, obtaining of appropriate release of information signatures.

3. Orientation: clarify rights and responsibilities of both client and treatment facility, facility rules, tour appropriate areas, explain treatment process, help client to understand what is expected, and what s/he may expect.

4. Assessment, Evaluation and Intervention: Take an appropriate psychosocial history, develop a diagnosis based on current DSM criteria, help client to understand the damage that addiction may be doing to physical, family and career life.

5. Referral: Be able to appropriately match client diagnosis and symptoms to treatment facility and program level. Be familiar with other area programs and facilities that client may need beyond substance abuse treatment and be able to make appropriate referrals.

6. Treatment Planning: Be able to: develop client treatment plans, including long-term and short-term goals and the areas of life specified by OASAS; involve client in the development of the treatment plan; keep treatment plans updated.

7. Counseling: Be able to: select the appropriate counseling model(s) for a situation; use one-on-one and group counseling skills, including empowering clients, focusing on strengths, and keeping the focus on the client’s agenda, not the counselor’s.

8. Crisis Intervention: recognize and appropriately respond to signs of relapse, suicidality, depression. Be able to appropriately call on others for assistance when the situation is beyond his/her abilities to handle
9. Patient Education: Counselor will be able to: help client to understand the processes of addiction, withdrawal, relapse, and recovery; be able to convey this information in terms understood by clients and in one-on-one, in group or in front-of-the-room environments.

10. Case Management: Be able to understand, and where appropriate assist client with, processes in which the client may be involved in the areas of social services, legal, health care, and mental health care.

11. Reporting and Record Keeping: Be able to keep succinct but complete and coherent records regarding all client interactions for the well-being of both client and agency. Be capable of objective reporting and of knowing what should be included.

12. Consultation with Other Professionals: Be able to work in the substance abuse field as a team member. Discern when to call on supervisor or other experienced staff for assistance. Develop a file of others who can be called on as needed, within appropriate confidentiality procedures.

Requirements for Program Entrance

1. Those who wish to add addictions counseling education to pre-existing Bachelor’s or Master’s degrees in a field related to addiction counseling, and (less frequently)

2. Those who have an Associates degree and already worked in the field of addictions counseling for an extended period of time (minimum 4 years) but do not have a pre-existing advanced degree. Such students would be required to have Accuplacer scores--at minimum—at the MCC level 8 Mathematics placement AND placement into English 101 or higher.

Distribution Requirements Credit Hours

<table>
<thead>
<tr>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 101 Introduction to Human Services**</td>
<td>4</td>
</tr>
<tr>
<td>HUM 111 Field Work in Human Services I **</td>
<td>2</td>
</tr>
<tr>
<td>ACD 140 Alcohol/Chemical Dependency &amp; the Human Service Worker</td>
<td>3</td>
</tr>
<tr>
<td>ACD 142 Alcohol/Chemical Dependency &amp; the Family</td>
<td>3</td>
</tr>
<tr>
<td>ACD 143 Alcohol/Chemical Dependency - Independent Counseling Skills</td>
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<tr>
<td>ACD 144 Alcohol/Chemical Dependency - Group Counseling Skills</td>
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<tr>
<td>ACD 241 Alcohol/Chemical Dependency - Treatment Modalities</td>
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<td>ACD 245 Alcohol/Chemical Dependency - Special Topics</td>
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<tr>
<td>ACD 246 Alcohol/Chemical Dependency - Internship &amp; Seminar</td>
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</table>

TOTAL CREDITS 30

** Or 6 credits relevant electives with permission of Department Chair.
5) Analyze and critique illustrated works produced by self peers or professionals
6) Discuss or describe the role of illustration in society or culture in both historic and contemporary contexts
7) Meet the needs of clients by responding to artistic direction
8) Communicate effectively using visual oral or written techniques

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC). Art courses and a portfolio recommended.

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
</table>

**FIRST SEMESTER: 15 Credit Hours**
- ENG 101 College Composition OR ENG 200 Advanced Composition ............................................. 3
- ART 104 Drawing I ...................................................................................................................... 3
- ART 106 Two Dimensional Design ............................................................................................ 3
- MTH 150 Survey of Mathematics (or higher) ........................................................................... 3
- SOCIAL SCIENCE ELECTIVE ..................................................................................................... 3
- LITERATURE ELECTIVE ........................................................................................................... 3

**SECOND SEMESTER: 15 Credit Hours**
- PHO 135 Survey of Digital Photography
- ART 110 Comics and Sequential Art
- AAD 260 Applied Imaging: Raster Graphics+
- AAD 160 Graphic Illustration, Vector Drawing
- AAD 105 Typography
- ART 231 Art Seminar .............................................................................................................. 3
- ART 206 Commercial Illustration II .......................................................................................... 4
- SOCIAL SCIENCE ELECTIVE ..................................................................................................... 3
- PHYSICAL/HEALTH EDUCATION .............................................................................................. 2
- NATURAL SCIENCE ELECTIVE ................................................................................................. 3

**THIRD SEMESTER: 16 Credit Hours**
- ART 118 Perspectives of Art History II* OR ART 119 Perspectives of Art History II* .......... 3
- ART 205 Drawing II .................................................................................................................. 3
- ART 154 Drawing the Human Figure ....................................................................................... 3
- SOCIAL SCIENCE ELECTIVE ..................................................................................................... 3
- LITERATURE ELECTIVE ........................................................................................................... 3

**FOURTH SEMESTER: 15 Credit Hours**
- ART 210 Art Seminar .............................................................................................................. 3
- ART 206 Commercial Illustration II .......................................................................................... 4
- PROGRAM ELECTIVE ................................................................................................................ 3
- PHYSICAL/HEALTH EDUCATION .............................................................................................. 2
- NATURAL SCIENCE ELECTIVE ................................................................................................. 3

**TOTAL CREDITS: 61**

**PROGRAM ELECTIVES:**
- AAD 105 Typography
- AAD 160 Graphic Illustration, Vector Drawing
- AAD 187 Web Design: Graphics
- AAD 256 Motion Graphics
- AAD 260 Applied Imaging: Raster Graphics+
- ART 110 Comics and Sequential Art
- ART 125 Three Dimensional Design
- PHO 135 Survey of Digital Photography

* ART 118 and/or ART 119 fulfill a Humanities or Social Science requirement.
### AIR CONDITIONING TECHNOLOGY: HEATING AND VENTILATION

**A.A.S. DEGREE**

**CIP Code:** 47.0201  
**MCC Program Code:** HV01

### Description

The Air Conditioning Technology Associate Degree prepares students for a career in the HVAC industry in such positions as field service technician, construction field estimator, service representative, systems detailer/designer, and sales representative. Emphasis is placed on the practical application of HVAC systems. This program will also be of benefit to those people who are already employed in the field and desire advancement. Students interested in this program may also be interested in the Solar Thermal Technology Certificate and the Heating, Ventilating, Air Conditioning program. (Housed in the Applied Technologies Department)

### Program Learning Outcomes

1. Demonstrate effective written communication skills for successful employment within the HVAC/R industry.
2. Demonstrate effective oral skills for successful employment within the HVAC/R industry.
3. Demonstrate effective written communication skills for successful employment within the HVAC/R industry.
4. Demonstrate effective oral skills for successful employment within the HVAC/R industry.
5. Demonstrate effective written communication skills for successful employment within the HVAC/R industry.

### Requirements for Program Entrance

- Elementary Algebra with Geometry (or Math 098 at MCC).

### Distribution Requirements

- Credit Hours

<table>
<thead>
<tr>
<th>FIRST SEMESTER: 15 Credit Hours</th>
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<tbody>
<tr>
<td>HVA 101 Basic Refrigeration Theory</td>
<td>3</td>
</tr>
<tr>
<td>HVA 105 Electric and Motor Controls</td>
<td>3</td>
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<tr>
<td>MATHEMATICS ELECTIVE OR</td>
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<tr>
<td>PROGRAM ELECTIVE</td>
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<td>HEATING, VENTILATION, AIR CONDITIONING ELECTIVE***</td>
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<tr>
<td>PHY 100 Preparatory Physics****</td>
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<thead>
<tr>
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<tbody>
<tr>
<td>MTH 140 Technical Mathematics I OR</td>
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<tr>
<td>MTH 164 Introduction to Trigonometry AND MTH 165 College Algebra OR</td>
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<tr>
<td>MTH 175 Precalculus Mathematics with Analytic Geometry OR</td>
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<td>MTH 210 Calculus I or higher</td>
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<tr>
<td>PHY 131 Applied Physics I****</td>
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<tr>
<td>HVA 102 Air Conditioning Theory</td>
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<tr>
<td>HVA 104 Commercial Air Conditioning and Heat Pumps</td>
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<tr>
<td>ENG 101 College Composition OR</td>
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<tr>
<td>ENG 200 Advanced Composition</td>
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</table>

### AGRICULTURE AND FOOD STUDIES

**CERTIFICATE PROGRAM**

**CIP Code:** 01.0401  
**MCC Program Code:** AG02

### Description

The certificate offers students the fundamental knowledge and skills required to perform tasks and responsibilities that support the agricultural and food related industry from farm to fork. Task and responsibilities include food quality assurance, supervision, communication, inventory management, documentation, team skills, and problem solving skills. (Housed in the Biology Department)

### Program Learning Outcomes

1. Identify and describe a variety of educational and career opportunities in the agriculture and food related industry.
2. Identify and explain the presence and impact of food pathogens and contaminants at various points of food production.
3. Explain and apply principles of food safety and sanitation.
4. Describe and assess issues related to food quality assurance.
5. Communicate effectively using terms and knowledge related to agriculture and food production.
6. Solve problems related to agriculture and food production.
7. Work effectively in team building environments.
8. Document work related information involving agriculture and food related processes.

### Requirements for Program Entrance

- High school graduate or high school equivalency diploma.

### Distribution Requirements

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<thead>
<tr>
<th>FIRST SEMESTER: 12 Credit Hours</th>
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<tbody>
<tr>
<td>AGS 150 General Microbiology for Food and Agriculture</td>
<td>4</td>
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<tr>
<td>ENG 101 College Composition OR ENG 200 Advanced Composition</td>
<td>3</td>
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<tr>
<td>CRC 125 Microsoft Office</td>
<td>4</td>
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<td>AGS 101 Introduction to Agriculture</td>
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<table>
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<th>SECOND SEMESTER: 12 Credit Hours</th>
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<tr>
<td>BUS 135 Supervising for the 21st Century</td>
<td>3</td>
</tr>
<tr>
<td>SPC 141 Interpersonal Speech Communication</td>
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<td>SUS 101 Introduction to Sustainability</td>
<td>3</td>
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<tr>
<td>AGS 200 Food and Agriculture Problem Solving - Behavioral Applications</td>
<td>3</td>
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<td><strong>Total 12</strong></td>
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</table>

| TOTAL CREDITS 24 | |
THIRD SEMESTER: 15-17 Credit Hours

HEATING, VENTILATION, AIR CONDITIONING ELECTIVE** .............................................. 3
HEATING, VENTILATION, AIR CONDITIONING ELECTIVE** .............................................. 3-4
HVA 103 Heating Systems .................................................................................................. 3
HVA 108 HVAC Workplace Training .................................................................................... 3
HEATING, VENTILATION, AIR CONDITIONING ELECTIVE OR PROGRAM ELECTIVE** .............................................. 3-4

Total 15-17

FOURTH SEMESTER: 15-16 Credit Hours

ENG 251 Technical Writing.................................................................................................. 3
HEATING, VENTILATION, AIR CONDITIONING ELECTIVE OR PROGRAM ELECTIVE* ..................................................................................................... 3-4
SOCIAL SCIENCE ELECTIVES ............................................................................................ 6
HUMANITIES ELECTIVE ..................................................................................................... 3

Total 15-16

TOTAL CREDITS 61-64

* Program Electives include CE 271, CRC 101, ELT 121, ELT 130, MET 101, STT 101, STT 102, STT 201.
** HVA electives are any course numbered HVA 200 or higher.
*** Students who score below Math Level 8 for math placement must take either MTH 135 or MTH 104 for this elective.
**** PHY 131 and PHY 132 OR PHY 145 and PHY 146 OR PHY 154 and PHY 155 OR PHY 161 and PHY 162
(Note: Prerequisite math courses for each physics sequence)

APPLIED INTEGRATED TECHNOLOGY
A.A.S. DEGREE

CIP Code: 15.0403
MCC Program Code: A101
NYSED Code (BRI): 34321

Description
The Applied Integrated Technology degree offers a unique, interdisciplinary program which prepares students for positions in high technology fields applying the principles of science, engineering, and mathematics to solve technical problems. The comprehensive curriculum addresses the impact of technology on engineering and manufacturing processes, and carefully integrates machining, optical, electrical, mechanical, and manufacturing technologies. Students are provided with extensive hands-on laboratory experience and work on team projects which simulate industry scenarios.

Upon completion of the program students can be placed directly in careers as technicians in product design, system troubleshooting, manufacturing process development, evaluation of components and systems, and translating engineering designs into end-products.

Alternatively, students who may want to transfer to a four year baccalaureate degree may need to complete additional bridge courses.

Students should meet regularly with their program advisor to make certain that their course selections meet the requirements of the program and their career choices.

Recommended preparation: Three years of high school mathematics are required through Sequential Math III (Regents level strongly recommended), and one-half year of physics or physical science is recommended.

(Housed in the Engineering Technologies Department)

Program Learning Outcomes

1) Develop a manufacturing plan to produce a product that includes workflow material requirements and distribution.
2) Use SolidWorks to design components and assemblies from concept to prototype.
3) Use Mastercam to develop machining programs.
4) Determine material specification based upon design intent product usage and manufacturing processes.
5) Design testing procedures to ensure that components meet specifications.
6) Work within a team environment to design develop or evaluate products.
7) Effectively communicate ideas with others using technology such as email and PowerPoint presentations.

Requirements for Program Entrance

Intermediate Algebra with Trigonometry (or Math 104 at MCC). Placement into ENG 101.

Distribution Requirements

FIRST SEMESTER: 16 Credit Hours
ELT 130 System Electricity .................................................................................................. 3
ENR 153 Mechanical Design and Prototyping ......................................................................... 4
MTH 140 Technical Math I* or higher .................................................................................... 3
OPT 131 Optical Elements and Ray Optics ............................................................................ 4
TEK 101 Computer Applications for Technicians ................................................................... 2

Total 16

SECOND SEMESTER: 17 Credit Hours
ELT 232 System Electronics .................................................................................................. 4
ENG 101 College Composition OR ENG 200 Advanced Composition ................................. 3
MET 122 Advanced Modeling with SolidWorks ..................................................................... 3
MTH 141 Technical Mathematics II* ..................................................................................... 3
OPT 135 Measurement and Analysis ....................................................................................... 4

Total 17

THIRD SEMESTER: 16 Credit Hours
ENG 251 Technical Writing .................................................................................................. 3
MFG 201 Computer Aided Manufacturing ............................................................................. 2
OPT 235 Advanced Optical Manufacturing ......................................................................... 4
PHY 131 Applied Physics I OR PHY 145 College Physics I .................................................... 4
HUMANITIES ELECTIVE ..................................................................................................... 3

Total 16

FOURTH SEMESTER: 13-15 Credit Hours
CEL 200 General Internship OR TECHNICAL ELECTIVE** .................................................. 3
ENR 259 Engineering Design Lab .......................................................................................... 1
MET 206 Engineering Materials ............................................................................................ 3
SOCIAL SCIENCE ELECTIVE .............................................................................................. 3
TEK 208 Special Topics in Engineering Technology ............................................................... 1-3
PHYSICAL/HEALTH EDUCATION ....................................................................................... 2

Total 13-15

TOTAL CREDITS 62-64*

* MTH 140 and MTH 141 is a sequence. Students who plan to transfer to a four-year program may wish to substitute the three course sequence MTH 180 (3 cr.), MTH 184 (1 cr.) and MTH 185 (3 cr.). Students not proficient in algebra or trigonometry should take MTH 135 preferably in Summer Session prior to starting Applied Integrated Technology. Students with excellent high school math records may wish to select a more advanced math program following consultation with the Mathematics Department.

** Technical Elective: Any course in CIT, ELT, MET, OPT, or see department chairperson for a substitution waiver.
APPRENTICE TRAINING: AUTOMOTIVE

A.A.S. DEGREE

CIP Code: 47.0904
NYSED Code (BRI): 78834

Description
The Associate Degree Apprentice Training - Automotive program combines on-the-job training with classroom instruction to prepare students for careers as automotive technicians. As the automotive industry advances with sophisticated technology and responds to the needs and demands of consumerism and legislation, employment opportunities will continue to increase for technicians who are more highly skilled than mechanics of the past.

Over five to nine semesters, the student completes an associate degree and works in the industry as an automotive technician. The program is demanding, and students must be willing to commit themselves to both work and study.

Students will take the 22 credit hour General Studies Courses, plus either the Day or Evening program coursework.

(Housed in the Applied Technologies Department)

Program Learning Outcomes
1) Apply mathematical skills as appropriate to fulfill job responsibilities.
2) Demonstrate the use of soft skills necessary for successful employment within the automotive service industry.
3) Communicate effectively in an automotive service setting
4) Demonstrate competency in OSHA safety practices through the successful completion of S/P2’s Pollution and Safety exams.
5) Perform current vehicle engine service to NATEF standards.
6) Perform current vehicle brake service to NATEF standards.
7) Perform current vehicle electrical and electronic systems service to NATEF standards.
8) Perform current vehicle automatic transmission and transaxle service to NATEF standards.
9) Perform current vehicle manual drivetrain and axle systems service to NATEF standards.
10) Perform current vehicle suspension and steering systems service to NATEF standards.
11) Perform current vehicle heating and air conditioning systems service to NATEF standards.
12) Perform current vehicle engine performance systems service to NATEF standards.

Requirements for Program Entrance
ENG 101 ready and Elementary Algebra with Geometry (or Math 098 currently registered in or higher). Valid driver’s license.

Distribution Requirements

OPTION 1 - GM - Automotive Service Educational Program (ASEP)

FIRST SEMESTER: 19.5 Credit Hours
ATP 101 Introduction to Automotive Technology ......................................................... 5
ATP 102 Electrical/Electronic Systems 1 - Automotive .............................................. 3
ATP 105 Brakes - Automotive .................................................................................... 4.5
ATP 141 Automotive Technology - Coop I ................................................................ 2
HEALTH/PHYSICAL EDUCATION ........................................................................ 2
ENG 101 College Composition OR ENG 200 Advanced Composition ............... 3

SECOND SEMESTER: 18 Credit Hours
MTH 104 Intermediate Algebra OR
MTH 135 Introduction to Technical Mathematics* OR
MTH 164 Introduction to Trigonometry AND MTH 165 College Algebra OR
MTH 175 Precalculus Mathematics with Analytic Geometry (or higher) .................. 4

TOTAL CREDITS GM - Automotive Service Educational Program (ASEP) 69.5

OPTION 2 - TOYOTA/Scion/Lexus Technical Educational Network (T-TEN)

FIRST SEMESTER: 17.5 Credit Hours
ATP 101 Introduction to Automotive Technology ......................................................... 5
ATP 102 Electrical/Electronic Systems 1 - Automotive .............................................. 3
ATP 105 Brakes - Automotive .................................................................................... 4.5
HEALTH/PHYSICAL EDUCATION ........................................................................ 2
ENG 101 College Composition OR ENG 200 Advanced Composition ............... 3

SECOND SEMESTER: 17 Credit Hours
MTH 104 Intermediate Algebra OR
MTH 135 Introduction to Technical Mathematics* OR
MTH 164 Introduction to Trigonometry AND MTH 165 College Algebra OR
MTH 175 Precalculus Mathematics with Analytic Geometry (or higher) .................. 4
PHY 100 Preparatory Physics OR
PHY 131 Applied Physics I (or higher) ...................................................................... 4
ATP 103 Electrical 2 - Automotive ......................................................................... 4
ATP 108 Engine Repair - Automotive .................................................................... 4
ATP 140 Automotive Technology Coop Seminar ..................................................... 1

THIRD SEMESTER: 16 Credit Hours
SOCIAL SCIENCE ELECTIVE ................................................................................ 3
HUMANITIES ELECTIVE .................................................................................... 3
ATP 107 Automatic Transmission and Transaxle - Automotive ......................... 4
ATP 109 Heating and Air Conditioning - Automotive ............................................. 4
ATP 104 Emissions Controls, Computer Fuel Systems ........................................... 4

TOTAL CREDITS TOYOTA/Scion/Lexus Technical Educational Network (T-TEN) 60

www.monroecc.edu/go/academicprograms
## AUTOMOTIVE TECHNOLOGY CERTIFICATE PROGRAM

<table>
<thead>
<tr>
<th>FIRST SEMESTER: 9 Credit Hours</th>
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<tbody>
<tr>
<td>ATP 101 Introduction to Automotive Technology</td>
</tr>
<tr>
<td>ATP 140 Automotive Technology Coop Seminar</td>
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<tr>
<td>ENG 101 College Composition</td>
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<table>
<thead>
<tr>
<th>SECOND SEMESTER: 9 Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MTH 104 Intermediate Algebra OR MTH 135 Introduction to Technical Mathematics* OR MTH 164 Introduction to Trigonometry AND MTH 165 OR MTH 175 Precalculus Mathematics with Analytic Geometry (or higher)</td>
</tr>
<tr>
<td>ATP 171 Automotive Technology - Coop I</td>
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<table>
<thead>
<tr>
<th>SUMMER SEMESTER: 11.5 Credit Hours</th>
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<tbody>
<tr>
<td>ATP 105 Brakes - Automotive</td>
</tr>
<tr>
<td>ATP 103 Electrical 2 - Automotive</td>
</tr>
<tr>
<td>ATP 172 Automotive Technology - Coop II</td>
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<table>
<thead>
<tr>
<th>THIRD SEMESTER: 10 Credit Hours</th>
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<tbody>
<tr>
<td>ATP 106 Steering and Suspension - Automotive</td>
</tr>
<tr>
<td>ATP 173 Automotive Technology - Coop III</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
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<table>
<thead>
<tr>
<th>FIFTH SEMESTER: 6 Credit Hours</th>
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<tbody>
<tr>
<td>ATP 109 Heating and Air Conditioning - Automotive</td>
</tr>
<tr>
<td>ATP 174 Automotive Technology - Coop IV</td>
</tr>
<tr>
<td>PHY 100 Preparatory Physics OR PHY 131 Applied Physics OR (higher)</td>
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<td><strong>Total 9</strong></td>
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<table>
<thead>
<tr>
<th>SUMMER SEMESTER: 9 Credit Hours</th>
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<tbody>
<tr>
<td>ATP 107 Automatic Transmission and Transaxle - Automotive</td>
</tr>
<tr>
<td>ATP 108 Engine Repair - Automotive</td>
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<table>
<thead>
<tr>
<th>SIXTH SEMESTER: 7 Credits</th>
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<tbody>
<tr>
<td>ATP 112 Engine Performance - Automotive</td>
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<tr>
<td>LIBERAL ARTS ELECTIVE*</td>
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**TOTAL CREDITS APPRENTICE TRAINING - AUTOMOTIVE PROGRAM (A-TAP) 70.5**
### AUTOMOTIVE TRAINING APPRENTICE PROGRAM (A-TAP)

<table>
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<tr>
<th>Program</th>
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<tbody>
<tr>
<td>Certificate</td>
<td>EVENING</td>
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#### Description

See Automotive Technology

<table>
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<tr>
<th>Semester</th>
<th>Credits</th>
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<tr>
<td>SUMMER SEMESTER</td>
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</table>

**TOTAL CREDITS AUTOMOTIVE TRAINING APPRENTICE PROGRAM (A-TAP) CERTIFICATE**: 44.5

Two years of high school Regents algebra are recommended. Students with math deficiencies have to enroll in extra preparatory math course(s).

### BIOLOGY ADVISEMENT SEQUENCE

#### A.S. DEGREE

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MTH 175 Precalculus Mathematics with Analytic Geometry (or higher)</td>
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<tr>
<td>MTH 164 Introduction to Trigonometry</td>
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<tr>
<td>MTH 165 College Algebra</td>
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<tr>
<td>OR</td>
<td></td>
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<tr>
<td>MTH 135 Introduction to Technical Mathematics*</td>
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<td>OR</td>
<td></td>
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<tr>
<td>MTH 104 Intermediate Algebra</td>
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<td>OR</td>
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</tr>
<tr>
<td>ENG 101 College Composition</td>
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</table>

**TOTAL CREDITS AUTOMOTIVE TRAINING APPRENTICE PROGRAM (A-TAP) CERTIFICATE**: 44.5

#### Description

See Liberal Arts and Sciences Program - Science Transfer Opportunities

### BIOLOGY

#### A.S. DEGREE

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>MTH 175 Precalculus Mathematics with Analytic Geometry (or higher)</td>
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<td>MTH 104 Intermediate Algebra</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>ENG 101 College Composition</td>
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</table>

**TOTAL CREDITS AUTOMOTIVE TRAINING APPRENTICE PROGRAM (A-TAP) CERTIFICATE**: 44.5

#### Description

The Biology program is recommended for individuals with a strong interest in biology-related fields. The purpose of the Biology program is to prepare students for transfer to a four-year university with junior status. The curriculum provides students with a broad based biology education enabling them to explore a variety of biological science disciplines before declaring the field they will pursue. Because of the rigor associated with this program, a potential student should not only have demonstrated a desire for the biological sciences, but also successfully completed a variety of science-intensive high school courses in areas such as, biology, chemistry, physics, and mathematics.

Students who plan to complete this program in two years should have, 1) Completed high school biology with a grade of B or higher and a Regents biology examination score of 80 or higher OR completed Biology 120 at MCC with a grade of “C” or higher, 2) Regents chemistry examination score of 70 or higher OR Chemistry 145 at MCC with a grade of “C” or higher, 3) English placement at the English 101 level or higher, 4) Math placement at the level 9 OR MTH 165 at MCC with a grade of “C” or higher. (Housed in the Biology Department)

#### Program Learning Outcomes

1. Summarize major biological concepts common to college-level study of the discipline.
2. Communicate effectively concepts related to college-level study of the biological sciences.
3. Apply the scientific method to questions common to the biological sciences.
4. Apply biological concepts to solve biology-oriented problems.
5. Evaluate scientific information.
6. Perform biological laboratory or field techniques correctly while meeting safety standards

#### Requirements for Program Entrance

Students who plan to complete this program in two years should have, 1) Completed high school biology with a grade of B or higher and a Regents biology examination score of 80 or higher OR completed Biology 120 at MCC with a grade of “C” or higher, 2) Regents chemistry examination score of 70 or higher OR Chemistry 145 at MCC with a grade of “C” or higher, 3) English placement at the English 101 level or higher, 4) Math placement at the level 9 OR MTH 165 at MCC with a grade of “C” or higher or permission of the Monroe Community College Biology Department. Recommended high school courses: Mathematics, Biology, Chemistry, English Composition.
Academic Programs

BIO 155 General Biology I .................................................. 4
CHE 151 General College Chemistry I .................................... 4
MTH 175 (or higher): Precalculus Mathematics with Analytic Geometry .... 4
ENG 101/200: English Composition or Advanced Composition ........ 3
PHYSICAL/HEALTH EDUCATION .................................. 2

TOTAL 17

SECOND SEMESTER: 14 CREDIT HOURS

BIO 156 General Biology II .................................................. 4
CHE 152 General College Chemistry II ............................... 4
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE ....... 3
SUNY GENERAL EDUCATION HUMANITIES ELECTIVE ............ 3

TOTAL 14

THIRD SEMESTER: 14 CREDIT HOURS

COGNATE ELECTIVE* .......................................................... 3
PROGRAM ELECTIVE* ...................................................... 4

TOTAL 14

FOURTH SEMESTER: 17 CREDIT HOURS

COGNATE ELECTIVE* .......................................................... 4
COGNATE ELECTIVE* ...................................................... 3
PROGRAM ELECTIVE* ...................................................... 4
ELECTIVE** ................................................................. 3

TOTAL 17

TOTAL CREDITS 62

* Program Elective: Choose two courses from the following: BIO 208, BIO 230, and BIO 260.
** Cognate Elective: Choose 3 courses from the following list:
   CHE 251
   CHE 252
   MTH 160 PHY 145 or 154 PHY 146 or 155
   **Cognate Elective - Any credit bearing course. The student must complete a minimum of 6 general elective credits in order to meet the necessary credit requirement to transfer to a four-year college/university as a junior (minimum 60 credits not counting MCC PE/HED requirement). Which courses to take depends upon where the student is transferring.

BIOTECHNOLOGY
A.A.S. DEGREE

CIP Code: 41.0101
NYSED Code (BRI): 85078

MCC Program Code: BT01

Description
Biotechnology is best defined as the exploitation of biological systems or processes. Although this is not an entirely new concept, the current biotechnology boom is the result of recent developments in molecular biology knowledge and techniques. The Biotechnology career program is recommended for individuals with a strong interest in biology, biochemistry and molecular genetics. Emphasis will be on the molecular biology concepts, techniques, and instrumentation that are basic to understanding the application of biological systems. Graduates of this program may be employed in health care and pharmaceutical companies, microbiological and environmental testing companies, food processing industries, and any university or industry laboratory engaged in molecular biology research and development. Students who are not seeking immediate employment have the option of transferring to a four-year institution to pursue an advanced degree.

Recommended Preparation: Students who plan to complete this program in two years should have successfully completed high school biology with a grade of B or better and high school chemistry with C or better, and three years of high school mathematics including trigonometry, high school physics is recommended.

(Housed in Biology Department)

Program Learning Outcomes
1) Communicate effectively in writing.
2) Demonstrate effective oral communication skills.
3) Solve problems related to biological topics.
4) Utilize appropriate computer skills effectively for routine laboratory applications.
5) Discuss foundational concepts in the discipline of molecular biology.
6) Discuss foundational concepts in the discipline of biochemistry.
7) Apply the principles of core molecular biology techniques commonly employed in a research/industry laboratory.
8) Conduct appropriate experiment protocols.
9) Analyze and interpret experimental data.
10) Operate laboratory equipment commonly used in a research/industry setting.

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or MTH 104 at MCC). Biology, Chemistry.

Distribution Requirements

FIRST SEMESTER: 17 CREDIT HOURS

ENG 101/200: English Composition or Advanced Composition ........ 3
HUMAINITIES ELECTIVE ................................................. 3
SOCIAL SCIENCE ELECTIVE ......................................... 3
TOTAL 17

SECOND SEMESTER: 15 CREDIT HOURS

ENG 101/200: English Composition or Advanced Composition ........ 3
HUMAINS ELECTIVE ...................................................... 3
SOCIAL SCIENCE ELECTIVE ......................................... 3
TOTAL 15

THIRD SEMESTER: 16 Credit Hours

BIO 221 Principles of Biochemistry .................................... 4
BIO 209 General Microbiology ........................................ 4
PROGRAM ELECTIVE** .................................................. 3

TOTAL 16

FOURTH SEMESTER: 15 CREDIT HOURS

BIO 230 Molecular Genetics ............................................. 4
BIO 225 Bioanalytical Techniques I .................................... 4
BIO 227 Biotechnology Seminar ....................................... 1
SOCIAL SCIENCE ELECTIVE ......................................... 3
PROGRAM ELECTIVE** .................................................. 3

TOTAL 15

TOTAL CREDITS 63

* MTH 160 or MTH 165 or higher.
** PROGRAM ELECTIVES to be chosen from the following: CHE 251, CHE 252, CRC 101 or CRC 125 or equivalent; PHY 145, PHY 146 or higher. Final selection of courses should be made only after consulting with program advisor.
BUSINESS ADMINISTRATION

A.S. DEGREE

CIP Code: 52.0201
NYSED Code (BRI): 01210
NYSED Code (DCC): 19248

Description

The Business Administration degree is a university-parallel program equivalent to the first two years of a bachelor degree program. This program prepares students for majors in such areas as accounting, finance, management, marketing, human resources, economics, entrepreneurship, E-Business, small business management, and other business-related fields.

The Business Administration Program includes business and general education courses to provide a sound background for further study and a career in business.

Please note that this program includes nine credit hours of business electives and general electives. This permits the student to pursue either of two alternate courses of action:

1) Build a concentration in a specific business area by taking courses with the following prefixes: ACC, BUS, ECO, MAR OR
2) Acquire up to six credit hours of non-business course work with a view toward imparting the greatest measure of transfer potential for upper-level programs elsewhere. Students who are planning on transferring to a SUNY school should use these credits towards completion of the SUNY General Education requirements.

(Housed in Business Administration and Economics Department.)

Program Learning Outcomes

1) Utilize identified accounting concepts to make informed decisions about the operating performance and financial position of an organization.
2) Explain the major concepts of management theory and organizational behavior which could include motivation, leadership, team processes, communication, decision making, organizational structure, organizational culture, or organizational change.
3) Describe core marketing concepts used to successfully market an organization.
4) Identify and explain laws that are relevant to the operation of a modern business organization.

Requirements for Program Entrance

Intermediate Algebra with Trigonometry (or Math 104 at MCC).

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition ........................................... 3
MTH 165 College Algebra (or higher)*.......................................................................................... 3
BUS 104 Introduction to Business .................................................................................................. 3
ACC 101 Accounting Principles I** .......................................................... 4
PHYSICAL/HEALTH EDUCATION ......................................................................................... 2

Total 15

SECOND SEMESTER: 16 Credit Hours

LITERATURE ELECTIVE* .................................................................................................................. 3
MTH 160 Statistics I .......................................................................................................................... 3
MAR 200 Principles of Marketing .................................................................................................... 3
ACC 102 Accounting Principles II .................................................................................................. 4
SUNY-GENERAL EDUCATION AMERICAN HISTORY OR
WESTERN CIVILIZATION OR
OTHER WORLD CIVILIZATIONS ELECTIVE* ............................................................ 3

Total 16

THIRD SEMESTER: 18 Credit Hours

ECO 111 Principles of Microeconomics .......................................................................................... 3
BUS 201 Business Law I .................................................................................................................. 3
BUS 204 Management Theory and Practice OR
BUS 208 Organizational Behavior* ................................................................................................. 3
HUMANITIES ELECTIVE* ............................................................................................................... 3
SOCIAL SCIENCE ELECTIVE .......................................................................................................... 3
ELECTIVE* ...................................................................................................................................... 3

Total 18

FOURTH SEMESTER: 15 Credit Hours

ECO 112 Principles of Macroeconomics ........................................................................................ 3
SUNY-GENERAL EDUCATION NATURAL SCIENCE ELECTIVE* ........................................................... 3 or higher
MATHEMATICS* ................................................................................................................................ 3
ELECTIVE* ...................................................................................................................................... 3
BUSINESS ELECTIVE* ....................................................................................................................... 3

Total 15

TOTAL CREDITS 64

* The student should first consult with his/her adviser to insure the appropriate selection of electives to meet the student’s transfer and career goals. Refer to existing 2+2 Dual Admission Programs (available on the MCC website) OR Articulation Agreements (available in the MCC Career and Transfer Center), OR contact the receiving institution for guidance. The department recommends the student consider the following electives:

- Mathematics: MTH 161, MTH 200 or MTH 210
- Natural Science: a laboratory science
- Business Elective (Recommended): BUS 220 or any course with the prefix: ACC, BUS, or MAR.

** May take ACC 110 and ACC 111
BUSINESS: INTERNATIONAL BUSINESS

A. S. DEGREE

CIP Code: 52.1101
NYSED Code (BRI): 19714
NYSED Code (DCC): 19715

Description

This program is designed to prepare students to transfer to a four-year college or university offering majors in business, international business, marketing, economics, finance, or a related area. The curriculum provides the student who is considering a career in international business, commerce or diplomacy with a solid background in language, culture, international politics, and business. The program will provide the student with a better understanding of global political, social, economic, and trade relationships by blending elements of liberal arts and business curricula.

Students should meet regularly with their program advisor to make certain that their course selections meet the requirements of the college and major to which they plan to transfer.

Recommended Preparation: Three years of high school mathematics through intermediate algebra are required. Applicants should have enough background in a foreign language to enter MCC courses at the intermediate level. Information concerning foreign language placement is available in the Business Department and the World Language and Cultures Department. Students not meeting these requirements may need more than two years to complete this degree.

(Housed in the Business Administration and Economics Department)

Program Learning Outcomes

1) Utilize identified accounting concepts to make informed decisions about the operating performance and financial position of an organization.
2) Explain the major concepts of management theory and organizational behavior which could include motivation, leadership, team processes, communication, decision making, organizational structure, organizational culture, or organizational change.
3) Describe core marketing concepts used to successfully market an organization.
4) Identify and describe laws that are relevant to the operation of a modern business organization.
5) Identify and describe the major factors related to a global business enterprise which could include management, marketing, entry strategies, and global trade or investment.

Requirements for Program Entrance

Please contact the Admissions Office.

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR
ENG 200 Advanced Composition ......................................................... 3
ECO 111 Principles of Microeconomics ............................................. 3
MTH 165 College Algebra (or higher) .................................................. 3
SOCIAL SCIENCE ELECTIVE** ......................................................... 3
BUS 104 Introduction to Business .................................................... 3

Total 15

SECOND SEMESTER: 17 Credit Hours

LITERATURE ELECTIVE** ................................................................. 3
ECO 112 Principles of Macroeconomics ............................................ 3
MTH 180 Statistics I ................................................................. 3
SOC 210 Global Interdependence .................................................. 3
PHYSICAL/HEALTH EDUCATION ................................................ 2
MAR 200 Principles of Marketing I ................................................. 3

Total 17

THIRD SEMESTER: 16 Credit Hours

FOREIGN LANGUAGE* ................................................................. 3
ACC 101 Accounting Principles I*** ............................................ 4
BUSINESS ELECTIVE**** ............................................................. 3
GEG 211 Economic Geography .................................................... 3
NATURAL SCIENCE ELECTIVE** .................................................. 3

Total 16

FOURTH SEMESTER: 16 Credit Hours

FOREIGN LANGUAGE* ................................................................. 3
ACC 102 Accounting Principles II ............................................... 4
SOCIAL SCIENCE ELECTIVE** ..................................................... 3
BUS 250 International Management and Marketing Seminar ........ 3
ELECTIVE** .................................................................................. 3

Total 16

TOTAL CREDITS 64

* Foreign language level to be determined by World Languages and Cultures Department. Students lacking high school language will take introductory 101 and 102 courses.
** Students should first consult with their advisor to ensure the appropriate selection of electives to meet their transfer and career goals. Refer to existing 2+2 articulation agreements (available on the MCC website), or contact the receiving institution for guidance. The Department recommends you consider the following electives:
SOCIAL SCIENCES: ANT 102, ANT 230, GEG 102, HIS 114, POS 206
MATHEMATICS: MTH 200 or MTH 210
NATURAL SCIENCE: A laboratory science
*** May take ACC 110 and ACC 111
**** BUSINESS ELECTIVES: BUS 204 or BUS 220

BUSINESS: OFFICE TECHNOLOGY-OFFICE ADMINISTRATIVE

ASSISTANT

A. A. S. DEGREE

Description

See Office Technology - Office Administrative Assistant
CHEMISTRY

A.S. DEGREE

CIP Code: 40.0501
MCC Program Code: LSC1
NYSED Code (BRI): 37105

Description
The Liberal Arts and Sciences: Chemistry A.S. degree program prepares students to transfer and earn a Baccalaureate degree in Chemistry or a related area, by providing both chemistry and general education courses that parallel the first two years at a four-year institution.

Program Learning Outcomes
1. Discuss key principles of atomic and molecular structure, chemical bonding, conformational analysis, and stereochemistry.
2. Use dimensional analysis to perform unit conversions and stoichiometry problems.
3. Discuss fundamental concepts of dynamics, equilibrium, thermochemistry, and electrochemistry.
4. Assign IUPAC names to simple inorganic and organic compounds.
5. Predict products of a chemical reaction from given starting materials and reagents.
6. Propose reaction mechanisms for a given reaction using curved arrow notation.
7. Design multistep synthesis (less than ten steps) for organic compounds using retrosynthetic analysis.
8. Record observations in an organized manner.
9. Synthesize a hypothesis based on experimental observations.
10. Demonstrate beginning laboratory skills, such as keeping a lab notebook, use of electronic balances and volumetric glassware, preparation of solutions, and chemical measurements using pH electrodes and spectrophotometers.
11. Demonstrate intermediate laboratory techniques, such as those involved in the synthesis and characterization of organic compounds.
12. Analyze and interpret laboratory results.
13. Write formal lab reports to convey results of experiments in a clear, logical manner.

Requirements for Program Entrance
Math requirement: Regents Algebra 2/Trigonometry (exam score >/= 83) OR Level 9 Math at MCC OR MTH 165 (grade of C or better).
Chemistry requirement: Regents Chemistry (exam score >/= 70) OR CHE 145 (grade of C or better).

Distribution Requirements Credit Hours
FIRST SEMESTER: 16 CREDIT HOURS
CHE 151 General College Chemistry I ................................................................................ 4
MTH 210 Calculus I ............................................................................................................. 4
ENG 101 English Composition OR ENG 200 Advanced English Composition .......................... 3
PHYSICAL/HEALTH EDUCATION ....................................................................................... 2
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE ............................................. 3
TOTAL 16

SECOND SEMESTER: 17 CREDIT HOURS
CHE 152 General College Chemistry II .............................................................................. 5
PHY 161 University Physics I .............................................................................................. 4
SOCIAL SCIENCE ELECTIVE ............................................................................................. 3
SUNY GENERAL EDUCATION LITERATURE HUMANITIES ELECTIVE ............................ 3
TOTAL 15

TOTAL CREDITS 63

CHEMISTRY ADVISEMENT SEQUENCE
A.S. DEGREE

Description
See Liberal Arts and Sciences Program - Science Transfer Opportunities

CHILD CARE PRACTITIONER ADVISEMENT SEQUENCE
A.S. DEGREE

Description
See Liberal Arts and Sciences Program - General Studies Transfer Opportunities

CHILDHOOD EDUCATION (TEACHER EDUCATION TRANSFER)
A.A. DEGREE

Description
See Liberal Arts and Sciences: Childhood Education
CINEMA AND SCREEN STUDIES

A.S. DEGREE

CIP Code: 50.0901
NYSED Code (BRI): 31437
NYSED Code (DCC): 31436

Description

The Cinema and Screen Studies Program offers a strong Liberal Arts perspective on motion picture and television history, culture, theory, and production. Students are introduced to cinema as a medium of mass communication which combines two art forms, photography and theater, to communicate powerful stories with vivid pictures and strong emotion. Students investigate cinema and television through critical studies and create images of their own through scriptwriting and introductory production opportunities. Finally, students gain an appreciation for cinema and television from a commercial standpoint since these media exist not only in the marketplace of ideas but also as end products of an industrial enterprise.

Upon completion of this degree, students are able to continue their studies at baccalaureate film or mass media degree programs where they apply what they have learned at MCC to more advanced studies in this or related fields.

(Housed in the Visual and Performing Arts Department)

Program Learning Outcomes

1) Demonstrate a knowledge and perspective of the history of cinema.
2) Demonstrate a knowledge and perspective of the theories employed in storytelling to a mass audience.
3) Ability to critically analyze cinema television or web-based content.
4) Demonstrate introductory proficiency in scriptwriting.
5) Demonstrate introductory proficiency in production of moving images.

Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC).
Placement into ENG 101 or ENG 200.

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR
ENG 200 Advanced Composition* ................................................. 3
HIS 105 Western Civilization: Ancient to Medieval ................................................. 3
COM 120 Media Literacy ................................................................................. 3
CIN 120 The Movies .................................................................................. 3
HUMANITIES ELECTIVE** ......................................................................... 3
Total 15

SECOND SEMESTER: 16-17 Credit Hours

SOC 101 Introduction to Sociology OR
PSY 101 Introductory Psychology ........................................................................ 3
MTH 150 Survey of Mathematics or higher .................................................. 3
CIN 122 Cinema Drama .................................................................................. 3
PROGRAM ELECTIVE .................................................................................. 3
NATURAL SCIENCE ELECTIVE .................................................................. 3-4
PHYSICAL/HEALTH EDUCATION ............................................................... 1
Total 16-17

THIRD SEMESTER: 16 Credit Hours

HIS 112 History of the United States Since 1865 ............................................... 3
CIN 121 Cinema Comedy ............................................................................... 3
CIN 221 The Movie Business ........................................................................ 3
HUMANITIES ELECTIVE** .......................................................................... 3
ELECTIVE** .................................................................................................. 3
PHYSICAL/HEALTH EDUCATION ............................................................... 1
Total 16

FOURTH SEMESTER: 15-16 Credit Hours

CIN 222 Topics in Cinema and Screen Studies ............................................ 3
COM 230 Scriptwriting .................................................................................. 3
PROGRAM ELECTIVE ................................................................................ 3
NATURAL SCIENCE ELECTIVE ................................................................ 3-4
ELECTIVE** .................................................................................................. 3
Total 15-16

TOTAL CREDITS 62-64

CLINICAL LABORATORY TECHNICIAN/MEDICAL LABORATORY TECHNICIAN

A.A.S. DEGREE

CIP Code: 51.1904
NYSED Code (BRI): 34458

Description

This program is designed to prepare Clinical Laboratory Technicians/Medical Laboratory Technicians, under the supervision of Clinical Laboratory Scientists/ Medical Technologists, to perform medical laboratory procedures. The CLT/MLT graduate will be competent in applying theory to practice and employ laboratory strategies in recording and analyzing data/results. The program includes instruction in general laboratory procedures and skills; laboratory mathematics; medical computer applications; interpersonal and communications skills; the basic principles of hematology, medical microbiology; immunohematology; immunology; serology; clinical chemistry, and body fluids/urinalysis. Graduates of the program can expect a favorable job market with increasing needs and growth opportunities.

Fall admission only.

The graduate of this program will be eligible to sit for the New York State Medical Laboratory Technician Licensing exam and for the American Society for Clinical Pathology (ASCP) Board of Certification (BOC) certification exam.*

* The NYS Office of Professions has agreed to use the ASCP BOC exam. Graduates will need to go through two application processes and pay two application fees, but they will only have to pass one exam.

(Housed in the Biology Department)

Program Learning Outcomes

1) Recognize the role, scope of practice and responsibilities of health care personnel.
2) Demonstrate professional conduct and interpersonal communication skills with patients, coworkers and the community.
3) Demonstrate a good work ethic and demonstrate a sound ethical and moral decision making process.
4) Recognize and comply with organizational, State and Federal regulations regarding Laboratory Safety and infection control procedures.
5) Recognize and comply with organizational, State and Federal regulations regarding Patient care and confidentiality and demonstrate advocacy for the patient.
6) Describe educational legislation and regulations of the Medical Technology Profession and demonstrate willingness and intention to employ continuing education as a function of growth and certification maintenance within the clinical laboratory profession.
7) Recognize and utilize quality control protocols and participate in quality assurance programs at the pre-analytical, analytical and post-analytical phases of laboratory operations.
8) Describe the human anatomy, physiology and pathophysiology as it relates to blood and body fluid analysis and clinical correlation at the molecular and macromolecular level.
9) Describe the human anatomy, physiology and pathophysiology as it relates to blood and body fluid analysis and clinical correlation at the cellular level.
10) Describe the human anatomy, physiology and pathophysiology as it relates to blood and body fluid analysis and clinical correlation at the tissue level.
11) Describe the human anatomy, physiology and pathophysiology as it relates to blood and body fluid analysis and clinical correlation at the organ system level.
12) Collect and process blood, body fluids and other biological specimens for analysis.
13) Collect and/or process blood and blood components and analyze for compatibility prior to distribution as part of transfusion therapy.
14) Perform routine laboratory procedures, ensuring validity, and differentiate between normal and abnormal results and take necessary action with critical values.
15) Recognize factors that influence procedures and results and take appropriate steps when indicated and perform and interpret basic QC procedures and take corrective actions when appropriate.
16) Operate and maintain basic laboratory equipment and perform scheduled preventive maintenance on equipment and recognize when it is appropriate and necessary to seek professional repair services.
17) Describe the basic concepts of analyze measurement and detection and recognize what instruments and analyzers employ these basic concepts.
18) Apply knowledge of theory and principles relative to collecting and processing specimens for analysis.
19) Apply knowledge of theory and principles relative to analyzing and verifying validity of results of analysis.
20) Apply knowledge of theory and principles relative to correlating and reporting results of analysis.
21) Apply basic scientific principles and theory, as well as demonstrate the ability, to learn new techniques and procedures.

Requirements for Program Entrance
Intermediate Algebra II with Trigonometry (or MTH 104 at MCC) and Biology both with a grade of C or better. High school Chemistry is recommended. Admission to this program is September only.
Please contact the Admissions Office regarding current admission criteria and/or geographic limitations.

Distribution Requirements

**FIRST SEMESTER: (Fall) 18-19 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 134 Human Anatomy and Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145 Preparation for General College Chemistry</td>
<td>4</td>
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<tr>
<td>CLT 100 Introduction to Medical Laboratory Technology</td>
<td>2</td>
</tr>
<tr>
<td>ENS 101 College Composition OR</td>
<td>3</td>
</tr>
<tr>
<td>MTH 165 College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>MTH 175 Precalculus Mathematics with Analytical Geometry OR higher</td>
<td>3-4</td>
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<tr>
<td>PHL 103 Introduction to Ethics</td>
<td>3</td>
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**SECOND SEMESTER: (Spring) 12 Credit Hours**

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<th>Course</th>
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<tbody>
<tr>
<td>BIO 135 Anatomy and Physiology II</td>
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<tr>
<td>BIO 148 Fundamentals of Biology and Immunology</td>
<td>3</td>
</tr>
<tr>
<td>CLT 110 Specimen Procurement and Processing</td>
<td>3</td>
</tr>
<tr>
<td>CLT 120 Body Fluids and Urinalysis</td>
<td>2</td>
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<tr>
<td>CLT 140 Immunology</td>
<td>2</td>
</tr>
<tr>
<td>CLT 145 Serological Techniques</td>
<td>1</td>
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**THIRD SEMESTER: (Summer) 5 Credit Hours**

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<tbody>
<tr>
<td>BIO 202 Microbiology</td>
<td>4</td>
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<tr>
<td>CLT 150 Histology Techniques</td>
<td>1</td>
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**FOURTH SEMESTER: (Fall) 17 Credit Hours**

<table>
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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CLT 203 Diagnostic Microbiology</td>
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<tr>
<td>CLT 210 Clinical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CLT 220 Immunohematology</td>
<td>4</td>
</tr>
<tr>
<td>CLT 230 Hematology/Coagulation</td>
<td>4</td>
</tr>
<tr>
<td>MTH 160 Statistics I</td>
<td>3</td>
</tr>
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</table>

**FIFTH SEMESTER (Spring): 16 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIO 230 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>CLT 251 Clinical Affiliate Clinical Rotation I – Body Fluids/Urinalysis and Immunology/Serology*</td>
<td>2</td>
</tr>
<tr>
<td>CLT 253 Clinical Affiliate Clinical Rotation II – Microbiology and Blood Bank*</td>
<td>2</td>
</tr>
<tr>
<td>CLT 255 Clinical Affiliate Clinical Rotation III – Clinical Chemistry and Clinical Hematology*</td>
<td>2</td>
</tr>
<tr>
<td>CLT 260 Clinical/Medical Laboratory Technology Seminar**</td>
<td>2</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
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</tr>
<tr>
<td>Total 16</td>
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</tbody>
</table>

TOTAL CREDITS 68-69

* 4 wks, Four 8 hour days = 32 hrs/wk = 128 hours/rotation
** 3 wks, 10 hrs/wk

Fall Admission only.
COMMUNICATION AND MEDIA STUDIES

A. S. DEGREE

CIP Code: 09.0101
NYSED Code (BRI): 84485
MCC Program Code: CM01

Description
The Communication and Media Studies program provides an excellent foundation in liberal arts and sciences, emphasizing courses in writing, speaking, and the media. This program prepares students for transfer in areas such as journalism, media, public relations, corporate communications, and advertising. (Housed in the Visual and Performing Arts Department)

Program Learning Outcomes
1) Demonstrate competency in the speaking and listening communication skills expected of a future professional to inform, persuade and engage others.
2) Demonstrate competency in written communication skills to produce professional communication documents for specific audiences and situations that inform, promote or entertain.
3) Produce and evaluate communication messages through a variety of critical and creative approaches.
4) Employ the ability to process information in a variety of contexts.
5) Explain the historical development of the mass media in the United States placing that history in context to its current trends.
6) Explain the influence the mass media has in shaping society.
7) Practice the ethical and legal standards in the mass media and other professional communication practices.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements
Credit Hours

FIRST SEMESTER: 15 CREDIT HOURS

ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
SPC 141 Interpersonal Communication ....................................................................................... 3
SUNY GENERAL EDUCATION - MTH 150 Survey of Mathematics or higher ................................ 3
COM 101 Introduction to Mass Media .......................................................................................... 3
SOC 101 Introduction to Sociology - WR .................................................................................... 3

TOTAL 15

SECOND SEMESTER: 15 CREDIT HOURS

ENG 250 Professional Communications ..................................................................................... 3
SPC 142 Public Speaking ............................................................................................................. 3
COM 131 Principles of Journalism ............................................................................................... 3
COM 142 Broadcast Performance ................................................................................................. 3

TOTAL 15

THIRD SEMESTER: 17 CREDIT HOURS

COM 130 Media Writing ............................................................................................................... 3
SUNY GENERAL EDUCATION HUMANITIES ELECTIVE ............................................................ 3
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ................................................. 3

TOTAL 17

FOURTH SEMESTER: 15 CREDIT HOURS

COM 131 Principles of Journalism ............................................................................................... 3
COM 142 Broadcast Performance ................................................................................................. 3
COM 270 Media and Society ......................................................................................................... 3
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ................................................. 3

TOTAL 15

PUBLIC RELATIONS TRACK

FIRST SEMESTER: 15 CREDIT HOURS

ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
SPC 141 Interpersonal Communication ....................................................................................... 3
MTH 160 Statistics I ..................................................................................................................... 3
COM 101 Introduction to Mass Media .......................................................................................... 3
SOC 101 Introduction to Sociology - WR .................................................................................... 3

TOTAL 15

SECOND SEMESTER: 15 CREDIT HOURS

ENG 250 Professional Communications ..................................................................................... 3
SPC 142 Public Speaking ............................................................................................................. 3
COM 120 Media Literacy ............................................................................................................... 3
SUNY GENERAL EDUCATION FOREIGN LANGUAGE ................................................................. 3
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ................................................. 3

TOTAL 15

THIRD SEMESTER: 17 CREDIT HOURS

COM 130 Media Writing ............................................................................................................... 3
SOCIAL SCIENCE ELECTIVE ....................................................................................................... 3
SUNY GENERAL EDUCATION HUMANITIES ELECTIVE ............................................................ 3
ELECTIVE* .................................................................................................................................... 3

TOTAL 17

SPEECH COMMUNICATION TRACK

FIRST SEMESTER: 15 CREDIT HOURS

ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
SPC 141 Interpersonal Communication ....................................................................................... 3
SUNY GENERAL EDUCATION - MTH 150 Survey of Mathematics or higher ................................ 3
COM 101 Introduction to Mass Media .......................................................................................... 3
SOC 101 Introduction to Sociology - WR .................................................................................... 3

TOTAL 15

SECOND SEMESTER: 15 CREDIT HOURS

ENG 250 Professional Communications ..................................................................................... 3
SPC 142 Public Speaking ............................................................................................................. 3
COM 120 Media Literacy ............................................................................................................... 3
SUNY GENERAL EDUCATION FOREIGN LANGUAGE ................................................................. 3
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ................................................. 3

TOTAL 15

TOTAL CREDITS 62

TOTAL CREDITS 62

TOTAL CREDITS 62

TOTAL CREDITS 62

TOTAL CREDITS 62
THIRD SEMESTER: 17 CREDIT HOURS

SPC 143 Small Group Communication ................................................................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
SUNY GENERAL EDUCATION HUMANITIES ELECTIVE ..................................... 3
ELECTIVE* .............................................................................................................. 3
ELECTIVE* .............................................................................................................. 3
PHYSICAL/HEALTH EDUCATION ........................................................................ 2

TOTAL 17

FOURTH SEMESTER: 15 CREDIT HOURS

SPC 241 Advanced Public Speaking ................................................................. 3
SPC 242 Advanced Interpersonal Communications ......................................... 3
COM 270 Media and Society ............................................................................. 3
ELECTIVE* .............................................................................................................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3

TOTAL 15

TOTAL CREDITS 62

* As recommended by advisor.
** COM 150 and COM 267 recommended for broadcast journalism students transferring to SUNY Brockport
+ SPC 143 recommended for Public Relations students

COMPUTER AIDED DESIGN AND DRAFTING

CERTIFICATE PROGRAM

CIP Code: 15.1302
NYSED Code (BRI): 33719
NYSED Code (DCC): 33720

Description
The outcomes of this certificate program will prepare a student for employment in the field of Computer Aided Design and Drafting. The curriculum covers a broad base of current Computer Aided Design and Engineering skills necessary for success and productivity in modern industry. Course content covers basic geometric creation, geometric data management, communications, manufacturing process interfaces, rapid prototyping, design optimization and design analysis.
(Housed in the Engineering Technologies Department)

Program Learning Outcomes
1) Generate 3-view drawings and pictorial sketches
2) Interpret fully-dimensioned drawings
3) Design and create their own drawings using AutoCAD software
4) Create a prototype using a 3D printer
5) Demonstrate competence in material selection and design optimization techniques necessary for today’s modern manufacturing and assembly processes
6) Apply Computer Aided Design tools to analyze the functional parameters of parts and assemblies.
7) Communicate ideas in a graphical format with the understanding and use of a 2D and 3D CAD program (AutoCAD)
8) Create 3D models that emphasize important design principles, which may include: design intent, proper dimensioning, tolerancing, multiple configurations and relations with proper 2D orthographic projections

Requirements for Program Entrance
High school graduate or high school equivalency diploma, Elementary Algebra with Geometry or MTH 098 at MCC.

Distribution Requirements

FIRST SEMESTER: 12 Credit Hours

ENG 153 English Composition I ........................................................................ 3
ENG 101 Technical Writing ................................................................................ 3
MTH 104 Intermediate Algebra ........................................................................ 4
COM 150 Technical Communication .................................................................. 3
MTH 105 Technical Mathematics .................................................................... 4

Total 15

SECOND SEMESTER: 10 Credit Hours

ENG 200 Advanced Composition ................................................................... 3
ENG 102 Technical Writing ................................................................................ 3
MTH 105 Technical Mathematics .................................................................... 4
COM 270 Media and Society ............................................................................. 3
MTH 106 Technical Statistics .......................................................................... 3

Total 15

TOTAL CREDITS 25

* Technical Electives include: CIT 112, MET, TAM 151.

COMPUTER INFORMATION SYSTEMS

A.A.S. DEGREE

CIP Code: 11.0201
NYSED Code (BRI): 01227
MCC Program Code: CI01

Description
This program will develop the skills and knowledge needed by students who plan to seek employment as technical support specialists, help desk technicians, and customer service support associates. Students will obtain an understanding of programming, networks and databases as well as basic knowledge of business fundamentals such as accounting, marketing, economics and management. The core courses within this program provide students with a solid base of communication, interpersonal, analytical and problem solving skills.
This program is not designed as a transfer program. Students who plan to transfer to a four-year college to earn their Bachelor’s degree should discuss their plans with an advisor as early as possible to identify the appropriate program.
(Housed in the Business Administration and Economics Department)

Program Learning Outcomes
1. Identify and describe the function and interaction of computer system components.
2. Diagnose and resolve computer system problems.
3. Develop a system proposal to satisfy user requirements, including system customization.
4. Write a computer program using an object-oriented language, which applies structured design and programming principles, and includes comprehensive documentation.
5. Develop a computer program that satisfies user requirements.
6. Communicate ideas, user-specifications, system documentation, and research results in a professional manner, both orally and in writing.
7. Participate as a member of a collaborative team.
8. Assess key ethical issues as they relate to the responsibilities of computing professionals.
9. Use office software applications to solve business problems.
10. Develop queries of relational databases to satisfy users’ needs in a business environment.

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or Math 104 at MCC). Typing or keyboarding recommended.

www.monroecc.edu/go/academicprograms
**FIRST SEMESTER: 14 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 College Composition OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>BUS 104 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 100 Information Processing Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>MTH 165 College Algebra or higher</td>
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<td>PHYSICAL/HEALTH EDUCATION</td>
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**SECOND SEMESTER: 14 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CIS 200 Programming for Information Systems</td>
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<tr>
<td>BUS 220 Applied Business Applications</td>
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</tr>
<tr>
<td>CIS 110 A+ PC Repair and Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHL 105 Technology and Values OR PHL 102 Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
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**THIRD SEMESTER: 16 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACC 101 Accounting Principles I</td>
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<tr>
<td>ACC 110 Fundamentals of Accounting I AND</td>
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<tr>
<td>ACC 111 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 201 Introduction to Web Site Programming and Design</td>
<td>3</td>
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<tr>
<td>CIS 211 Applied Database Concepts</td>
<td>3</td>
</tr>
<tr>
<td>SPC 141 Interpersonal Speech Communication OR</td>
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<tr>
<td>SPC 142 Public Speaking</td>
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<td>NATURAL SCIENCE ELECTIVE**</td>
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**FOURTH SEMESTER: 16 Credit Hours**

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BUS 275 Business Cooperative Education</td>
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<tr>
<td>CIS 209 Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ENG 251 Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE*</td>
<td>3</td>
</tr>
<tr>
<td>MTH 160 Statistics I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**TOTAL CREDITS 60**

* Recommended Social Science Elective: ECO 101, ECO 103, or ECO 111
** Recommended Natural Science Elective: GEG 130

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**COMPUTER INFORMATION SYSTEMS**

**A.S. DEGREE**

**CIP Code:** 11.0401  
**MCC Program Code:** CID2

**NYSED Code (BRI):** 87429

**Description**

Information systems professionals play a key and vital role in the management and growth of an organization. They are the creative problem-solving innovators who define the information and technology needs to help businesses in virtually any field achieve their goals and objectives.

The Computer Information Systems program includes courses in technology and business to prepare students for transfer to a Bachelor degree program. Programs in this academic discipline go by a wide variety of names such as computer information systems, management information systems, information systems, information technology, and information management.

The CIS curriculum is based on recommendations of professional computing associations and includes courses in information systems fundamentals, computer programming, database design, systems analysis and design, accounting, management, economics, and marketing. Students also develop their communication, collaboration, analytical, and problem solving skills.

(Housed in the Business Administration and Economics Department)

**Program Learning Outcomes**

1. Describe a computer system.
2. Diagnose and resolve computer system problems.
3. Demonstrate the ability to communicate in a professional manner.
4. Prepare for conducting independent research in the field.
5. Capable of designing and implementing object oriented programs from user specifications.
6. Capable of designing and implementing structed programs from user specifications.
7. Capable of designing and implementing business oriented programs from user specifications.
8. Demonstrate their knowledge of business functional departments in the development of a system proposal to satisfy user requirements.

**Requirements for Program Entrance**

Intermediate Algebra with Trigonometry (or Math 104 at MCC). Typing or keyboarding recommended.

**Distribution Requirements**

**FIRST SEMESTER: 17 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 College Composition OR</td>
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<tr>
<td>ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>CIS 100 Information Processing Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>BUS 104 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ACC 101 Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 165 College Algebra or higher</td>
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**SECOND SEMESTER: 15 Credit Hours**

<table>
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<tr>
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<tbody>
<tr>
<td>CIS 200 Programming for Information Systems</td>
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<tr>
<td>ECO 111 Principles of Microeconomics</td>
<td>3</td>
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<tr>
<td>ACC 102 Accounting Principles II</td>
<td>4</td>
</tr>
<tr>
<td>LITERATURE ELECTIVE OR</td>
<td></td>
</tr>
<tr>
<td>PHL 105 Technology and Values OR</td>
<td>3</td>
</tr>
<tr>
<td>PHL 102 Introduction to Logic</td>
<td>3</td>
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<tr>
<td>HEALTH/PHYSICAL EDUCATION</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
Third Semester: 16 Credit Hours

- CIS 211 Applied Database Concepts .................................................. 3
- MTH 160 Statistics I ................................................................. 3
- ECO 112 Principles of Macroeconomics ................................................. 3
- ENG 250 Professional Communication OR ENG 251 Technical Communication .................................................. 3
- SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ........................................ 3
- CIVILIZATIONS, WESTERN CIVILIZATIONS .................................................. 3
- HEALTH/PHYSICAL EDUCATION .................................................. 1

Total 16

Fourth Semester: 15 Credit Hours

- CIS 209 Systems Analysis and Design .................................................. 3
- BUS 204 Management Theory and Practice OR BUS 208 Organizational Behavior .................................................. 3
- PROGRAM ELECTIVE** .................................................. 3
- SUNY GENERAL EDUCATION ELECTIVE*** .................................................. 3
- SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ........................................ 3

Total 15

Total Credits 63

* Recommended Natural Science Electives: BIO 116, BIO 120, CHE 110, GEO 105 & 115, GEG 130, PHY 120 & 121.
** Program Elective: BUS 220, CIS 201, MTH 161
*** Choose a SUNY General Elective from any area.

** Recommended Natural Science Electives: BIO 116, BIO 120, CHE 110, GEO 105 & 115, GEG 130, PHY 120 & 121.
** Program Elective: BUS 220, CIS 201, MTH 161
*** Choose a SUNY General Elective from any area.

Third Semester: 17 Credit Hours

- MTH 160 Statistics I ** .................................................. 3-4
- SUNY GENERAL EDUCATION NATURAL SCIENCES ELECTIVE ........................................ 3
- CSC 202 Programming Embedded Microcontrollers in C and Assembly .................................................. 4
- CSC 206 Digital Computer Organization .................................................. 3
- SUNY GENERAL EDUCATION WESTERN CIVILIZATIONS OR OTHER WORLD CIVILIZATIONS ........................................ 3

Total 17

Fourth Semester: 13-14 Credit Hours

- ENG 251 Technical Writing OR MTH 230 Linear Algebra* .................................................. 3-4
- MTH 220 Discrete Mathematics .................................................. 3
- NATURAL SCIENCE ELECTIVE .................................................. 3
- COMPUTER SCIENCE ELECTIVE .................................................. 3
- PHYSICAL/HEALTH EDUCATION .................................................. 1

Total 13-14

Total Credits 62-64

* Required for students transferring to the Rochester Institute of Technology
** Required for students transferring to SUNY College at Brockport

NOTES: For any elective, consideration should be given to the requirements of the four-year institution to which the student plans to transfer.
COMPUTER SYSTEMS TECHNOLOGY

CIP Code: 15.1202
NYSED Code (BRI): 85385

**Description**
This program is designed with the 21st century technician in mind, providing students with the skills necessary to work with state-of-the-art embedded systems that include mobile and remote sensing devices. All of the core courses in the curriculum have practical laboratory components that provide students with hands-on experience utilizing essential diagnostic hardware and software development tools. The curriculum focuses on building critical thinking and problem solving skills with an emphasis on practical applications. Flexible elective options in Math, Science and Computer Systems allow the student to fine tune their skills in the areas of networking, programming, or systems design and integration to suit their particular background and future needs. This added flexibility provides students with the option to continue their education and obtain an AS degree with transfer options in Computer Science or Computer Engineering within an additional semester or two of study. (Housed in the Information and Computer Technologies Department)

**Program Learning Outcomes**
1. Apply knowledge of computing and mathematics appropriate to the discipline.
2. Analyze a problem critically, and then identify and define the computing requirement appropriate to its solution.
3. Solve problems (programming, networking) utilizing characteristic diagnostic tools.
4. Function effectively on teams to accomplish a common goal.
5. Demonstrate effective communication skills (oral, written) with a range of audiences.
6. Demonstrate strong programming skills (write, debug, test computer programs).
7. Sustain (setup, maintain, and evaluate) network environments.
8. Identify and analyze user needs and take them into account in the selection, creation, evaluation or administration of computer-based systems.
9. Create (design, program and implement) an embedded autonomous control system.
10. Operate effectively (work with, setup, or evaluate) both basic analog and digital electronic test equipment.
11. Assist in the creation of an effective project plan.
12. Integrate hardware/software based solutions into the user environment effectively.

**Requirements for Program Entrance**
Intermediate Algebra with Trigonometry (or Math 104 at MCC). Typing or keyboarding recommended.

**Distribution Requirements**

<table>
<thead>
<tr>
<th>FIRST SEMESTER: 15 Credit Hours</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 101 College Composition OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 200 Advanced Composition OR</td>
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</tr>
<tr>
<td>CPT 114 Problem Solving and Robotics</td>
<td>3</td>
</tr>
<tr>
<td>CPT 115 Introduction to Networks</td>
<td>3</td>
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<tr>
<td>SOCIAL SCIENCE ELECTIVE*</td>
<td>3</td>
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<tr>
<td>MATHEMATICS ELECTIVE*</td>
<td>3</td>
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<tr>
<td><strong>Total 15</strong></td>
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<table>
<thead>
<tr>
<th>SECOND SEMESTER: 15 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 101 Python Programming</td>
</tr>
<tr>
<td>COMPUTER SYSTEMS ELECTIVE**</td>
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<tr>
<td>ENR 157 Digital Electronics and Microcontrollers</td>
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<tr>
<td>MATHEMATICS ELECTIVE*</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td><strong>Total 15</strong></td>
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<table>
<thead>
<tr>
<th>THIRD SEMESTER: 16 Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>CSC 202 Programming Embedded Microcontrollers in C and Assembly</td>
</tr>
<tr>
<td>CPT 211 Android App Design for Mobile Devices</td>
</tr>
<tr>
<td>ENR 157 Digital Electronics and Microcontrollers</td>
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<td>COMPUTER SYSTEMS ELECTIVE**</td>
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<table>
<thead>
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<th>FOURTH SEMESTER: 17 Credit Hours</th>
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<tbody>
<tr>
<td>CPT 210 Operating Systems and Peripherals</td>
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<tr>
<td>CPT 212 Wireless and Remote Sensor Technology</td>
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<tr>
<td>MSC 251 Technical Communications</td>
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<td>COMPUTER SYSTEMS ELECTIVE***</td>
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<tr>
<td>COMPUTER SYSTEMS CAPSTONE ELECTIVE***</td>
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<tr>
<td>NATURAL SCIENCE ELECTIVE</td>
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<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td><strong>Total 17</strong></td>
</tr>
</tbody>
</table>

**TOTAL CREDITS 63**

* Mathematics Electives: MTH 160, MTH 165, MTH 172, MTH 175, MTH 210, MTH 211, MTH 220
** Computer Systems Electives:
- Networking Skills Options: CPT 215, CPT 216, CPT 217, CPT 218
- Programming Skills Options: CIS 200, CIS 101, CIS 223, CIS 225
- Specialized Skills Options: CSC 214, CSC 215
*** Computer Systems Capstone Electives:
- ENR 259 Engineering Design Lab OR CPT 213 Computer Systems Design Lab

CONSTRUCTION TECHNOLOGY

CIP Code: 15.1001
NYSED Code (BRI): 91113

**Description**
Graduates of Construction Technology will be part of a team responsible for the coordination and implementation of construction projects. Some of the duties performed would include cost estimating, project management, and project scheduling. This specialization combines these courses with knowledge of core technical courses such as elementary structures, soils, concrete, and surveying; and integrates them with their applications in the construction of buildings, roads and other projects. (Housed in the Engineering Technologies Department)

**Program Learning Outcomes**
1) Perform necessary surveys for construction site layout
2) Interpret construction drawings and perform quantity surveys and estimates
3) Plan, schedule and coordinate residential, commercial or heavy construction projects
4) Update drawings for a residential, commercial or heavy construction projects
5) Interpret and apply appropriate building and structural codes
6) Perform shop and field calculations
7) Perform basic computer applications required for basic construction management
8) Prepare and interpret materials technical and general specifications
9) Apply construction management principles to a construction project
10) Select appropriate construction equipment and production control techniques for site work
11) Perform fundamental design calculations based on building, scaffolding, concrete form, or shoring loads
12) Communicate the technical requirements of a construction project to all parties involved in the construction process
13) Plan and implement a construction safety program

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or Math 104 at MCC).

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
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<tr>
<td>FIRST SEMESTER: 16 Credit Hours</td>
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<tr>
<td>CIT 101 Surveying</td>
<td>4</td>
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<tr>
<td>CIT 122 Construction I: Elements of Building Construction</td>
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<td>ENG 200 Advanced Composition</td>
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<tr>
<td>MTH 140 Technical Mathematics I</td>
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<td>TEK 101 Computer Applications for Technicians</td>
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<td><strong>SECOND SEMESTER: 16-17 Credit Hours</strong></td>
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<tr>
<td>CIT 123 Construction II: Heavy, Highway and Site Construction</td>
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<tr>
<td>MET 203 Technical Mechanics Statics</td>
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<td>PHY 131 Applied Physics I</td>
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<td><strong>THIRD SEMESTER: 15-16 Credit Hours</strong></td>
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<tr>
<td>CIT 112 CAD for Construction</td>
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<td>CIT 206 Soil and Concrete Testing</td>
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<td>ENG 250 Professional Communication OR</td>
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<td>ENG 251 Technical Writing</td>
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<tr>
<td><strong>FOURTH SEMESTER: 15 Credit Hours</strong></td>
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<tr>
<td>CIT 204 Strength of Materials</td>
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<tr>
<td>CIT 217 Construction Management</td>
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<td>CIT 221 Construction Cost Estimating</td>
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<td>CIT 232 Construction Contracts and Specifications</td>
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<tr>
<td><strong>TOTAL CREDITS 62-64</strong></td>
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**CRIMINAL JUSTICE**

**A.S. DEGREE**

<table>
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<tbody>
<tr>
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<td>CJ01</td>
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**NYSED Code (DCC):**
84495

**Description**
This is the preferred program for students who are planning to pursue careers as a federal law enforcement agent, lawyer, probation officer, parole officer, public safety planner, legal researcher, or paralegal.
Graduates who meet certain physical and moral standards may qualify for positions at the federal, state, county, and municipal levels.
The program provides the opportunity for preparation in the law process and science of criminal justice. This program includes an internship component.
Readmitted students who have not attended for 3 years (6 semesters) will be readmitted under the current program requirements.
(Housed in the Law and Criminal Justice Department)

**Program Learning Outcomes**
1) Describe the structure and functions of the law enforcement component of the criminal justice system.
2) Describe the structure and functions of the courts component of the criminal justice system.
3) Describe the structure and functions of the corrections component of the criminal justice system.
4) Explain the interactions of law enforcement courts corrections and the community in addressing crime in society.
5) Explain core principles of law and justice as they apply to the roles of citizen and criminal justice professional.
6) Apply the appropriate principles of law and justice to situations that are encountered in the criminal justice professions.
7) Identify appropriate responses to ethical issues encountered in the criminal justice professions.
8) Identity criminal justice career options and their required qualifications.
9) Develop career-related competencies through workplace experience.

**Requirements for Program Entrance**
Intermediate Algebra with Trigonometry (or Math 104 at MCC) or MCC level 8 Mathematics placement.

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST SEMESTER: 16 Credit Hours</td>
<td></td>
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<tr>
<td>ENG 101 College Composition OR</td>
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<tr>
<td>ENG 200 Advanced Composition</td>
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<tr>
<td>SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE</td>
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<td>POS 102 American National Government</td>
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<td>CRJ 101 Introduction to Criminal Justice</td>
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<td>CRJ 103 Constitutional Law and Rights of People</td>
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<td><strong>Total 16</strong></td>
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<tr>
<td><strong>SECOND SEMESTER: 17 Credit Hours</strong></td>
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<tr>
<td>PSY 101 Introductory Psychology</td>
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<td>HUMANITIES ELECTIVE</td>
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<td>CRJ 104 Criminal Law</td>
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<td>CRJ 204 Juvenile Justice</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td><strong>Total 17</strong></td>
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</tr>
</tbody>
</table>

www.monroecc.edu/go/academicprograms
THIRD SEMESTER: 16 Credit Hours
SOC 101 Introduction to Sociology ................................................. 3
MTH 160 Statistics I ........................................................................ 3
CRIMINAL JUSTICE ELECTIVE+ .................................................... 3
NATURAL SCIENCE ELECTIVE ...................................................... 3
TOTAL CREDITS 16

FOURTH SEMESTER: 15 Credit Hours
SOC 203 Criminology ........................................................................ 3
CRJ 211 Community Values and the Administration of Justice ............ 3
CRJ 121 Criminal Justice Education Internship I ............................... 3
CRIMINAL JUSTICE ELECTIVE+ .................................................... 3
ELECTIVE ........................................................................................................ 3
TOTAL CREDITS 15

TOTAL CREDITS 64


NOTE TO STUDENTS: NOTE TO STUDENTS: Students with a TRS 200 placement must register for the CRJ Learning Community: CRJ 101, CRJ 103, TRS 200 and COS 101 if not previously taken. Students with a TRS 105 placement must register for the CRJ Learning Community: CRJ 101, CRJ 103, TRS 105 and COS 101 if not previously completed.

CRIMINAL JUSTICE: LAW ENFORCEMENT
CERTIFICATE PROGRAM

Description
See LAW ENFORCEMENT

CRIMINAL JUSTICE: INSTITUTIONAL CORRECTIONS
A.A.S. DEGREE

CIP Code: 43.0102
MCC Program Code: CJ02
NYSED Code (DCC): 87442

Description
The Institutional Corrections option of the Criminal Justice Program is designed to meet the needs of individuals interested in pursuing a career in corrections. It emphasizes correctional theory, law and procedure, as well as applied social and behavioral science. Graduates may qualify for employment at federal, state, and county correctional facilities as correctional officers or supervisors, provided they meet standard physical and moral standards. These positions may also require graduates to pass a qualifying civil service exam for employment. This program includes an internship component.

Readmitted students who have not attended for 3 years (6 semesters) will be readmitted under the current program requirements. (Housed in the Law and Criminal Justice Department)

Program Learning Outcomes
1) Describe the structure and functions of the law enforcement component of the criminal justice system.
2) Describe the structure and functions of the courts component of the criminal justice system.
3) Describe the structure and functions of the corrections component of the criminal justice system.
4) Explain post-conviction options in the corrections system.
5) Explain the impact of various correctional philosophies in the corrections system.
6) Explain the interactions of law enforcement courts corrections and the community in addressing crime in society.
7) Explain core principles of law and justice as they apply to the roles of citizen and criminal justice professional.
8) Apply the appropriate principles of law and justice to situations that are encountered in the criminal justice professions.
9) Identify appropriate responses to ethical issues encountered in the criminal justice professions.
10) Identify criminal justice career options and their required qualifications.
11) Develop career-related competencies through workplace experience.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

Credit Hours
FIRST SEMESTER: 15 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
NATURAL SCIENCE ELECTIVE ...................................................... 3
POS 102 American National Government .................................................................................. 3
CRJ 101 Introduction to Criminal Justice .................................................................................. 3
CRJ 103 Constitutional Law and Rights of People ...................................................................... 3
TOTAL CREDITS 15

SECOND SEMESTER: 17 Credit Hours
PSY 100 Psychology of Interpersonal Relationships OR PSY 101 Introductory Psychology*** ...................................................... 3
LITERATURE ELECTIVE* .............................................................................. 3
CRJ 104 Criminal Law .................................................................................. 3
CRJ 170 Introduction to Corrections ..................................................................................... 3
CRJ 204 Juvenile Justice .................................................................................. 3
PHYSICAL/HEALTH EDUCATION .............................................................. 2
TOTAL CREDITS 17

THIRD SEMESTER: 15 Credit Hours
MTH 130 Modern Business Mathematics (or higher)**** ...................................................... 3
HUMANITIES ELECTIVE** ........................................................................ 3
SOC 101 Introduction to Sociology ..................................................................................... 3
CRIMINAL JUSTICE ELECTIVE+ .............................................................................. 3
CRJ 171 Legal Aspects of Corrections OR CRJ 217 Community Based Corrections .................. 3
TOTAL CREDITS 15

FOURTH SEMESTER: 15 Credit Hours
SOC 203 Criminology ............................................................................ 3
CRJ 211 Community Values and the Administration of Justice ......................... 3
CRJ 121 Criminal Justice Education Internship I ..................................................... 3
CRIMINAL JUSTICE ELECTIVE+ .............................................................................. 3
ELECTIVE ........................................................................................................ 3
TOTAL CREDITS 15

TOTAL CREDITS 62

* ENG 105 recommended.
** SPC 141 or SPC 144 highly recommended.
*** PSY 101 highly recommended if student intends to transfer to a four-year college.
**** MTH 180 highly recommended (note prerequisites).
++ CRJ 102, 105, 171, 172; 201, 203, 207, 209, 217; LAW 101, 110.
+++ PEL 101 highly recommended for corrections officer careers; PEC 148 recommended for others.
NOTE TO STUDENTS: Students with a TRS 200 placement must register for a CRJ Learning Community: CRJ 101, CRJ 103, TRS 200 and COS 101 if not previously taken. Students with a TRS 105 placement must register for the CRJ Learning Community: CRJ 101, CRJ 103, TRS 105 and COS 101 if not previously completed.

CRIMINAL JUSTICE: POLICE
A.A.S. Degree

CIP Code: 43.0107
NYSED Code (DCC): 01253

Description
The Police option of the Criminal Justice program is designed to meet the needs of state, county and municipal law enforcement agencies, as well as those of selected federal departments. It emphasizes the skills, knowledge, and attitudes needed to be an effective professional law enforcement agent in a democratic society.

The program provides the opportunity for preparation in the law process and science of criminal justice. This program includes an internship component. Graduates who meet certain physical and moral standards may qualify for positions at the federal, state, county, and municipal level. Graduates may also be required to pass a qualifying civil service exam for employment.

Readmitted students who have not attended for 3 years (6 semesters) will be readmitted under the current program requirements.

(Housed in the Law and Criminal Justice Department)

Program Learning Outcomes
1) Describe the structure and functions of the law enforcement component of the criminal justice system.
2) Describe the structure and functions of the courts component of the criminal justice system.
3) Describe the structure and functions of the corrections component of the criminal justice system.
4) Explain the interactions of law enforcement courts corrections and the community in addressing crime in society.
5) Explain core principles of law and justice as they apply to the roles of citizen and criminal justice professional.
6) Apply the appropriate principles of law and justice to situations that are encountered in the criminal justice professions.
7) Identify appropriate responses to ethical issues encountered in the criminal justice professions.
8) Discuss principles related to the acquisition preservation and presentation of evidence in a criminal case.
9) Identify criminal justice career options and their required qualifications.
10) Develop career-related competencies through workplace experience.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

FIRST SEMESTER: 15-16 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition ..................................................... 3
NATURAL SCIENCE ELECTIVE ......................................................................................................... 3-4
POS 102 American National Government .................................................................................. 3
CRJ 101 Introduction to Criminal Justice ..................................................................................... 3
CRJ 103 Constitutional Law and Rights of People ...................................................................... 3

Total 15-16

SECOND SEMESTER: 17 Credit Hours

PSY 100 Psychology of Interpersonal Relationships OR
PSY 101 Introductory Psychology .................................................................................................. 3
LITERATURE ELECTIVE* ............................................................................................................... 3
CRJ 104 Criminal Law .................................................................................................................. 3
CRJ 201 Criminal Investigations OR CRJ 209 Forensic Science I .................................................. 3
CRJ 204 Juvenile Justice .............................................................................................................. 3
PEJ 101 PHYSICAL FITNESS I - CRIMINAL JUSTICE .................................................................. 2

Total 17

THIRD SEMESTER: 15 Credit Hours

MTH 130 Modern Business Mathematics+ (or higher) ................................................................. 3
SOC 101 Introduction to Sociology ................................................................................................ 3
HUMANITIES ELECTIVE** ........................................................................................................... 3
CRJ 207 Criminal Evidence .......................................................................................................... 3
CRIMINAL JUSTICE ELECTIVE++ ................................................................................................. 3

Total 15

FOURTH SEMESTER: 15-16 Credit Hours

SOC 203 Criminology .................................................................................................................. 3
CRJ 211 Community Values and the Administration of Justice ....................................................... 3
CRIMINAL JUSTICE ELECTIVE++ ................................................................................................. 3
ELECTIVE ......................................................................................................................................... 3-4
CRJ 121 Criminal Justice Education Internship I .......................................................................... 3

Total 15-16

TOTAL CREDITS 62-64

* ENG 105 recommended
** SPC 141 or SPC 144 highly recommended
*** PSY 101 highly recommended if student intends to transfer to a four-year college
+ MTH 160 highly recommended if student intends to transfer to a four-year college (note prerequisites)
++ CRJ 102, 105, 170, 171, 172, 201, 203, 209, 217, LAW 101, 110

NOTE TO STUDENTS:
Students with a TRS 200 placement must register for a CRJ Learning Community: CRJ 101, CRJ 103, TRS 200 and COS 101 if not previously taken. Students with a TRS 105 placement must register for the CRJ Learning Community: CRJ 101, CRJ 103, TRS 105 and COS 101 if not previously completed.
CULINARY ARTS
CERTIFICATE PROGRAM

CIP Code: 12.0905
NYSED Code (BRI): 01246
MCC Program Code: HM09

Description
The Culinary Arts Certificate program is for the student who is primarily interested in a Culinary Arts concentration without the broad liberal arts background. A graduate of the Culinary Arts Certificate program will have established a basis for a career in the food service industry, and will qualify for a position as an entry-level culinary professional in a commercial or institutional food service operation.

(Housed in the Hospitality Department)

Program Learning Outcomes
1) Demonstrate the ability to apply proper food handling techniques.
2) Assess different cooking techniques and predict their outcome.
3) Discuss current trends in the food service industry from a menu planning perspective.
4) Assess the factors that influence healthy food choices throughout the lifecycle.
5) Demonstrate the basic fundamentals of cooking in a professional kitchen.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements
FIRST SEMESTER: 16 Credit Hours
FSA 103 Culinary Arts I: Fundamentals of Food Preparation ...........................................5
FSA 106 Food Safety and Sanitation ..................................................................................1
FSA 107 Menu Planning ..................................................................................................3
HSP 102 Hospitality Service ............................................................................................4
FOOD SERVICE ADMINISTRATION ELECTIVE* ................................................................3

Total 16

SECOND SEMESTER: 16 Credit Hours
FSA 117 Basic Consumer Nutrition ..................................................................................3
FSA 203 Culinary Arts II: Advanced Food Production ....................................................5
CE 260 Cooperative Education-Hospitality Management* ...........................................4
FOOD SERVICE ADMINISTRATION ELECTIVE** ....................................................3

Total 15

TOTAL CREDITS 31

* CE 260 can be taken during the summer
** Food Service Administration Elective Options: FSA 108, FSA 110, FSA 111, FSA 205, FSA 207, FSA 208, FSA 209.

NOTE: Please see the Hospitality Management A.A.S. Degree - Food Service and Culinary Arts, for a degree option to the Certificate program.

CYBERSECURITY CERTIFICATE
CERTIFICATE PROGRAM

CIP Code: 11.1003
NYSED Code (BRI): 36395
MCC Program Code: CV02

Description
This program provides students with comprehensive knowledge and training in the implementation and management of the security measures required to protect computer resources from unauthorized access or attack. In particular, this program is designed to provide students with the technical expertise needed to protect enterprise information and computing assets connected to the Internet. Classroom work provides students with extensive hands-on experience and training using state-of-the-art security tools and techniques. This certificate is designed to meet the needs of Information Technology practitioners, law enforcement personnel, and anyone else interested in developing a solid foundation in Cybersecurity.

Although a basic understanding of computers is expected, this program is designed for students with no previous experience in Cybersecurity. Several of the courses in the certificate parallel the training developed by the SysAdmin, Audit, Network, and Security (SANS) Institute and can be used to help prepare students to sit for the Global Information Assurance Certification (GIAC) examinations.

(Housed in the Information and Computer Technologies Department)

Program Learning Outcomes
1) Identify security risks to computing resources.
2) Assess potential threats to computing resources.
3) Develop effective countermeasures aimed at protecting data.
4) Develop effective countermeasures aimed at protecting computer assets.

Requirements for Program Entrance
High school graduate or high school equivalency diploma. Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements
FIRST SEMESTER: 16 Credit Hours
CPT 120 Introduction to Cybersecurity ...........................................................................4
CSC 215 Introduction to Linux ..........................................................................................3
CPT 115 Introduction to Networks ....................................................................................3
SCR 211 Computer Security I ...........................................................................................3
CRC 133 Cloud Computing Design and Implementation ..................................................3

Total 16

SECOND SEMESTER: 17 Credit Hours
CPT 220 Applied Security Concepts ..............................................................................4
SCR 212 Computer Security II OR CRC 132 A Global Perspective on Mobile and Cloud Computing ............................................................................................................3
CPT 125 Physical Security ...............................................................................................3
CPT 225 Network Perimeter Security ................................................................................4
CRC 230 Cloud Security ...................................................................................................3

Total 17

TOTAL CREDITS 33
Program Learning Outcomes

1) providing patient education
2) taking preliminary medical histories and vital signs to be reviewed by the dentist
3) place and remove rubber dams
4) select and prefit provisional crowns
5) select and prefit orthodontic bands
6) remove orthodontic arch wires and ligature ties
7) place and remove matrix bands
8) take impressions for study casts or diagnostic casts
9) remove periodontal dressings
10) remove sutures placed by a licensed dentist
11) take impressions for space maintainers, orthodontic appliances, and occlusal guards
12) remove temporary cement
13) apply topical anticariogenic agents to the teeth
14) apply desensitizing agents to the teeth
15) place and remove temporary separating devices
16) place orthodontic ligatures
17) take dental x-rays in accordance with Public Health Law
18) perform such other dental supportive services authorized by the dentist and consistent with New York State laws, rules and regulations.

Current MCC Dental Assisting students who apply for admission into the hygiene program, students will be required to audit DEN 121.

Currently enrolled MCC Dental Assisting students who apply for admission into the Dental Hygiene Program for the following year after completing the Dental Assisting program will be given quality points for the Dental Hygiene courses they complete by January 31, in addition to the quality points that are calculated using the same courses as regular admission into Hygiene. Admission using this pathway will be contingent on successful completion of all courses in the previous level. A student who has been previously enrolled in Dental Studies and earned a grade below passing as described in the note below or a W in the course will not be eligible for admission/re-admission to Dental Studies, unless there are documented extenuating circumstances that warrant consideration. A student who believes that there is an extenuating circumstance should speak with an advisor in the Admissions Office or the Advisement Center.

No student may progress to the next Dental Studies course level without successful completion of all courses in the previous level. A student who has been previously enrolled in Dental Studies and earned a grade below passing as described in the note below or a W in the course will not be eligible for admission/re-admission to Dental Studies, unless there are documented extenuating circumstances that warrant consideration. A student who believes that there is an extenuating circumstance should speak with an advisor in the Admissions Office or the Advisement Center.

Re-admission of students after an unsuccessful attempt requires permission of the Department and is always on a space-available status. Such an appeal may be made only one time. Dental Studies is a high-demand, competitive program, therefore, re-admission to the Dental Studies program is rare. Any student who is re-admitted to the Dental Studies program and fails to achieve a passing grade (as outlined for that program) a second time is ineligible to continue in the Dental Studies program. Admission/re-admission is always on a space-available basis.

Currently enrolled MCC Dental Assisting students who apply for admission into the Dental Hygiene Program for the following year after completing the Dental Assisting program will be given quality points for the Dental Hygiene courses they complete by January 31, in addition to the quality points that are calculated using the same courses as regular admission into Hygiene. Admission using this pathway will be contingent on successfully completing the Dental Assisting program. In addition, those Dental Assisting students who wish to be considered for Dental Hygiene will need to meet the algebra, chemistry, and biology prerequisites by the application deadline of January 31. To practice in New York State, MCC Dental Assisting students must take the Dental Assisting National Board examination after graduation. (Housed in the Health Professions Department)

Requirements for Program Entrance

- Completed physical examination. High school graduate or high school equivalency diploma. CPR Certification.
- The online option is for currently employed Dental Assistants with a sponsoring dentist.
- Distribution Requirements Credit Hours

- FALL SEMESTER: 17-18 Credit Hours
  - DEN 111 Dental Radiography I .......................................................... 2
  - DEN 112 Oral Anatomy and Physiology I ......................................... 1
  - DEN 113 Barrier Precautions and Infection Control Measures .......... 2
  - DEN 211 Dental Materials ................................................................. 2
  - DAS 110 Preclinical Dental Assisting ............................................... 4
  - BIOLOGY ELECTIVE* ................................................................... 3-4
  - ENG 101 College Composition OR
  - ENG 200 Advanced Composition ..................................................... 3

- Total 17-18

- VARIOUS LENGTH - INTERSESSION/SPRING SEMESTER: 1 Credit Hour
  - DAS 115 Orientation to Clinical Dental Assisting Practice ............... 1

- Total 1

- SPRING SEMESTER: 14 Credit Hours
  - DAS 120 Clinical Dental Assisting Practice ................................... 4
  - DAS 122 Advanced Biomedical Sciences for Dental Assisting Practice 2
  - DEN 212 Dental Radiography II** ................................................. 2
  - DAS 227 Dental Specialties Procedures ........................................... 2
  - DEN 228 Dental Office Management .............................................. 1
  - SPC 144 Communication and Crisis ............................................... 3

- Total 14

- TOTAL CREDITS 32-33

* Required Biology courses include: BIO 133, 134, or 142, or their equivalent.
** Students will need to recruit patients to meet requirements.
DENTAL ASSISTING RAPID TRACK - D.A.R.T.

CIP Code: 51.0601
NYSED Code (BRI): DA03

Program Learning Outcomes
1) providing patient education
2) taking preliminary medical histories and vital signs to be reviewed by the dentist
3) place and remove rubber dams
4) select and prefit provisional crowns
5) select and prefit orthodontic bands
6) remove orthodontic arch wires and ligature ties
7) place and remove matrix bands
8) take impressions for study casts or diagnostic casts
9) remove periodontal dressings
10) remove sutures placed by a licensed dentist
11) take impressions for space maintainers, orthodontic appliances, and occlusal guards
12) remove temporary cement
13) apply topical anticariogenic agents to the teeth
14) apply desensitizing agents to the teeth
15) place and remove temporary separating devices
16) place orthodontic ligatures
17) take dental x-rays in accordance with Public Health Law
18) perform such other dental supportive services authorized by the dentist and consistent with New York State laws, rules and regulations.

Distribution Requirements
Credit Hours

FALL SEMESTER: 7 Credit Hours
DAS 110 Preclinical Dental Assisting ................................................................. 4
DEN 111 Dental Radiography I ................................................................. 2
DEN 113 Barrier Precautions and Infection Control Measures .................. 1
Total 7

SPRING SEMESTER: 8 Credit Hours
DAS 117 Biomedical Foundations for Dental Assisting Practice .................. 3
DAS 121 Dental Assisting Clinical Experience ........................................ 1*
DAS 227 Dental Specialties Procedures ................................................. 2
DEN 211 Dental Materials ....................................................................... 2
Total 8

TOTAL CREDITS 15
TOTAL EQUIVALENT CREDITS 24*

NOTE TO STUDENTS: To remain in the program students must receive a grade of C or better in all courses prefixed DAS and a grade of C- in all courses prefixed DEN.

(Housed in the Health Professions Department)

DENTAL HYGIENE

A.A.S. DEGREE

CIP Code: 51.0602
NYSED Code (BRI): DH01

Program Learning Outcomes
1) Apply a professional code of ethics in all endeavors using the highest professional knowledge and ethical principles within the context of the New York State Dental Hygiene Practice Act
2) Collect analyze and record data on the general oral and health status of patients using methods consistent with medical and legal principles.

(Founded in the Health Professions Department)

* Equivalent credit hours = 10 credits.

NOTE TO STUDENTS: To remain in the program students must receive a grade of C or better in all courses prefixed DAS and a grade of C- in all courses prefixed DEN. An option exists to “place out” of certain courses. Inquire with the program director in regard to this option.
3) Use decision-making skills to determine the patient’s needs related to his/her oral health and overall health based on all available data.
4) Provide individualized care (and will be prepared to manage medical emergencies) that include accepted infection control procedures and appropriate education preventive therapeutic and referral services to assist the patient in achieving and maintaining optimal oral health.
5) Evaluate the effectiveness of educational preventive therapeutic and referral services and modify those services if necessary to assist the client in achieving and maintaining optimal health
6) Assess plan implement and evaluate community-based oral health programs to a diverse population including health promotion and disease prevention activities.
7) Analyze scientific literature and use an evidence-based approach to patient care
8) Support the profession of dental hygiene through participation and affiliation with professional and community organizations

Requirements for Program Entrance
High school Algebra or MTH 098 at MCC with a grade of C or better. Biology and Chemistry with a grade of C or better.

Competitive Admission — Please contact the Admissions Office regarding current admission criteria and/or geographic limitations.

Distribution Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>FIRST SEMESTER*: 17-18 Credit Hours</td>
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<tr>
<td>BIO 134 Human Anatomy and Physiology I OR</td>
<td>3-4</td>
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<td>BIO 142 Human Anatomy</td>
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<tr>
<td>DEN 110 Dental Health Education</td>
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<td>DEN 111 Dental Radiography I</td>
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<tr>
<td>DEN 122 Oral Anatomy and Physiology II</td>
<td>2</td>
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<td>DEN 112 Oral Anatomy and Physiology I</td>
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<tr>
<td>DEN 123 Oral Pathology I</td>
<td>1</td>
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<tr>
<td>DEN 114 Dental Hygiene I</td>
<td>2</td>
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<tr>
<td>DEN 115 Clinical Dental Hygiene I</td>
<td>2</td>
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<tr>
<td>ENG 101 College Composition OR</td>
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<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td>Total 17-18</td>
<td></td>
</tr>
</tbody>
</table>

| SECOND SEMESTER*: 21-22 Credit Hours      |              |
| BIO 135 Anatomy and Physiology II OR      | 3-4          |
| BIO 143 Human Physiology                  |              |
| BIO 202 Microbiology                      | 4            |
| DEN 121 Dental Radiography II**           | 2            |
| DEN 122 Oral Anatomy and Physiology II     | 2            |
| DEN 123 Oral Pathology I                  | 1            |
| DEN 124 Dental Hygiene II                 | 1            |
| DEN 125 Clinical Dental Hygiene II**       | 4            |
| DEN 129 Periodontics I                    | 1            |
| MTH 150 Survey of Mathematics or higher   | 3            |
| Total 21-22                               |              |

| THIRD SEMESTER*: 19 Credit Hours          |              |
| BIO 217 Nutrition                         | 3            |
| DEN 211 Dental Materials                  | 2            |
| DEN 212 Community Dentistry I             | 1            |
| DEN 213 Oral Pathology II                 | 1            |
| DEN 214 Dental Hygiene III                | 2            |
| DEN 215 Clinical Dental Hygiene III**      | 4            |
| DEN 216 Dental Therapeutics I             | 1            |
| DEN 217 Dental Specialties                | 1            |
| DEN 219 Periodontics II                   | 1            |
| SPC 141 Interpersonal Communication OR    |              |
| SPC 143 Small Group Communication OR      | 3            |
| SPC 144 Communication and Crisis          |              |
| Total 19                                  |              |

FOURTH SEMESTER*: 16 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DEN 222 Community Dentistry II</td>
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<tr>
<td>DEN 224 Dental Hygiene IV</td>
<td>1</td>
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<tr>
<td>DEN 225 Clinical Dental Hygiene IV**</td>
<td>4</td>
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<tr>
<td>DEN 226 Dental Therapeutics II</td>
<td>1</td>
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<tr>
<td>DEN 228 Dental Office Management/Business Practice</td>
<td>1</td>
</tr>
<tr>
<td>DEN 229 Periodontics III</td>
<td>1</td>
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<tr>
<td>PSY 101 Introductory Psychology</td>
<td>3</td>
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<td>SOC 101 Introduction to Sociology</td>
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<tr>
<td>Total 16</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDITS 73-75

* Completion of all previous semester dental hygiene courses with a grade of C, and passing grades in biology are required for advancement to the next semester. Students may complete BIO courses prior to the sequence listed in the catalog. Students must complete BIO and DEN courses following the semester sequence.

** Enrollment in DEN 121, DEN 125, DEN 215 and DEN 225 is conditional upon satisfactory completion of the medical requirements and clearance from any existing health problem(s). Students are required to recruit patients to meet course requirements.

+ MTH 160 recommended

DESIGN (FASHION): INTERIOR DESIGN

A.A.S. DEGREE

Description
See INTERIOR DESIGN A.A.S. DEGREE

DIRECT DISABILITY SUPPORT SERVICES

CREDIT PROGRAM

<table>
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<th>CIP Code:</th>
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NYSED Code (BRI): 36367
NYSED Code (DCC): 36368

Description
The Certificate Program is designed for individuals who want to learn the skills necessary to work in the field of disabilities and/or who may possess entry level positions in the disability field and want to further their education and training in this area. Certificate holders may go on to earn the A.A.S. Degree in Human Services or the A.S. Degree in Human Services by adding to their program courses appropriately distributed according to the requirements for the degree they are seeking.

Students must be qualified to take ENG 101 in order to register for the HUM 101 and HUM 111.

(Housed in the Human Services Department)

Program Learning Outcomes

1. Describe various contemporary issues in the field of direct disability support services in order to provide support that is responsive to these issues to individuals with disabilities.
2. Identify and discuss community, natural, and systemic support services for people with significant disabilities.
3. Explain the differences in the roles and responsibilities of professionals in disability services systems and describe how care is provided to client/consumers in various care settings.
4. Describe and defend the important role of compliance and regulations in the field of direct disability support services.
5. Employ individualized assessments and develop plans using a person centered approach to determine services needed by consumers.
6. Select and report the necessary information to complete documentation procedures and materials for individuals in various systems of the direct disability support services field.
7. Develop positive behavior support planning for individuals with disabilities that facilitates communication, relationship-building, and independent decision-making in the community.
8. Examine the relationship between his/her own values and behaviors, including professional boundaries, ethics, and confidentiality and analyze how this relationship impacts the support of individuals with disabilities

**Requirements for Program Entrance**
High school graduate or high school equivalency diploma. Placement into ENG 101.

**FIRST SEMESTER: 15 Credit Hours**
- HUM 101 Introduction to Human Services ......................................................... 2
- HUM 111 Fieldwork in Human Services I ............................................................ 3
- HUM 130 Introduction to the Disability Support Services Field ......................... 3
- HUM 135 Roles and Responsibilities in Disability Support Services ................. 3
- HUM 210 Disability Across the Lifespan ............................................................. 3

Total 15

**SECOND SEMESTER: 15 Credit Hours**
- HUM 102 Basic Human Services Skills ............................................................. 4
- HUM 112 Fieldwork in Human Services II ......................................................... 2
- HUM 230 Individualized Planning and Documentation for Disability Support Services 3
- HUM 235 Supporting and Communicating with People with Significant Disabilities .... 3
- HUM 236 Contemporary Issues in the Field of Disability Support Services .......... 3

Total 15

**TOTAL CREDITS 30**

**EARLY CHILDHOOD EDUCATION (TEACHER EDUCATION TRANSFER) A.A. DEGREE**

**Description**
See Liberal Arts and Sciences: Early Childhood Education

**ELECTRICAL ENGINEERING TECHNOLOGY - ELECTRONICS A.A.S. DEGREE**

**Description**
Program Objectives: The Electrical Engineering Technology – Electronics program offers our diverse community with a high quality-learning environment and many training opportunities. After successfully completing the requirements of this program, the graduate will be capable of:

STUDENT LEARNING
1. Functioning as a technically qualified electrical/electronics technician, fully capable of working with electrical, electronic, instrumentation, communication, control, and computer hardware and software based applications. Such activities may include the collection and analysis of data, the troubleshooting and repair of defective equipment and circuitry, the translation of engineering designs into projects and test procedures, and the preparation of technical reports for an engineering or sales team.

**PROGRAM LEVEL SUCCESS**
2. Successfully transferring to a four or five year baccalaureate program in electrical, computer, or telecommunications engineering technology. This allows the graduate to continue to participate in life-long learning if she/he desires.
3. Displaying employability in a qualified technical environment with a variety of constituencies such as clients, co-workers, supervisors, customers utilizing skills acquired in the program. Such skills include professional oral and written
communication, critical-thinking and team working skills.
4. Engaging in professional development activities and building upon her/his
initial technical background and achieved degree.

Monroe Community College’s Electrical Engineering Technology -- Electronics
program is accredited by the Engineering Technology Accreditation Commission of
the Accreditation Board for Engineering and Technology (ETAC of ABET). For further
information regarding accreditation, contact: Accreditation Director for Engineering Technology, Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. Telephone: (410) 347-7700.
(Housed in the Engineering Technologies Department)

Program Learning Outcomes
1) Collect and analyze data associated with an electrical engineering technology
project.
2) Troubleshoot and repair defective equipment and circuitry.
3) Translate engineering designs into projects and test procedures.
4) Prepare technical reports for an engineering or sales team.
5) Apply knowledge of electrical engineering technology principles and standards
(hardware and software) to the construction or functioning of electrical/electronics
systems (ETAC-ABET Outcome A).
6) Apply principles of physics or chemistry with mathematical rigor (at or above
the level of algebra and trigonometry) to problems associated with electronics (ETAC-
ABET Outcome B).
7) Conduct and interpret standard tests and measurements associated with
electronics experiments (ETAC-ABET Outcome C).
8) Conduct experiments applying electronic principles (ETAC-ABET Outcome C).
9) Analyze experimental data using electronic principles (ETAC-ABET Outcome C).
10) Function effectively as a member of a technical team (ETAC-ABET Outcome D).
11) Identify and solve electrical engineering problems (ETAC-ABET Outcome E).
12) Communicate effectively regarding narrowly-defined electrical engineering
technology activities (ETAC-ABET Outcome F).
13) Identify and discuss issues related to professional development and continuing
education and training within the field of electrical engineering technology (ETAC-
ABET Outcome G).
14) Discuss issues associated with electrical engineering professions including
those related to diversity and ethics (ETAC-ABET Outcome H).
15) Demonstrate professional behaviors which may include timeliness dedication to
quality or continuous improvement (ETAC-ABET Outcome I).

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or Math 104 at MCC).

Distribution Requirements
FIRST SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 College Composition OR</td>
<td>3</td>
</tr>
<tr>
<td>EGT 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>ELT 101 Electric Circuit Analysis I OR</td>
<td>4</td>
</tr>
<tr>
<td>ELT 121 AC/DC Circuit Analysis***</td>
<td>4</td>
</tr>
<tr>
<td>ELT 111 Introduction to Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>MATHEMATICS ELECTIVE**</td>
<td>3</td>
</tr>
<tr>
<td>TEK 101 Computer Applications for Technicians**</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 15

SECOND SEMESTER: 17 Credit Hours

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATHEMATICS ELECTIVE*</td>
<td>3</td>
</tr>
<tr>
<td>ELT 102 Electric Circuit Analysis II***#</td>
<td>5</td>
</tr>
<tr>
<td>ELT 112 Linear Circuits</td>
<td>5</td>
</tr>
<tr>
<td>PHY 145 College Physics I</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 17

THIRD SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 201 Linear Systems</td>
<td>4</td>
</tr>
<tr>
<td>ELT 202 Pulse and Digital Circuits</td>
<td>4</td>
</tr>
<tr>
<td>MATHEMATICS ELECTIVE*</td>
<td>4</td>
</tr>
<tr>
<td>PHL 105 Technology and Values</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 15

FOURTH SEMESTER: 17 Credit Hours

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 204 Industrial Electronics and Control</td>
<td>4</td>
</tr>
<tr>
<td>ELT 205 Communications Systems</td>
<td>5</td>
</tr>
<tr>
<td>ELT 206 Digital Systems and Microprocessors</td>
<td>5</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 17

TOTAL CREDITS 64

* MATHEMATICS ELECTIVES should be selected with guidance from faculty
advisors. Those who are not considering transfer to an upper division program will
probably take the MTH 140/141/175 technical math sequence. Those contemplating
transfer (and having a good math background) can fulfill their math requirement
with the MTH 165/175/210 transfer math sequence. Students who are not
proficient in algebra and trigonometry should consult a math advisor about taking
MTH 125, MTH 098, MTH 104 and/or MTH 164 in preparation for the required
technical math or transfer math sequence.

# ELT 101 or ELT 121 may serve as the prerequisite.
NOTE: Students in “2+2” Agreements should meet with their faculty advisor to
make certain the courses they have selected meet the requirements of the college
to which they plan to transfer.

NOTE: Electronics courses are normally offered only one semester per year, and
have as a prerequisite certain lower numbered ELT courses. Failure to complete ELT
courses in a properly planned sequence may result in a delay of graduation. Most
other courses in this program are available Fall, Spring and Summer sessions.
NOTE: Students with less academic preparation will need three years to complete
the Electronics program. The first year, the student could select from among MTH
098, MTH 104, MTH 125 and/or MTH 164, PHY 100, TEK 100, 101, 190, ELT 130, CFT
100, REA 100, TEK courses; ENG 101, PE; social science electives, etc. Contact an
ELT advisor for details, and to explore the advisability of taking ELT 121 and ELT 102.

ELECTRO-OPTICS TECHNOLOGY
A.A.S. DEGREE

Description
See OPTICAL SYSTEMS TECHNOLOGY
**Electronics Technology Certificate Program**

**CIP Code:** 15.0303  
**NYSED Code (BRI):** 01240

**Description**  
The Electronics Technology Certificate Program provides an intermediate recognition for those pursuing the A.A.S. degree, as well as for those desiring only special groups of Electronics courses.  
(Housed in the Engineering Technologies Department)

**Program Learning Outcomes**  
1) Collect and analyze data associated with an electrical engineering technology project.  
2) Troubleshoot and repair defective equipment and circuitry.  
3) Translate engineering designs into projects and test procedures.  
4) Prepare technical reports for an engineering or sales team.  
5) Apply knowledge of electrical engineering technology principles and standards (hardware and software) to the construction or functioning of electrical/electronics systems (ETAC-ABET Outcome A).  
6) Apply principles of physics or chemistry with mathematical rigor (at or above the level of algebra and trigonometry) to problems associated with electronics (ETAC-ABET Outcome B).  
7) Conduct and interpret standard tests and measurements associated with electronics experiments (ETAC-ABET Outcome C).  
8) Conduct experiments applying electronic principles (ETAC-ABET Outcome C).  
9) Analyze experimental data using electronic principles (ETAC-ABET Outcome C).  
10) Function effectively as a member of a technical team (ETAC-ABET Outcome D).  
11) Identify, analyze, and solve electrical engineering problems (ETAC-ABET Outcome E).  
12) Communicate effectively regarding narrowly-defined electrical engineering technology activities (ETAC-ABET Outcome F).  
13) Identify and discuss issues related to professional development and continuing education and training within the field of electrical engineering technology (ETAC-ABET Outcome G).  
14) Discuss issues associated with electrical engineering professions, including those related to diversity and ethics (ETAC-ABET Outcome H).  
15) Demonstrate professional behaviors, which may include timeliness, dedication to quality, or continuous improvement (ETAC-ABET Outcome I).

**Requirements for Program Entrance**  
Intermediate Algebra with Trigonometry (or Math 104 at MCC).

**Distribution Requirements**  
**FIRST SEMESTER: 15-16 Credit Hours**  
- TEK 101 Computer Applications for Technicians ..................................................... 2  
- ELT 111 Electronic Technology ................................................................................. 3  
- ELT 121 AC/DC Circuit Analysis .............................................................................. 4  
- ENG 101 College Composition OR ENG 200 Advanced Composition .................... 3  
- MTH 140 Technical Mathematics I* ........................................................................ 3-4  
**Total 15-16**

**SECOND SEMESTER: 13-14 Credit Hours**  
- ELT 102 Electric Circuit Analysis II ................................................................. 5  
- ELT 112 Electronic Technology ............................................................................. 5  
- TECHNICAL ELECTIVE ..................................................................................... 3-4  
**Total 13-14**  
**TOTAL CREDITS 28-30**  
* or MTH 164 AND MTH 165, or MTH 175, or MTH 210 or higher.

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**Emergency Medical Services Certificate Program**

**CIP Code:** 51.0904  
**NYSED Code (BRI):** 21707

**Description**  
This certificate is designed for students interested in preparing for entry into the emergency medical services field and to prepare them academically for progression to the level of paramedic. Students will be able to seek to obtain certification to as a New York State Emergency Medical Technician after completion of EMS 110. Students will prepare themselves for work in the EMS field with courses regarding EMS management. MCC is recognized by the Department of Health as an authorized sponsor of EMS Certification Programs.  
(Housed in PSTF)

**Program Learning Outcomes**  
1) Perform a comprehensive patient assessment  
2) Deliver medications according to protocols  
3) Deliver life-saving interventions according to protocols  
4) Manage patient care while providing safe transportation to appropriate facilities  
5) Communicate effectively with a variety of audiences which could include: patients families/friends or other public safety and medical professionals

**Requirements for Program Entrance**  
Required Pre-requisite(s). Elementary Algebra with Geometry (or Math 098 at MCC).

**Distribution Requirements**  
**FIRST SEMESTER: 12 CREDITS**  
- ENG 101 College Composition OR ENG 200 Advanced Composition .................... 3  
- EMS 110 Emergency Medical Technician .............................................................. 6  
- SPC 144 Communication in Crisis .......................................................................... 3  
**Total 12**

**SECOND SEMESTER: 12 - 13 CREDITS**  
- PSY 101 Introductory Psychology ........................................................................... 3  
- BIO 133 Human Biology ....................................................................................... 3  
- MTH 150 Survey of Mathematics or Higher. ......................................................... 3  
- *PROGRAM ELECTIVE ..................................................................................... 3-4  
**Total 12-13**

**PROGRAM ELECTIVES: 3 - 4 Credit Hours from:**  
- ASL 101 American Sign Language I  
- BIO 132 Laboratory to Accompany Human Biology ........................................... 1  
- BIO 142 Human Anatomy .................................................................................... 4  
- CHE 100 Preparatory Chemistry ........................................................................... 4  
- EMS 141 Operational Management for EMS .................................................... 3  
- EMS 142 Administrative Management for EMS ............................................... 3  
- HED 115 Death and Dying ................................................................................... 3  
- HIM 104 Medical Terminology ............................................................................ 3  
- MTH 160 Statistics I ............................................................................................. 3  
- PEC 253 Stress Management ............................................................................... 2  
- PPE 170 Introduction to Sport Medicine .............................................................. 3  
- SPA 141 Spanish for the Health Professions ....................................................... 3  
**TOTAL CREDITS 24-25**

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www.monroecc.edu/go/academicprograms
ENGINEERING SCIENCE
A.S. DEGREE

CIP Code: 14.0101
MCC Program Code: EN01
NYSED Code (BRI): 01211

Description
The purpose of the Engineering Science program is to prepare students for transfer to a four-year engineering school with junior status. Input from several four-year engineering schools in New York State and the Two Year Engineering Science Association of New York has been incorporated into the curriculum design to ensure transferability of the courses. The curriculum provides students with a broad based engineering education enabling them to explore a variety of engineering disciplines before declaring the field they will pursue. Several courses in the program include design and build experiences that allow students to apply what they learn to create working models.

NOT: Credit earned or transfer credit received (e.g., dual credit courses) for engineering technology courses (e.g., CIT, CPT, ELT, MET, MFG, OPT) are NOT applicable to the Engineering Science degree.

(Housed in Engineering Science & Physics Department)

Program Learning Outcomes
1) Solve various problems by applying a fundamental understanding of the basic principles of mathematics science and engineering
2) Practice effective team-building skills
3) Display effective presentation/communication skills
4) Apply knowledge of the engineering design and development process in practical situations
5) Design and conduct experiments
6) Analyze and interpret the results of experiments
7) Design systems components or processes to meet specified objectives within realistic constraints
8) Discuss sustainability issues in engineering
9) Develop computational skill and capability using computer hardware and software

Requirements for Program Entrance
Pre-calculus (Pre-calculus in high school with an 85 or Math 17S at MCC). Three years of science, including Chemistry and Physics.

Distribution Requirements Credit Hours

FIRST SEMESTER: 18 Credit Hours
ENG 101 College Composition OR
ENG 200 Advanced Composition ................................................................. 3
MTH 210 Calculus I .................................................................................... 4
CHE 151 General College Chemistry I ...................................................... 4
ENR 161 Computing with Microsoft Excel and LabVIEW ..................... 3
ENR 153 Mechanical Design and Prototyping * # ...................................... 4

Total 18

SECOND SEMESTER: 18 Credit Hours
ENGLISH ELECTIVE ..................................................................................... 3
MTH 211 Calculus II .................................................................................... 4
PHY 161 University Physics I ...................................................................... 4
ENR 157 Digital Electronics and Microcontrollers * +............................. 4
SOCIAL SCIENCE ELECTIVE .................................................................. 3

Total 18

THIRD SEMESTER: 18 Credit Hours
SOCIAL SCIENCE ELECTIVE ..................................................................... 3
MTH 212 Calculus III .................................................................................. 4
PHY 261 University Physics 2...................................................................... 4
ENR 251 Statics OR CSC 202 * # ............................................................. 3
ENR 253 Circuit Analysis 1+ ........................................................................ 4

Total 18

FOURTH SEMESTER: 16-17 Credit Hours
PHYSICAL/HEALTH EDUCATION .............................................................. 2
MTH 225 Differential Equations ................................................................. 4
ENR 252 Dynamics +#** ............................................................................ 3
ENR 261 Engineering Computing 2 ........................................................... 3
ENR 254 Circuit Analysis 2 OR
ENR 256 Mechanics of Materials** ........................................................... 3
ENR 259 Engineering Design Laboratory* ................................................ 1

Total 16-17

TOTAL CREDITS 70-71

* Denotes courses containing a design and build experience.

RECOMMENDED ELECTIVES:
Chemical Engineering: **Choose ENR 256. Replace +ENR 157, ENR 253, and ENR 252 with CHE 152, CHE 251, and CHE 252.

Computer Engineering: **Choose ENR 254. #Replace ENR 153, ENR 251, and ENR 252 with CSC 101, CSC 103, and CSC 202.

Electrical Engineering: **Choose ENR 256. **Choose ENR 254. ***Choose ENR 251 or CSC 202 and replace ENR 252 with PHY 262 (formerly PHY 252).

Mechanical/Civil/Aeronautical Engineering: **Choose ENR 156. +
Choose ENR 157 or CHE 152.

Optics: Choose ENR 254. In addition, ENR 251 and ENR 252 should be replaced with cross-registration into OPT 241 and OPT 261 at the University of Rochester.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES
NON-DEGREE

CIP Code: MCC Program Code:

NYSED Code (BRI):

Description
Courses are offered for limited English proficient students who wish to prepare themselves linguistically and culturally so they can successfully complete an academic program of study or pursue their career goals.

Courses range from an intensive program at the intermediate level to courses for general language development and specific skills at the higher levels. Placement in these courses is made on the basis of objective testing, a written evaluation, and an interview with an ESOL faculty member. Students, after evaluation, may be considered for admission into this program only if their skill level is appropriate for the courses offered. After the initial semester, students are expected to progress through the sequence of courses as listed. However, students must receive a grade of C or higher to advance to the next level. ESOL courses may be used to fulfill general elective requirements in degree programs if approved by the student’s advisor.

Support services are available for students enrolled in ESOL courses. These include use of the Learning Assistance Center, tutoring, and advisement, both academic and personal.

NOTE: International students requiring F-1 visas are not eligible for admission into the ESOL program.

(Housed in the ESOL/Transitional Studies Department )

www.monroecc.edu/go/academicprograms

Academic Programs 81
Program Learning Outcomes
1. Interpret works of Standard American English, which could include unsimplified newspaper or magazine articles, or level appropriate fiction or non-fiction books.
2. Summarize newspaper, magazine, or academic articles.
3. Make text to text, text to self or text to world connections.
4. Respond appropriately to teacher instructions or classmates’ comments.
5. Discuss course materials in various sized groups.
6. Write at the skill level needed to enter ENG 101.
7. Employ appropriate strategies for handling unfamiliar vocabulary words.
8. Apply computer skills at a basic level for purposes that may include word processing, email, online research, or using library databases.

Requirements for Program Entrance
Please contact the Admissions Office.

Courses

ESL 100 Intermediate II: Reading Focus ................................................................. 4
ESL 120 Intermediate II: Integrated Skills ............................................................. 7
ESL 130 Advanced I: Integrated Skills ................................................................. 7
ESL 201 Advanced II: Reading/Writing ................................................................. 4

Elective Courses:
ESL 138 ESOL: Pronunciation .............................................................................. 2
ESL 158 ESOL: Oral Communication .................................................................... 3

Evening Offerings:
ESL 130 ESOL: Multi-Skills I .................................................................................. 3
ESL 145 ESOL: Multi-Skills II .................................................................................. 4
ESL 201 ESOL-Advanced II: Reading/Writing ....................................................... 4

ENTREPRENEURIAL AND APPLIED BUSINESS STUDIES
A.A.S. DEGREE

CIP Code: 52.0701
NYSED Code (BRI): EP01
NYSED Code (DCC): 31838 26915

Description
This program will develop the skills and knowledge needed by students who plan to start their own business ventures, work in a family business, expand their present business, or seek employment in a small business after receiving their Associates degree. The core courses within this degree provide students with a solid base of business, personal, analytical, and problem solving skills. Additionally, this program will provide basic knowledge in the fields of accounting, law, marketing, management, and customer service.

This program is not designed as a transfer program. Students who plan to transfer to a four-year college to earn their Bachelor’s degree should discuss their plans with an advisor as early as possible to identify the appropriate program.
(Housed in the Business Administration and Economics Department)

Program Learning Outcomes
1) Utilize identified accounting concepts to make informed decisions about the operating performance and financial position of a company.
2) Apply leadership and workplace relationship skills to effectively deal with various organizational stakeholders.
3) Communicate effectively using multiple forms of communication.
4) Identify and describe major issues modern business organizations encounter which may include legal ethical or social issues.
5) Apply information management skills including the use of Microsoft Office software to business related tasks.
6) Utilize identified successful marketing efforts to market a business in the areas of product price place or promotion.
7) Develop a comprehensive business plan.

8) Apply critical thinking skills to develop business strategies that result in profitable business operations.
9) Identify and describe important business development principles which could include forms of ownership operations or business management.
10) Demonstrate effective teamwork skills that enhance team processes.

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or Math 104 at MCC).

Distribution Requirements

FIRST SEMESTER: 14-15 Credit Hours
ENG 101 College Composition OR
ENG 200 Advanced Composition ........................................................................ 3
SOCIAL SCIENCE ELECTIVE* ........................................................................... 3
BUS 104 Introduction to Business ........................................................................ 3
PHYSICAL/HEALTH EDUCATION ...................................................................... 2
MTH 104 Intermediate Algebra or higher (except MTH 130 or MTH 150)** ........................................ 3-4
Total 14-15

SECOND SEMESTER: 16 Credit Hours
ENG 250 Professional Communications .................................................................. 3
BUS 110 Entrepreneurial Studies I ......................................................................... 3
BUS 125 Supervising for Quality ........................................................................... 3
BUS 200 Legal Environment of Business .............................................................. 3
ACC 130 Introductory Accounting and Financial Analysis*** ................................ 4
Total 16

THIRD SEMESTER: 15 Credit Hours
SPC 141 Interpersonal Speech Communications OR
SPC 143 Small Group Communication ................................................................ 3
ECO 101 Introduction to Economics OR
ECO 111 Principles of Microeconomics ................................................................ 3
MAR 200 Principles of Marketing ........................................................................... 3
BUS 220 Applied Business Applications ................................................................ 3
ECO 103 Personal Money Management ................................................................ 3
Total 15

FOURTH SEMESTER: 16 Credit Hours
BUS 210 Entrepreneurial Studies II ....................................................................... 3
BUS 275 Business Cooperative Education ............................................................ 4
NATURAL SCIENCE ELECTIVE .......................................................................... 3
MAR 201 Dynamics of Selling ............................................................................... 3
BUS 207 Human Resources Management ............................................................. 3
Total 16

TOTAL CREDITS 61-62

* Recommended Social Science Elective: PSY 100, SOC 101 or ANT 102
** Students with strong math skills should consult with their advisor to select the appropriate math course
*** Students who have completed ACC 101 and ACC 102 may substitute that sequence for ACC 130

www.monroec.edu/go/academicprograms
ENVIRONMENTAL SCIENCE ADVISEMENT SEQUENCE

FINE ARTS

Description
The mission of the Fine Arts Program at Monroe Community College is to prepare students for transfer to four-year institutions, where degree programs are available that provide entry into a variety of art related professions. It is the goal of the Fine Arts degree program to provide students with the fundamental skills and concepts necessary for a solid foundation in the visual arts. We believe that the core curriculum that we have structured will offer students the opportunity to become proficient in a variety of studio art procedures and practices. Courses in drawing, two-dimensional design, painting, figure drawing, three-dimensional design, art history and sculpture are coupled with a strong liberal arts curriculum, so students will be well prepared for advanced coursework in their chosen disciplines.

Program Learning Outcomes
1) Utilize the elements and principles of art and design in the creation of two-dimensional works.
2) Utilize the elements and principles of art and design in the creation of three-dimensional works.
3) Demonstrate proficiency in perceptual drawing translating observation to image.
4) Create works of art using a range of art materials.
5) Analyze works of art and design including their own using formal art terminology verbally and in writing.
6) Identify a range of basic art historical periods and styles.

Requirements for Program Entrance
Pre-Algebra (1 year high school math or Placement into Level 3 Math at MCC). Art courses recommended.

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition .................................................. 3
MTH 150 Survey of Mathematics (or higher) ...................................................................................... 3
ART 102 Fine Arts: Theory and Practice ............................................................................................. 3
ART 104 Drawing I ............................................................................................................................ 3
ART 109 Two Dimensional Design ..................................................................................................... 3

Total 15

SECOND SEMESTER: 15 Credit Hours

SUNY GENERAL EDUCATION LITERATURE ELECTIVE .......................................................... 3
SUNY GENERAL EDUCATION SOCIAL SCIENCE OR OTHER WORLD CIVILIZATIONS ELECTIVE .................................................................................................................. 3
ART 118 Perspectives of Art History I: Ancient .................................................................................. 3
ART 125 Three Dimensional Design .................................................................................................. 3
ART 154 Drawing the Human Figure ................................................................................................ 3

Total 15

FIRE PROTECTION TECHNOLOGY

Description
The Fire Protection Technology AAS degree is designed to explore the application of technology to the field of fire protection. The curriculum prepares students to meet the challenges of contemporary problems in the fire protection disciplines. Employment and advancement opportunities for graduates are found in both the municipal and industrial fire protection field, marketing and support of fire suppression and detection systems, and safety departments of mid to large size companies. Most Fire Protection courses meet in the evening.

Program Learning Outcomes
1) Explain the history of the Fire Service from its inception and identify key events that have impacted the development of the present day Fire Service.
2) Describe the basic science of fire.
3) Compare the different types of building construction and explain the characteristics of each and how they affect fire protection.
4) Characterize and operate fire detection and suppression systems.
5) Perform a basic fire inspection and outline steps to increase life safety.
6) Apply theoretical knowledge of hydraulic principles as they relate to the fire service.
7) Promote health and wellness in the fire service.
8) Initiate and employ the Incident Command System.
9) Apply the basic principles of fire investigation and evidence preservation.

THIRD SEMESTER: 16 Credit Hours

SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE .................................................. 3
ELECTIVE ................................................................................................................................. 3
ART 119 Perspectives of Art History II: Modern ........................................................................... 3
ART 120 Painting I ...................................................................................................................... 3
ART 130 Sculpture I .................................................................................................................... 3
HEALTH/PHYSICAL EDUCATION ......................................................................................... 1

Total 16

FOURTH SEMESTER: 16 Credit Hours

SOCIAL SCIENCE ELECTIVE .................................................................................................... 3
HUMANITIES ELECTIVE ............................................................................................................ 3
ELECTIVE ................................................................................................................................. 3
ART 204 Drawing II .................................................................................................................. 3
ART 220 Painting II OR ART 230 Sculpture II .......................................................................... 3
HEALTH/PHYSICAL EDUCATION ......................................................................................... 1

Total 16

TOTAL CREDITS 62

Humanities [HM01]: AAD 105; ART; CIN; COM 101, 120, 130, 131, 270; EDU 150; ENG; FOR. LA.; HIS 257; HMN; MUS; PHO 101, 106, 135, 140, 145; REA 101; SPC; THE

Social Sciences [SS01]: AAD 107; ART 118, 119, 121, 240, 271; ECE 250, 251; ECO; EDU 208; GEG (except 100, 101, 104, 110, 111, 130, 252, 253); HIS; LAW; MUS 119, 120, 150, 155, 201, 202; PHO 140, 145; POS; PPE 208; PSY; SBS; SOC; SVL 101, 106

www.monroec.edu/go/academicprograms

Academic Programs
Students should select electives based on individual career goals and advisement.

**Requirements for Program Entrance**

Algebra (1 year high school math or placement into Level 3 Math at MCC).

**Distribution Requirements**

**FIRST SEMESTER: 15 Credit Hours**

- FPT 101 Fire Behavior and Combustion .......................................................... 3
- FPT 102 Fire Prevention and Inspection ........................................................... 3
- MTH 150 Survey of Mathematics ...................................................................... 3
- LIBERAL ARTS ELECTIVE .................................................................................. 3

**SECOND SEMESTER: 16 Credit Hours**

- FPT 103 Building Materials and Construction ................................................. 3
- SOCIAL SCIENCE ELECTIVE .............................................................................. 3
- NATURAL SCIENCE ELECTIVES ...................................................................... 3
- HEALTH/PHYSICAL EDUCATION ...................................................................... 1

**THIRD SEMESTER: 15 Credit Hours**

- FPT 211 Fire Investigation: Cause and Origin .................................................. 3
- FPT 215 Hazardous Materials Technical ........................................................... 3
- FPT 216 Fire Service Instructor I ......................................................................... 3
- ELECTIVE* ........................................................................................................ 3
- ELECTIVE* ........................................................................................................ 3

**FOURTH SEMESTER: 16 Credit Hours**

- FPT 212 Fire Service Hydraulics ....................................................................... 3
- FPT 204 Fire Service Strategy and Tactics ......................................................... 3
- PSY 101 Introduction to Psychology .................................................................... 3
- PHL 103 Introduction to Ethics .......................................................................... 3
- PUBLIC SAFETY ELECTIVE ............................................................................ 3
- HEALTH/PHYSICAL EDUCATION ELECTIVE .................................................. 1

**TOTAL CREDITS 62**

**FOOD MANAGEMENT**

**CERTIFICATE PROGRAM**

**CIP Code:** MCC Program Code: 19.0505 HM08

**NYSED Code (BRI):** 01226

**Description**

The Food Service Management Certificate program is designed for the student who has sufficient work experience in the production and service areas of the food industry and who would like to gain a deeper insight into food management areas for job enrichment, promotional consideration or possible future positions. (Housed in the Hospitality Department)

**Program Learning Outcomes**

1. Demonstrate the ability to apply proper food handling techniques.
2. Apply different cooking techniques and predict their outcome.
3. Discuss current trends in the food service industry from a menu planning perspective.
4. Assess the factors that influence healthy food choices throughout the life cycle.
5. Demonstrate the basic fundamentals of cooking in a professional kitchen.
6. Provide basic supervision of employees in the hospitality environment.
7. Demonstrate basic accounting skills.
8. Undertake basic activities associated with food purchasing, storage and handling in a hospitality environment.

**Requirements for Program Entrance**

Pre-Algebra (1 year high school math or placement into Level 3 Math at MCC).

**Distribution Requirements**

**FIRST SEMESTER: 18 Credit Hours**

- FSA 117 Basic Consumer Nutrition .................................................................... 3
- ACC 101 Accounting Principles I OR ACC 110 Fundamentals of Accounting I OR ACC 130 Introductory Accounting and Financial Analysis ............ 4
- C E 260 Cooperative Education-Hospitality Management* ................................ 4
- HSP 201 Hospitality Human Resources Management ...................................... 3
- FSA/GLF/HTL/HSP/TVL ELECTIVE .................................................................. 3

**SECOND SEMESTER: 17 Credit Hours**

- FSA 106 Food Safety and Sanitation ................................................................ 1
- FSA 103 Culinary Arts I: Fundamentals of Food Preparation ......................... 5
- FSA 105 Food Safety and Sanitation ................................................................ 1
- FSA 107 Menu Planning .................................................................................. 3
- FSA 205 Purchasing, Storage and Handling .................................................... 3
- ENGLISH ELECTIVE ....................................................................................... 3
- PSYCHOLOGY ELECTIVE .............................................................................. 3

**TOTAL CREDITS 35**

* CE 260 can be taken during the summer

**NOTE:** Please see Hospitality Management A.A.S. Degree – Food Service and Culinary Arts for a degree option to the Certificate program.
GENDER AND SEXUALITY STUDIES
A. S. DEGREE

CIP Code: 05.0299
NYSED Code (BRI): 37565
NYSED Code (DCC): 37566

Description
The Gender and Sexuality Studies program is a transfer degree program which defines gender and sexuality as fundamental categories of social and cultural analysis. This program is an interdisciplinary program that employs the analytical frameworks of the social sciences and other disciplines of the liberal arts. Working from the premise that gender and sexuality are social and cultural constructions, this program will examine how they are categories of social organization and power relations. This program utilizes cross-cultural and historical scholarship to examine social institutions, social inequalities, and the intersections of gender and sexuality with other social identities.

Program Learning Outcomes
1. Define gender and sexuality.
2. Explain the social construction of gender and sexuality.
3. Describe and explain how gender and sexuality are the basis for social organization on both micro and macro levels.
4. Analyze social hierarchies and inequalities based on gender and sexuality in the US and globally.
5. Compare and contrast the intersections of gender and sexuality with other social identities.
6. Describe the micro and macro level processes of inclusion and exclusion.
7. Apply theoretical principles of historical and contemporary scholarship.
8. Apply research skills to examine gender and sexuality.
9. Apply theoretical knowledge of social justice to promote an equitable social order.

Requirements for Program Entrance
Algebra (1 year high school math or placement into level 4 math at MCC).

FIRST SEMESTER: 15 CREDIT HOURS
ENG 101 College Composition OR
ENG 200 Advanced Composition ................................................................. 3
SOC 101 Introduction to Sociology ............................................................... 3
ANT 102 Cultural Anthropology ................................................................. 3
SUNY GENERAL EDUCATION - SOCIAL SCIENCE ELECTIVE .................. 3
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ............................ 3
TOTAL 15

SECOND SEMESTER: 17 CREDIT HOURS
ENG 217 Women in Literature ............................................................... 3
HIS 200 Women in the United States: A Historical Perspective – WR ....... 3
PSY 150 Psychology of Human Sexuality .................................................. 3
SOC 208 Sociology of Gender and Sexuality – WR ................................. 3
SUNY GENERAL EDUCATION – NATURAL SCIENCE ELECTIVE .......... 3
TOTAL 15

THIRD SEMESTER: 17 CREDIT HOURS
MTH 180 Statistics I .................................................................................. 3
PSY 202 Developmental Psychology – Adolescence ............................ 3
PROGRAM ELECTIVE .................................................................................. 3
SUNY GENERAL EDUCATION - SOCIAL SCIENCE ELECTIVE ............. 3
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ....................... 3
HEALTH/PHYSICAL EDUCATION ............................................................. 2
TOTAL 17

FOURTH SEMESTER: 15 CREDIT HOURS
SOC 211 Sociology of Work – WR OR SBS 125 Women’s Issues .............. 3
SOC 204 Sociology of the Family – WR .................................................. 3
PROGRAM ELECTIVE .................................................................................. 3
PROGRAM ELECTIVE .................................................................................. 3
LIBERAL ARTS ELECTIVE ......................................................................... 3
TOTAL 15

TOTAL CREDITS 62

GEOSCIENCES ADVISEMENT SEQUENCE
A. S. DEGREE

Description
See Liberal Arts and Sciences Program - Science Transfer Opportunities

GLOBAL STUDIES
A. S. DEGREE

CIP Code: 30.2001
NYSED Code (BRI): 33775
NYSED Code (DCC): 33776

Description
The Global Studies program provides students with the educational tools to better understand the diversity and complexities of the global community. The conceptual approach employed includes the systematic examination of the people, cultures, government, and institutions that comprise the world system, as well as the study of interdependence on a global level. Students will also be prepared for additional studies in four-year colleges and universities and a range of career opportunities in government, non-profit, and private sector institutions and activities.

Program Learning Outcomes
1. Explain the importance of being a global citizen in a complex and interdependent world.
2. Apply theories and concepts to global phenomena.
3. Identify the variety of international actors in the global system.
4. Analyze the political, economic, social, and cultural issues within a global framework.
5. Explain the role of identity in global politics.
6. Employ effective communication skills with respect to global issues.
7. Plan research involving the gathering and analysis of data related to global studies.

Requirements for Program Entrance
Algebra (1 year high school math or placement into level 4 math at MCC).

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours
ENG 101 College Composition OR
ENG 200 Advanced Composition ............................................................. 3
SOC 101 Introduction to Sociology .......................................................... 3
ANT 102 Cultural Anthropology............................................................... 3
SUNY GENERAL EDUCATION - NATURAL SCIENCE ELECTIVE .......... 3
SUNY GENERAL EDUCATION - FOREIGN LANGUAGE ELECTIVE .......... 3
TOTAL 15

Total 15
SECOND SEMESTER: 15 Credit Hours
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ........................................... 3
FOREIGN LANGUAGE ELECTIVE ............................................................................. 3
SOCIAL SCIENCE ELECTIVE ..................................................................................... 3
POS 206 International Politics ..................................................................................... 3
GEG 102 Human Geography ......................................................................................... 3
Total 15

THIRD SEMESTER: 17 Credit Hours
MTH 160 Statistics I ................................................................................................... 3
SOC 210 Global Interdependence - WR ........................................................................ 3
POS 209 Environmental Sociology ................................................................................. 3
PROGRAM ELECTIVE ..................................................................................................... 3
PDS 225 Comparative Political Systems - WR ................................................................. 3
HEALTH/PHYSICAL EDUCATION ................................................................................. 2
Total 17

FOURTH SEMESTER: 15 Credit Hours
LIBERAL ARTS ELECTIVE ............................................................................................. 3
SUNY GENERAL EDUCATION - SOCIAL SCIENCE ELECTIVE .................................. 3
PROGRAM ELECTIVE ..................................................................................................... 3
PROGRAM ELECTIVE ..................................................................................................... 3
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ........................................... 3
Total 15

TOTAL CREDITS 62

PROGRAM ELECTIVES:
ANT 201, 202, 216; ART 118, 119, 121; BIO 116; BUS 250; ECO 101; ENG 108, 201, 202, 210, 217, 230; GEG 211, 218; HIS 113, 114, 153, 154, 216, 219, 275; HMN 101, 106, 220, 221, HON 195; IDC 295; MUS 119; PHL 103, 108, 109, 210; POS 101, 210, 216, 234; PSY 222; SUS 101.

5) Take a customer’s specifications and fit them into the proper equipment
6) Classify requirements of nutrition for turf grass
7) Produce a policies and procedures manual.

Requirements for Program Entrance
Pre-Algebra (1 year high school math or placement into Level 3 Math at MCC).
Placement into TRS 200, English 101 or higher.

Distribution Requirements
First Semester: 17 Credit Hours
GLF 115 Introduction to Golf Management .................................................................. 3
GLF 117 The Rules of Golf ............................................................................................. 2
GLF 118 Golf Shop Operation ...................................................................................... 3
GLF 126 Introduction to Golf Equipment ....................................................................... 3
HSP 201 Hospitality Human Resources Management .................................................. 3
HSP Elective* .................................................................................................................. 3
Total 17

Second Semester: 16 Credit Hours
GLF 122 Golf Fundamentals and Methods .................................................................. 3
GLF 130 Golf Course Maintenance .............................................................................. 3
GLF 138 Golf Shop Policies and Services ..................................................................... 3
BUS 110 Entrepreneurial Studies I .............................................................................. 3
CE 260** Cooperative Education - Hospitality Management ...................................... 4
Total 16

Total Credits 33

* CE 255/FSA/GLF 140/HIT/TVL
** CE 260 can be taken during the summer.

NOTE: Please see the Hospitality Management A.A.S. Degree - Golf Management, for a degree option to the Certificate program.

HEALTH INFORMATION TECHNOLOGY/MEDICAL RECORDS
A.A.S. DEGREE

CIP Code: 51.0707
NYSED Code (BRI): 01235
MCC Program Code: H01

Description
The individual holding an associate degree in health information technology is the technical expert in health data collection, analysis, monitoring, maintenance, and reporting activities in accordance with established data quality principles, legal and regulatory standards, and professional best practice guidelines. These functions encompass, among other areas, processing and using health data for coding, billing, compliance, and surveillance purposes. In an e-health environment, this individual performs these functions through the use of various electronic systems.

Registered Health Information Technicians (RHIT) are employed in managerial or technical capacities in health information departments of hospitals, health clinics, long term care facilities, and other health care facilities. Opportunities are available in quality improvement programs, hospital associations, industries, governmental agencies, health information systems, insurance companies, financial auditing firms, and consulting.

Admission and continuation in the HIT program is conditional upon completion of the following requirements:
A. A grade of C or better in High School Biology.
B. All college placement test recommendations must be completed prior to full admission to the program.
C. Completion of medical requirements, clearance of existing health problem(s), and ability to meet essential functions (physical and mental demands) of the program.

Program Learning Outcomes
1) Identify and describe the numerous job descriptions within the golf industry
2) Interpret and communicate rules decisions in the theater of formal competition
3) Design a comprehensive business plan for retail purposes
4) Create a viable revenue stream through structuring a thorough lesson program...
D. A grade of C or better is required in all BIO and HIM courses, as well as MTH 150 and CRC 120 in order to meet degree requirements.

1. A grade of C or better is required, first time, in HIM 100 and HIM 103 for continued matriculation in the program.

2. A student who fails to achieve a grade of C or better in BIO, other HIM courses, as well as MTH 150 and CRC 120, will be given the opportunity to repeat the course once. This option may be elected for a maximum of two courses. No HIM course may be taken more than twice.

3. Successful completion of each Professional Practice internship is required in order to remain in the program.

Readmission to the program is not automatic. Students seeking readmission to the program should contact the Program Director for Health Information Technology for information. Readmission, if approved, is always on a space available basis.

The program of study must be completed within five years of matriculation.

The student is responsible for arranging transportation to and from the College and local professional practice sites when required.

Graduates of this program are eligible to take the certification examination for the designation of Registered Health Information Technician (RHIT), offered by the American Health Information Management Association (233 N. Michigan Avenue, Suite 2150, Chicago, IL 60601-5800; phone 312-233-1100; fax 312-233-1090; web site ahiima.org).

The Health Information Technology Program is accredited by the Commission on Accreditation of Allied Health Informatics and Information Management Education. The Health Information Technology Program Student Outcome Data (as reported in CAHIIM Annual Program Assessment Report 2012-2013). Monroe Community College student Certification Exam Pass Rate for all students taking the examination during the reporting period was 86%. The AHIMA Nation Mean Pass Rate for the same reporting period was 76%.

(Housed in the Health Professions Department)

Program Learning Outcomes

1) Manage healthcare data appropriately in accordance with its intended use.

2) Apply sound principles of confidentiality and security to health information as prescribed by law.

3) Utilize strategies in health information technologies to enable decision making by healthcare professionals.

4) Apply healthcare reimbursement principles in accordance with established requirements in a healthcare environment.

5) Assist healthcare professionals in maintaining documented compliance with health information regulations and standards.

6) Demonstrate leadership skills at strategic, tactical or operational levels.

7) Identify and discuss key medical terms and associated concepts underpinning the health information technology profession.

8) Apply critical thinking skills within the context of the health information profession.

9) Practice behaviors consistent with strong personal branding standards.

Requirements for Program Entrance

A grade of “C” or better in High School Biology. Program applicants should be proficient using personal computers, internet browsers, and word processing programs. Admission to this program is September only.

Distribution Requirements

Credit Hours

FIRST SEMESTER: 18 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition .................................................. 3
BIO 134 Human Anatomy and Physiology I ................................................................. 3
HIM 100 Introduction to Health Information ............................................................... 3
HIM 103 Health Care Documentation ........................................................................... 3
HIM 104 Medical Terminology .................................................................................... 3
MTH 150 Survey of Mathematics (or higher)* ......................................................... 3

Total 18

SECOND SEMESTER: 16 Credit Hours

BIO 135 Human Anatomy and Physiology II .............................................................. 3
HIM 110 ICD-10 Diagnostic and Procedural Classifications .......................................... 4
HIM 111 CPT Procedural Coding System .................................................................... 2
HIM 115 Medical Office Pharmacology ........................................................................ 1
SOCIAL SCIENCE ELECTIVE .............................................................................. 3
CRC 120 Introduction to Medical Information Processing ............................................. 3

Total 16

THIRD SEMESTER: 15 Credit Hours

BIO 239 Pathophysiology ......................................................................................... 3
HIM 204 Health Records in Alternate Care .................................................................. 3
HIM 205 Professional Practice Experience I* ............................................................. 4
HIM 208 Total Quality Management, Legal and Compliance Issues for the Health Information Practitioner ...................................................... 5

Total 15

FOURTH SEMESTER: 15 Credit Hours

HIM 206 Professional Practice Experience II** ............................................................... 4
HIM 209 Management, Supervision & Personal Development in Health Care .............. 2
HIM 211 Health Care Reimbursement ......................................................................... 3
HIM 213 Health Information Systems .......................................................................... 3
HUMANITIES ELECTIVE (recommend SPT) .............................................................. 3

Total 15

TOTAL CREDITS 64

* For transfer, MTH 160 is recommended.

** Enrollment in HIM 205 and HIM 208 is conditional upon satisfactory completion of the medical requirements and clearance from any existing health problem(s).

HEALTH STUDIES

A.S. DEGREE

CIP Code: 51.9999

MCC Program Code: HS01

NYSED Code (BRI): 28560

Description

The Health Studies program prepares students for transfer to a four-year college or university offering health-related degrees. The Health Studies program assists students interested in preparing for health careers including, but not limited to, community health education, school health education, substance abuse counseling, social work, health care administration, medical technology, nursing, recreation and leisure, or wellness promotion.

The program includes courses in liberal arts, biology, psychology, social science, humanities and mathematics. The core program requirements include introductory health education courses in drug use and abuse, chronic and communicable diseases, first aid and safety, as well as personal and emotional wellness.

Students planning to transfer into health education, counseling, health care administration, or other non-medical bachelor’s degree programs should take BIO 134 and 135. Students who plan to transfer into a medical-related bachelor’s degree program such as nursing or medical technology should take BIO 142 and 143. It is recommended that students who are undecided take BIO 142 and 143 to maximize transfer options. Students who are transferring to Brockport or into any nursing program should take BIO217. Students should meet regularly with their program advisor to make certain that their course selections meet the requirements of the four-year college and major to which they plan to transfer.

(Housed in the Health and Physical Education)
HEATING, VENTILATING, AIR CONDITIONING
A.A.S. DEGREE

Description
See AIR CONDITIONING TECHNOLOGY: HEATING AND VENTILATION A.A.S. DEGREE

HEATING, VENTILATING, AIR CONDITIONING
CERTIFICATE PROGRAM

CIP Code: 47.0201
MCC Program Code: HVD2
NYSED Code (BRI): 85118

Description
The Heating, Ventilating, Air Conditioning certificate program is designed for both
the student who is seeking an entry level position as a preventative maintenance
mechanic or installation/service technician, and those currently employed in the field
of heating, ventilating, and air conditioning or related areas.

Program Learning Outcomes
1) Demonstrate effective oral skills for successful employment within the HVAC/R
industry.
2) Work effectively alone or in team environments as required within the HVAC/R
industry.
3) Demonstrate the use of soft skills to gain employment, and as required within the
HVAC/R industry.
4) Outline strategies to increase energy efficiency and reduce energy consumption
of HVAC/R equipment.
5) Demonstrate effective written communication skills for successful employment
within the HVAC/R industry.
6) Demonstrate effective oral skills for successful employment within the HVAC/R
industry.
7) Perform testing and adjustment of HVAC/R equipment for proper operation to
manufacturer OEM standards.
8) Outline strategies to increase energy efficiency and reduce energy consumption
of HVAC/R equipment.
9) Perform testing and adjustment of HVAC/R equipment for proper operation to
manufacturer OEM standards.
10) Work effectively alone or in team environments as required within the HVAC/R
industry.
11) Demonstrate effective oral skills for successful employment within the HVAC/R
industry.
12) Demonstrate effective written communication skills for successful employment
within the HVAC/R industry.

Requirements for Program Entrance
Elementary Algebra with Geometry (or Math 098 at MCC).

Distribution Requirements
Credit Hours

FIRST SEMESTER: 15 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ................................. 3
MTH 160 Statistics I OR Higher .................................................................................... 3
HED 118 Introduction to Safety and Emergency Care .................................................. 3
HED 130 Foundations of Personal Health and Wellness .............................................. 3
HED 209 Drugs and Behavior .................................................................................... 3
Total 15

SECOND SEMESTER: 15 Credit Hours
PSY 101 Introductory Psychology .................................................................................. 3
SOCIAL SCIENCES ELECTIVE* ................................................................. 3
LITERATURE ELECTIVE* .......... 3
BIO 134 Human Anatomy and Physiology I OR BIO 142 Human Anatomy+ ........ 3 or higher
BIO 143 Human Physiology++ ............................................................................ 3 or higher
SPC or LANGUAGE ELECTIVE .......................................................................... 3
HED 208 Chronic/Communicable Disease OR HED 210 Complementary, Alternative
and Integrative Approaches to Health and Wellness .................................................. 3
SOCIAL SCIENCES ELECTIVE* ................................................................. 3
Total 15

THIRD SEMESTER: 15 Credit Hours
PSY 201 Developmental Psychology-Child OR PSY 202 Developmental Psychology-Adolescence OR PSY 212 Developmental Psychology-Lifespan .............................................................. 3
BIO 135 Human Anatomy and Physiology II OR ...................................................... 3 or higher
BIO 143 Human Physiology++ ............................................................................ 3 or higher
SPC or LANGUAGE ELECTIVE .......................................................................... 3
HED 208 Chronic/Communicable Disease OR HED 210 Complementary, Alternative
and Integrative Approaches to Health and Wellness .................................................. 3
SOCIAL SCIENCES ELECTIVE* ................................................................. 3
Total 15

FOURTH SEMESTER: 18 Credit Hours
BIO 117 Basic Consumer Nutrition OR BIO 217 Nutrition ........................................ 3
BIO 202 Microbiology ........................................................................................ 4
ELECTIVES .................................................................................................. 9
PHYSICAL/HEALTH EDUCATION ELECTIVE ................................................... 2
TOTAL 18

TOTAL CREDITS 63

Prerequisite:
+ Grade of C or better in high school biology or BIO 120 or higher with a grade of C-
or better
Prerequisite:
++ BIO 134
Prerequisite:
+++ BIO 142 and high school chemistry or CHE 100 or CHE 124

* Students planning to transfer to a SUNY school must fulfill 7 of 10 of the SUNY
General Education Requirements.
### Homeland Security Certificate Program

**CIP Code:** 43.9999  
**NYSED Code (BRI):** 275400  
**NYSED Code (DCC):** 275410

**Description:** The Homeland Security Certificate Program provides training that prepares students for career opportunities in the public and private sectors related to homeland security to include safety and compliance, enforcement, investigations, computer security, emergency response and other related safety and security fields. It is designed to equip students with the knowledge and skill sets needed to effectively deal with the challenges facing America in the arena of homeland security. This certificate provides an introduction and expands to specific areas in the advanced level courses stressing detection, protection and recovery issues for government, health care providers, businesses, citizens and first responders. (Housed at Public Safety Training Facility)

**Program Learning Outcomes:**
1. Identify security risks and assess potential threats to homeland security.
2. Develop effective countermeasures aimed at protecting our nations resources and infrastructures.

**Requirements for Program Entrance:**
Placement at MCC Math Level 4 or above.

**FIRST SEMESTER: 13 Credits**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSM 101 Introduction to Emergency Management</td>
<td>3</td>
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<tr>
<td>HSM 102 Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>CPT 120 Introduction to Cybersecurity</td>
<td>4</td>
</tr>
<tr>
<td>CPT 125 Physical Security</td>
<td>3</td>
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**SECOND SEMESTER: 12 Credits**

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<tr>
<td>HSM 103 Historical and Contemporary Perspectives on Terrorism and Homeland Security</td>
<td>3</td>
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<tr>
<td>HSM 104 Public Safety Communications</td>
<td>3</td>
</tr>
<tr>
<td>HSM 202 Organizational and Facility Security</td>
<td>3</td>
</tr>
<tr>
<td>SCR 211 Computer Security I</td>
<td>3</td>
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**TOTAL CREDITS 25**

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### Hospitality Management, A.A.S. Degree, Event Planning Track

**CIP Code:** 52.0901  
**MCC Program Code:** HM01  
**NYSED Code (BRI):** 28191

**Description:** This program prepares students for a wide variety of career opportunities within the hospitality industry. Such career choices include, but are not limited to, culinary arts, food service administration, supermarket management, health care and nutrition, hotel technology, golf management, and travel and tourism.

The curriculum emphasizes a broad base of industry skills such as technical knowledge, communication and customer relations skills, and creative problem solving. Cooperative Education provides work-based experience to expand students’ learning opportunities.

Graduates of the Hospitality Management program can begin their careers as manager trainees or supervisors. With experience, they will qualify for such positions as Restaurant Manager, Caterer, Sous Chef, Front Office Manager, Convention Sales Representative, Meeting Planner, Tour Operator, Tourism Consultant, and Golf Facilities Manager. Transfer and 2+2 programs are available in all areas. (Housed in the Hospitality Department)

**Program Learning Outcomes:**
1. Work effectively as a member of a team  
2. Demonstrate critical thinking problem-solving and decision making skills.  
3. Demonstrate effective communication skills.  
4. Demonstrate the ability to effectively interact with customers.  
5. Perform career planning strategies

**Requirements for Program Entrance:**
Algebra (1 year high school math or placement into Level 3 TRS 094 or MTH 130 or higher.)  
English placement (TRS 200) or higher.

**FIRST SEMESTER: 16 CREDIT HOURS**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSP 101 Introduction to the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HSP 202 Introduction to Conference and Event Planning</td>
<td>3</td>
</tr>
<tr>
<td>FSA 107 Menu Planning</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 College Composition OR ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
<td>3</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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**SECOND SEMESTER: 15 CREDIT HOURS**

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<th>Credits</th>
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<td>SOCIAL SCIENCE ELECTIVE</td>
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<tr>
<td>NATURAL SCIENCE ELECTIVE</td>
<td>3</td>
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<tr>
<td>HSP 211 Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>CRC/DS ELECTIVE</td>
<td>2</td>
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<tr>
<td>MTH 104/130/160/165 or higher</td>
<td>3</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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<tr>
<td><strong>Total 15</strong></td>
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</tbody>
</table>
Hospitality Management, A.A.S. Degree, Travel Track

FIRST SEMESTER: 16 CREDIT HOURS

HSP 101 Introduction to the Hospitality Industry ......................................................... 3
TVL 101 Introduction to Travel and Tourism ................................................................. 3
TVL 131 Documentation in the Tourism Industry ....................................................... 3
ENG 101 College Composition OR ENG 200: Advanced Composition ................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

SECOND SEMESTER: 15 CREDIT HOURS

SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
TVL 210 Introduction to Airline Reservations Systems: SABRE ............................... 3
CRC/CIS ELECTIVE .................................................................................................. 2
MTH 104/130/160/165 or higher ............................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 15

THIRD SEMESTER: 16 CREDIT HOURS

HSP 102 Hospitality Service ....................................................................................... 4
FSA 106 Food Safety and Sanitation ........................................................................... 1
HTL 105 Hotel Operations ......................................................................................... 1
ENG 101 College Composition OR ENG 200: Advanced Composition ................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3

TOTAL 16

FOURTH SEMESTER: 17 CREDIT HOURS

HSP 102 Hospitality Service ....................................................................................... 4
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
HSP 102 Hospitality Service ....................................................................................... 4
CRC/CIS ELECTIVE .................................................................................................. 2
HSP 211 Hospitality Law ............................................................................................ 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

Hospitality Management, A.A.S. Degree, Golf Management Track

FIRST SEMESTER: 16 CREDIT HOURS

HSP 101 Introduction to the Hospitality Industry ......................................................... 3
GLF 115 Introduction to Golf Management ................................................................. 3
GLF 118 Golf Shop Operations .................................................................................... 3
ENG 101 College Composition OR ENG 200 Advanced Composition ................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

SECOND SEMESTER: 15 CREDIT HOURS

SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
CRC/CIS ELECTIVE .................................................................................................. 2
MTH 104/130/160/165 or higher ............................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 15

THIRD SEMESTER: 19 CREDIT HOURS

ENG 105 Introduction to Literature OR ENG 250 Professional Communication OR ENG
ELECTIVE ..................................................................................................................... 3
HSP 201 Hospitality Human Resources Management ................................................. 3
GLF 126 Introduction to Golf Equipment .................................................................... 3
GLF 130 Golf Course Maintenance ............................................................................. 3
ACC 101 Accounting Principles I OR ACC 130 Introductory Accounting and Financial
Analysis ..................................................................................................................... 4

TOTAL 19

FOURTH SEMESTER: 14 CREDIT HOURS

HSP 102 Hospitality Service ....................................................................................... 4
GLF 136 Golf Shop Policies and Services .................................................................. 3
CE 260 Cooperative Education – Hospitality Management ...................................... 4
CE 255/FS4/GLF/HSP/HTL/TVL ELECTIVE ................................................................. 3

TOTAL 14

TOTAL CREDITS 64

SECOND SEMESTER: 16 CREDIT HOURS

SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
CRC/CIS ELECTIVE .................................................................................................. 2
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

FOURTH SEMESTER: 17 CREDIT HOURS

HSP 102 Hospitality Service ....................................................................................... 4
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
HSP 102 Hospitality Service ....................................................................................... 4
CRC/CIS ELECTIVE .................................................................................................. 2
HSP 211 Hospitality Law ............................................................................................ 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

FIRST SEMESTER: 16 CREDIT HOURS

CE255/FSA/GLF/HSP/HTL/TVL ELECTIVE ........................................................................... 3
ENG 101 College Composition OR ENG 200 Advanced Composition ................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 17

TOTAL CREDITS 64

hospitalitymanagement, A.A.S. Degree, Hotel Track

FIRST SEMESTER: 16 CREDIT HOURS

HSP 101 Introduction to the Hospitality Industry ......................................................... 3
FSA 106 Food Safety and Sanitation ........................................................................... 1
HTL 105 Hotel Operations ......................................................................................... 1
ENG 101 College Composition OR ENG 200: Advanced Composition ................. 3
SOCIAL SCIENCE ELECTIVE .................................................................................... 3

TOTAL 16

SECOND SEMESTER: 16 CREDIT HOURS

SOCIAL SCIENCE ELECTIVE .................................................................................... 3
NATURAL SCIENCE ELECTIVE ................................................................................ 3
HSP 102 Hospitality Service ....................................................................................... 4
CRC/CIS ELECTIVE .................................................................................................. 2
HSP 211 Hospitality Law ............................................................................................ 3
PHYSICAL/HEALTH EDUCATION ............................................................................ 1

TOTAL 16

THIRD SEMESTER: 17 CREDIT HOURS

LIBERAL ARTS ELECTIVE ............................................................................................ 3
ENG 105 Introduction to Literature OR ENG 250 Professional Communication OR ENG
ELECTIVE ..................................................................................................................... 3
HSP 201 Hospitality Human Resources Management ................................................. 3
GLF 126 Introduction to Golf Equipment .................................................................... 3
GLF 130 Golf Course Maintenance ............................................................................. 3
ACC 101 Accounting Principles I OR ACC 130 Introductory Accounting and Financial
Analysis ..................................................................................................................... 4

TOTAL 19

FOURTH SEMESTER: 14 CREDIT HOURS

HSP 102 Hospitality Service ....................................................................................... 4
GLF 136 Golf Shop Policies and Services .................................................................. 3
CE 260 Cooperative Education – Hospitality Management ...................................... 4
CE 255/FS4/GLF/HSP/HTL/TVL ELECTIVE ................................................................. 3

TOTAL 14

TOTAL CREDITS 64
### THIRD SEMESTER: 16 CREDITS
- **HSP 251 Hospitality Marketing** ................................. 3
- **FSA 103 Culinary Arts I: Fundamentals of Food Preparation** ................................. 5
- **HSP 202 Introduction to Conference and Event Planning** ................................. 3
- **ACC 101 Accounting Principles I OR ACC 130 Introductory Accounting and Financial Analysis** ................................. 4
- **PHYSICAL/HEALTH EDUCATION** ................................. 1

**TOTAL 16**

### FOURTH SEMESTER: 16 CREDITS
- **LIBERAL ARTS ELECTIVE** ................................. 3
- **ENG 105 Introduction to Literature OR ENG 250 Professional Communication OR ENG ELECTIVE** ................................. 3
- **HSP 201 Hospitality Human Resources Management** ................................. 3
- **CE 260 Cooperative Education – Hospitality Management** ................................. 4
- **CE255/FSA/GLF/HSP/HTL/TVL ELECTIVE** ................................. 3

**TOTAL CREDITS 64**

### Hotel Management

This program is designed for the student who is primarily interested in a travel and tourism concentration without the broad liberal arts background. A graduate of this program will have established a basis for a career in the travel and tourism industry, and will be qualified for at least entry-level positions in tour companies, travel agencies, tourism bureaus, cruise lines, car rental companies, and hotels. Cooperative Education provides work-based experience to expand students’ learning opportunities. (Housed in the Hospitality Department)

**Program Learning Outcomes**

1. Identify regulations relevant to the operation of hospitality facilities to ensure compliance with the law.
2. Articulate the necessary steps to executing a successfully-planned event.
3. Describe the basic operating requirements of all the areas in a hotel.
4. Identify and discuss sales and marketing principles and procedures.
5. Demonstrate the ability to apply proper food handling techniques.
6. Apply different cooking techniques and predict their outcome.

**Requirements for Program Entrance**

Placement into ENG 101, TRS 094 or MTH 130 or higher.

### Distribution Requirements

<table>
<thead>
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<th>Credits</th>
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<tr>
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<tr>
<td>FSA 103 Culinary Arts I</td>
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<td>FSA 106 Food Safety and Sanitation</td>
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<td>HTL 206 Hotel Sales and Marketing</td>
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**Total 15**

### SECOND SEMESTER: 16 CREDITS
- **SOCIAL SCIENCE ELECTIVE** ................................. 3
- **FSA/BIO 117 Basic Consumer Nutrition** ................................. 3
- **HSP 102 Hospitality Service** ................................. 4
- **CRC/CIS ELECTIVE** ................................. 2
- **FSA 107 Menu Planning** ................................. 3
- **PHYSICAL/HEALTH EDUCATION** ................................. 1

**TOTAL 16**

### FIRST SEMESTER: 16 CREDIT HOURS
- **HSP 101 Introduction to the Hospitality Industry** ................................. 3
- **FSA 106 Food Safety and Sanitation** ................................. 3
- **ENG 101 College Composition I** ................................. 5
- **MTH 104/130/160/165 or higher** ................................. 3
- **PHYSICAL/HEALTH EDUCATION** ................................. 1

**TOTAL 16**

### THIRD SEMESTER: 16 CREDITS
- **SOCIAL SCIENCE ELECTIVE** ................................. 3
- **ENG 105 Introduction to Literature OR ENG 250 Professional Communication OR ENG ELECTIVE** ................................. 3
- **FSA 205 Purchase, Storage and Handling** ................................. 3
- **ACC 101 Accounting Principles I OR ACC 130 Introductory Accounting and Financial Analysis** ................................. 4
- **CE255/FSA/GLF/HSP/HTL/TVL ELECTIVE** ................................. 3

**TOTAL 16**

### FOURTH SEMESTER: 15 CREDITS
- **LIBERAL ARTS ELECTIVE** ................................. 3
- **FSA 203 Culinary Arts II: Advanced Food Preparation** ................................. 3
- **HSP 201 Hospitality Human Resources Management** ................................. 3
- **CE 260 Cooperative Education – Hospitality Management** ................................. 4

**TOTAL 15**

**TOTAL CREDITS 63**

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*Students can take the Cooperative Education course during a semester or during the summer.*

**NOTE:** Please see the Hospitality Management A.A.S. Degree – Hotel, for a degree option to the Certificate program.

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NOTE: The Hospitality Department offers the following certificate programs (listed alphabetically in the Catalog):

- Culinary Arts
- Food Management
- Hotel Management
- Travel and Tourism
CERTIFICATE PROGRAM

CIP Code: 44.0000
MCC Program Code: HU02
NYSED Code (DCC): 01250

Program Learning Outcomes
1) Identify generic helping skills utilized in the Human Services field.
2) Demonstrate as appropriate the helping skills utilized in the Human Services field.
3) Assess when the various applications of the Human Services helping skills are used effectively in an agency setting.
4) Apply good judgment and professionalism as supported in the “Ethical Standards of Human Services Professionals” in areas similar to but not necessarily: basic client rights to privacy, effective treatment, or ethical issues.
5) Document behaviors accurately in cogently written statements.
6) Develop an action-oriented Human Services assessment.
7) Conduct a thorough study of a community agency (including mission statement, agency history, organizational structure, and funding).
8) Define the various roles of a Human Services worker in providing services to clients in community agencies.

Requirements for Program Entrance
Elementary Algebra with Geometry (or Math 098 at MCC). Placement into English 101.

FIRST SEMESTER: 6 Credit Hours
HUM 101 Introduction to Human Services* AND HUM 111 Field Work In Human Services I* 4
Total 6

SECOND SEMESTER: 6 Credit Hours
HUM 102 Basic Helping Skills** AND HUM 112 Field Work in Human Services II** 4
Total 6

THIRD SEMESTER: 6 Credit Hours
HUM 201 Models of Helping** AND HUM 211 Field Work in Human Services III** 4
Total 6

FOURTH SEMESTER: 6 Credit Hours
HUMAN SERVICES ELECTIVE*** 3
HUMAN SERVICES ELECTIVE*** 3
Total 6

TOTAL CREDITS 24

* A minimum grade of C- or higher is required in all HUM courses to graduate from the program.
** HUM 106, HUM 116 can be substituted for HUM 102, HUM 112 or HUM 201, HUM 211.
*** Select 2 of the following electives totaling 6 credits: Any ACD, ECE courses and HUM electives with the exception of HUM 100.

A.A.S. DEGREE

CIP Code: 44.0000
MCC Program Code: HU01
NYSED Code (DCC): 01249

Program Learning Outcomes
1) Identify generic helping skills utilized in the Human Services field.
2) Demonstrate as appropriate the helping skills utilized in the Human Services field.
3) Assess when the various applications of the Human Services helping skills are used effectively in an agency setting.
4) Apply good judgment and professionalism as supported in the “Ethical Standards of Human Services Professionals” in areas similar to but not necessarily: basic client rights to privacy, effective treatment, or ethical issues.
5) Document behaviors accurately in cogently written statements.
6) Develop an action-oriented Human Services assessment.
7) Conduct a thorough study of a community agency (including mission statement, agency history, organizational structure, and funding).
8) Define the various roles of a Human Services worker in providing services to clients in community agencies.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC). Placement in English 101.
FIRST SEMESTER: 17 Credit Hours

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<tr>
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<td>MTH 104 Intermediate Algebra or higher</td>
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Total 17

SECOND SEMESTER: 15 Credit Hours

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Total 15

THIRD SEMESTER: 15 Credit Hours

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Total 15

FOURTH SEMESTER: 15 Credit Hours

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<td>SOCIAL SCIENCE ELECTIVE*</td>
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<tr>
<td>ELECTIVE</td>
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</tbody>
</table>

Total 15

TOTAL CREDITS 62

For transfer to SUNY College, choose courses approved as meeting SUNY General Education Requirements.

* Recommended Courses: PSY 101, SOC 101
** Program requirements are a passing grade of C- or higher.
*** HUM 106, 116 can be substituted for HUM 102,112 or HUM 201,211.
****Select 2 of the following electives totaling 6 credits: Any ACD, ECE courses and
HUM electives with the exception of HUM 100.
INFORMATION AND NETWORK TECHNOLOGY

A. A. S. DEGREE

CIP Code: 11.9999
MCC Program Code: IN01
NYSED Code (BRI): 275400
NYSED Code (DCC): 275410

Description

The Information and Network Technology A.A.S. degree program is designed to meet the needs of students interested in beginning their technical careers after two years of study and focuses on the application of information technology across multiple domains. This program is designed to assist students in the development of skills and knowledge in technical areas that have practical value in the global workplace. This program provides students with a broad-based foundation in information technology and includes specializations in cybersecurity, computer networking, cloud computing. Curricula in this program teaches students problem solving, critical thinking, communication and teamwork skills. The courses in this program provide students with opportunities for practical applications of classroom theory in a project-based lab environment that encourages them to apply their classroom instruction. Using a core-specialization framework the program encourages students to first, develop a solid foundation in information technology and second, to develop workplace competencies in the context of a specific technical area.

Program Learning Outcomes

1. Use information technology components to design and build information systems.
2. Apply critical thinking skills to design, develop, implement, analyze, and operate complex information systems.
3. Design and implement security measures related to the processing and transfer of information using industry recognized methodologies.
4. Utilize networking concepts and frameworks in the design, implementation, and maintenance of sophisticated information transfer systems.
5. Utilize cloud computing concepts and frameworks in the design, implementation, and maintenance of traditional and cloud-based computing solutions.

Requirements for Program Entrance

High school diploma, GED, or equivalent. Algebra (1 year high school math or placement into Level 5 Math at MCC). English proficiency.

CYBERSECURITY

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition ................................................................. 3
MTH 140 Technical Mathematics I or MTH 165 College Algebra (or higher) ........................................... 3
CRC 101 Practical Computer Literacy ..................................................... 3
CPT 115 Network Fundamentals .......................................................... 3
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE ....................... 3

Total 15

SECOND SEMESTER: 16 Credit Hours

CPT 114 Problem Solving and Robotics .................................................. 3
CRC 133 Cloud Computing Design and Implementation ................. 3
CPT 125 Network Perimeter Security .................................................. 3
ENG 251 Technical Writing ................................................................. 3
CPT 120 Introduction to Cybersecurity .............................................. 4

Total 16

THIRD SEMESTER: 16 Credit Hours

CPT 125 Physical Security ..................................................................... 3
SCR 211 Computer Security I .............................................................. 3
PHL 105 Technology and Values ......................................................... 3
CRC 132 A Global Perspective on Mobile and Cloud Computing ............ 3
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE .................... 3
PHYSICAL/HEALTH EDUCATION ....................................................... 1

Total 16

FOURTH SEMESTER: 15 Credit Hours

CPT 215 Routing Fundamentals .......................................................... 3
CRC 133 Cloud Computing Design and Implementation ................. 3
CPT 114 Problem Solving and Robotics .................................................. 3
ENG 251 Technical Writing ................................................................. 3
CPT 120 Introduction to Cybersecurity .............................................. 4

Total 16

FOURTH SEMESTER: 15 Credit Hours

CPT 215 Advanced Networking .......................................................... 3
CPT 217 LAN Switching ................................................................. 3
CRC 231 Mobile Computing .............................................................. 3
PHL 105 Technology and Values ......................................................... 3
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE .................... 3
PHYSICAL/HEALTH EDUCATION ....................................................... 1

Total 16

FOURTH SEMESTER: 15 Credit Hours

CPT 215 WAN Systems ...................................................................... 3
CPT 220 Applied Security Concepts ...................................................... 4
CPT 225 Network Perimeter Security .................................................. 4
SPC 143 Small Group Communication ........................................... 3
PHYSICAL/HEALTH EDUCATION ....................................................... 1

Total 16

FOURTH SEMESTER: 15 Credit Hours

CPT 215 WAN Systems ...................................................................... 3
CPT 220 Applied Security Concepts ...................................................... 4
CPT 225 Network Perimeter Security .................................................. 4
SPC 143 Small Group Communication ........................................... 3
PHYSICAL/HEALTH EDUCATION ....................................................... 1

Total 15

TOTAL CREDITS 62
### Academic Programs

#### CLOUD AND MOBILE COMPUTING

**FIRST SEMESTER: 15 Credit Hours**

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<tr>
<td>ENG 101 College Composition</td>
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<td>CRC 101 Practical Computer Literacy</td>
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<td>CRC 230 Cloud Computing</td>
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<td>SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE</td>
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**Total 15**

**SECOND SEMESTER: 16 Credit Hours**

<table>
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<td>ENG 251 Technical Writing</td>
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**Total 16**

**THIRD SEMESTER: 16 Credit Hours**

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<tr>
<td>CPT 216 Advanced Networking</td>
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<tr>
<td>CRC 132 A Global Perspective on Mobile and Cloud Computing</td>
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<td>CRC 231 Mobile Computing</td>
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**Total 16**

**FOURTH SEMESTER: 15 Credit Hours**

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</table>

**Total 15**

**TOTAL CREDITS 62**

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### INFORMATION TECHNOLOGY

**A.S. DEGREE**

**CIP Code:** 11.0103  
**MCC Program Code:** IT01  
**NYSED Code (BRI):** 28194

#### Description

This program has been designed to give the student a solid foundation in information technology to foster success in obtaining a four-year degree. The student will gain a background in networking, programming, database design, and web site design. This degree program also provides a solid math background required to develop problem solving skills.

(Housed in the Information and Computer Technologies Department)

#### Program Learning Outcomes

1. Apply knowledge of computing and mathematics appropriate to the discipline
2. Use the Systems Analysis Design paradigm to critically analyze a problem
3. Solve problems (programming networking database and Web design) in the Information Technology environment.
4. Function effectively on teams to accomplish a common goal
5. Demonstrate professional behavior
6. Demonstrate ethical conduct
7. Explain legal codes and standards associated with information technology
8. Discuss IT-oriented security issues and protocols

#### Requirements for Program Entrance

Intermediate Algebra with Trigonometry (or Math 104 at MCC). Typing or keyboarding recommended.

**Distribution Requirements**

**FIRST SEMESTER: 15 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>CPT 115 Introduction to Networks</td>
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<tr>
<td>ENG 101 College Composition</td>
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<td>PHL 105 Technology and Values</td>
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<tr>
<td>MTH 172 Technical Discrete Mathematics</td>
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<td>SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE*</td>
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**Total 15**

**SECOND SEMESTER: 16 Credit Hours**

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<td>MTH 160 Statistics</td>
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**Total 16**

**THIRD SEMESTER: 16 Credit Hours**

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<tr>
<td>CIS 201 Web Site Programming and Design</td>
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<td>CIS 209 Systems Analysis and Design</td>
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<td>CSC 223 Computer Programming &quot;C++&quot; OR</td>
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<tr>
<td>CSC 225 Advanced JAVA Programming</td>
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<tr>
<td>ENG 251 Technical Communication OR</td>
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<td>MTH 161 Statistics II</td>
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<td>SUNY GENERAL EDUCATION AMERICAN HISTORY OR WESTERN CIVILIZATION OR OTHER WORLD CIVILIZATIONS ELECTIVE</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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**Total 16**

**FOURTH SEMESTER: 16 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CIS 211 Applied Database Concepts OR</td>
<td>3</td>
</tr>
<tr>
<td>CIS 221 Applied Database Concepts with an Oracle Database</td>
<td>3</td>
</tr>
<tr>
<td>CSC 206 Digital Computer Organization OR</td>
<td>3</td>
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<tr>
<td>CSC 215 Introduction to Linux</td>
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</tr>
<tr>
<td>PROGRAM ELECTIVE**</td>
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<tr>
<td>SUNY GENERAL EDUCATION ARTS OR FOREIGN LANGUAGE ELECTIVE</td>
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<tr>
<td>SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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</tr>
</tbody>
</table>

**Total 16**

**TOTAL CREDITS 63**

* SUNY Social Science Electives: ECO 111 or ECO 112 recommended.
** PROGRAM ELECTIVE: Choose one of CIS 110, CRC 125, CSC 206, CSC 214, CSC 215, CSC 223, CSC 225, MTH 161 or higher.

NOTE: See SUNY General Education requirements for students transferring to a four-year SUNY school.

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www.monroeccc.edu/go/academicprograms
INTERIOR DESIGN
A.A.S. DEGREE

CIP Code: 50.0408
MCC Program Code: ID01
NYSED Code (BRI): 92159

Description
The Interior Design program combines a study of the creative process with the practical requirements of materials, space planning, and building codes. Emphasis is placed upon using a variety of tools, including drawings and computer processes, to explore and communicate the solutions to design problems. Projects addressing both residential and commercial needs are incorporated into the program to provide a broad understanding of the field of interior design.

Admission and continuation in the interior design program is conditional upon completion of the following requirements:

A) A grade of C or better in High School Geometry or Math A exam.
B) Completion of required ESOL or Transitional Studies courses.

In addition, an understanding of the use of computers is expected. Those students who do not have such knowledge are encouraged to complete AAD 104 - Intro to Graphic Design, 2D prior to enrolling in IDE160- CAD for Interiors.

(Housed in Visual and Performing Arts Department)

Program Learning Outcomes
1) Explain the contributions and requirements of the practice of design in contemporary society.
2) Identify the social political and physical influences affecting historical changes in design of the built environment.
3) Read and interpret construction drawings and documents.
4) Incorporate the elements and principles of design and color theory into design decisions.
5) Apply a broad range of materials and products that include consideration of sustainability.
6) Produce competent presentation materials and apply both oral and visual material to the presentation of ideas.
7) Design solutions that consider structural and mechanical systems vertical circulation systems and methods of construction.
8) Develop design solutions in a collaborative environment.

Requirements for Program Entrance
Algebra (one-year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours
IDE 101 Introduction to Interior Design I ................................................................. 3
IDE 131 Building Information Modeling ................................................................. 3
ART 104 Drawing I ................................................................. 3
ART 109 Two Dimensional Design ................................................................. 3
ENG 101 College Composition OR ENG 200 Advanced Composition ................................................................. 3
Total 15

SECOND SEMESTER: 17 Credit Hours
IDE 102 Introduction to Interior Design II ................................................................. 3
IDE 132 Digital Visualization Techniques ................................................................. 3
AAD 104 Introduction to Graphic Design 2D ................................................................. 3
ART 125 Three Dimensional Design ................................................................. 3
MTH 150 Survey of Mathematics (or higher) ................................................................. 3
PHYSICAL/HEALTH EDUCATION ................................................................. 2
Total 17

THIRD SEMESTER: 15 Credit Hours
IDE 201 Interior Design III ....................................................................................... 3
ART 118 Perspectives of Art History I: Ancient ............................................................... 3
IDE 270 Interior Design Seminar ....................................................................................... 3
SOCIAL SCIENCE ELECTIVE ....................................................................................... 3
PROGRAM ELECTIVE** ....................................................................................... 3
Total 15

FOURTH SEMESTER: 15 Credit Hours
IDE 203 Interior Design IV ....................................................................................... 3
ART 119 Perspectives of Art History II: Modern ............................................................... 3
IDE 250 Color and Light ....................................................................................... 3
PROGRAM ELECTIVE** ....................................................................................... 3
NATURAL SCIENCE ELECTIVE ....................................................................................... 3
Total 15

TOTAL CREDITS 62

** PROGRAM ELECTIVES (complete one sequence):

For Transfer:
ART 130 Sculpture I ....................................................................................... 3
AAD 160 Graphic Illustration: Vector Drawing ............................................................... 3

For Professional Study:
FPT 107 Introduction to the NYS Building Codes ............................................................... 3
SPC 142 Public Speaking ....................................................................................... 3

INTERNATIONAL BUSINESS
A.A.S. DEGREE

Description
See BUSINESS: INTERNATIONAL BUSINESS

www.monroecc.edu/go/academicprograms
LAW ENFORCEMENT

CERTIFICATE PROGRAM

CIP Code: 43.0107
NYSED Code (DCC): 01252

Description

This certificate program in law enforcement develops the knowledge, skills and abilities in the law, the process of the criminal justice system, the scientific method of criminal investigation, applied psychology, report writing, interpersonal communication skills, human interaction techniques, and career specific physical and judgmental skills necessary for law enforcement agents operating in a free society.

Enrollment is limited to recruit officers employed or sponsored by law enforcement agencies attending the New York State Basic Course for Police offered at the Public Safety Training Center.

(Housed in Public Safety Training Center)

Program Learning Outcomes

1) Successfully complete all mandated requirements as prescribed by the New York State Division of Criminal Justice Services: Basic Course for Police Officers.

Requirements for Program Entrance

Enrollment is limited to recruit officers employed or sponsored by law enforcement agencies attending the NY State Basic Course for Police.

Distribution Requirements

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLE 101 Fundamentals of Policing</td>
<td>14</td>
</tr>
<tr>
<td>PLE 102 Police Proficiencies and Procedures</td>
<td>18</td>
</tr>
<tr>
<td>PLE 103 The Community and Policing: Serving Special Populations</td>
<td>14</td>
</tr>
<tr>
<td>PLE 104 Practicum in Policing</td>
<td>1 or 9</td>
</tr>
</tbody>
</table>

TOTAL CREDITS 47-55

NOTE: MCC has developed two courses to respond to field-based training: a one-credit option (PLE 104) and a nine-credit option (PLE 204). Students must meet with their faculty advisor to select the correct course to meet the field training hours required by their employers.

NOTE: An articulation agreement exists with the Department of Law and Criminal Justice in which the certificate program courses are awarded credit in the A.A.S.-Criminal Justice/Police Science and the A.S.-Criminal Justice degrees upon matriculation. In some cases this credit is contingent upon successful completion of capping courses.

LIBERAL ARTS AND SCIENCES: ADOLESCENCE EDUCATION

(TEACHER EDUCATION TRANSFER)

A.A. DEGREE

CIP Code: 24 0199
NYSED Code (BRI): 29445
NYSED Code (DCC): 29449

Description

This program is designed to support and encourage progress toward a baccalaureate degree and NYS teacher certification for students interested in pursuing teaching as a career. The Liberal Arts and Sciences: Adolescence Education (Teacher Education Transfer) degree is specifically for students interested in teaching grade levels 7 through 12.

Preparing to become a teacher is an exciting and challenging endeavor. This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom, while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing Education classes, General Education requirements, and pursuing courses within the students’ selected academic major.

MCC students also have the opportunity to apply for membership into Pi Lambda Theta, the International Honor Society and Professional Association in Education. MCC is the first community college in the nation invited to join this honor society.

(Housed in the Education Department)

Program Learning Outcomes

1) understand and be conversant about the main philosophical and sociological ideas and trends that have influenced education as well as be able to analyze their application and importance for teaching today.
2) identify professional expectations and responsibilities and articulate a basic understanding of teaching as a career.
3) analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4) comprehend the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

Requirements for Program Entrance

Pre-Algebra or TRS 094 at MCC (Level 3).

Distribution Requirements

<table>
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</thead>
<tbody>
<tr>
<td>ENG 101 College Composition OR ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>EDU 100 Introduction to the Teaching Profession</td>
<td>1</td>
</tr>
<tr>
<td>PSY 101 Introductory Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/CONCENTRATION ELECTIVE+++</td>
<td>3</td>
</tr>
<tr>
<td>MTH 150 Survey of Mathematics OR HIGHER</td>
<td>3</td>
</tr>
<tr>
<td>FOREIGN LANGUAGE ELECTIVE</td>
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</tr>
</tbody>
</table>

Total 16

SECOND SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 200 Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>PSY 202 Developmental Psychology-Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/CONCENTRATION ELECTIVE+++</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE OR SUNY GENERAL EDUCATION-WESTERN CIVILIZATION**</td>
<td>3</td>
</tr>
<tr>
<td>FOREIGN LANGUAGE ELECTIVE</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 15
THIRD SEMESTER: 15 Credit Hours
EDU 208 Guided Fieldwork in Education ......................................................... 3
HUMANITIES ELECTIVE OR
SUNY GENERAL EDUCATION - THE ARTS* ................................................. 3
SOCIAL SCIENCE ELECTIVE OR
SUNY GENERAL EDUCATION-AMERICAN HISTORY** ................................. 3
MAJOR/CONCENTRATION ELECTIVE++++ .................................................. 3
NATURAL SCIENCE ELECTIVE*** ................................................................. 3

Total 15

FOURTH SEMESTER: 17 Credit Hours
LIBERAL ARTS AND SCIENCES ELECTIVE+ .................................................... 3
MAJOR/CONCENTRATION ELECTIVES++++ .................................................. 3 or higher
SOCIAL SCIENCE ELECTIVE OR
SUNY GENERAL EDUCATION-OTHER WORLD CIVILIZATION*** .............. 3
PHYSICAL/HEALTH EDUCATION++ ............................................................... 2
LITERATURE ELECTIVE .................................................................................. 3
NATURAL SCIENCE ELECTIVE WITH LAB**** ........................................... 3 or higher

Total 17

TOTAL CREDITS 63+++ 

NOTE: For transfer to a SUNY College, check courses approved as meeting SUNY General Education Requirements.

Courses advised for transfer (see appropriate 2x2 audit sheet):
* For transfer to a SUNY college; SUNY General Education-Arts
** For transfer to a SUNY college: Humanities course
*** For transfer to a SUNY college: SUNY General Education-Arts
**** For transfer to a SUNY college: SUNY General Education-Other World Civilizations.
***** For transfer to a SUNY College: Specific General Education Requirements

MTH 150 is not an appropriate mathematics course for students pursuing teacher certification in the mathematics/science/technology field. Students should consult with an advisor for selection of proper mathematics placement and subsequent coursework.

**** Minimum of one lab science
+ PSY 261 Psychology of Learning and Behavior Disorders is strongly recommended for transfer
++ HED 130 Foundations of Personal Health and Wellness is strongly recommended for transfer
+++ Through careful advisement, students may be able to complete as much as 18 credit hours in some concentrations/majors prior to transfer.
++++ Courses selected within one academic area (concentration/major) chosen with an advisor, based upon transfer school requirements. Some of the required credits may fulfill other degree requirements.

LIBERAL ARTS AND SCIENCES: CHILDHOOD EDUCATION
(TEACHER EDUCATION TRANSFER)

A.A. DEGREE

TOTAL CREDITS 62+++ 

CIP Code: 24.01999
MCC Program Code: ECD1
NYSED Code (BRI): 29448
NYSED Code (DCC): 29450

Description
This program is designed to support and encourage progress toward a baccalaureate degree and NYS teacher certification for students interested in pursuing teaching as a career. The Liberal Arts and Sciences: Childhood Education (Teacher Education Transfer) degree is specifically for students interested in teaching grades 1-6.

Preparing to become a teacher is an exciting and challenging endeavor. This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom, while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing Education classes, General Education requirements, and pursuing courses within the students’ selected academic major.

MCC students also have the opportunity to apply for membership into Pi Lambda Theta, the International Honor Society and Professional Association in Education. MCC is the first community college in the nation invited to join this honor society.

(Housed in the Education Department)

Program Learning Outcomes
1) understand and be conversant about the main philosophical and sociological ideas and trends that have influenced education as well as be able to analyze their application and importance for teaching today.
2) identify professional expectations and responsibilities and articulate a basic understanding of teaching as a career.
3) analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4) comprehend the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

Requirements for Program Entrance
Intermediate Algebra with Trigonometry or MTH 104 (Level 6).

Distribution Requirements

FIRST SEMESTER: 16 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ......................... 3
EDU 100 Introduction to the Teaching Profession .............................................. 1
PSY 101 Introductory Psychology ....................................................................... 3
MAJOR/CONCENTRATION ELECTIVE++++ .................................................. 3 or higher
MTH 155 Mathematics for Elementary Teachers I ............................................ 3
NATURAL SCIENCE ELECTIVE*** ................................................................. 3

Total 16

SECOND SEMESTER: 15 Credit Hours
EDU 200 Foundations of Education ................................................................. 3
PSY 201 Developmental Psychology-Child ....................................................... 3
MAJOR/CONCENTRATION ELECTIVE++++ .................................................. 3
NATURAL SCIENCE ELECTIVE WITH LAB**** ........................................... 3 or higher
MTH 156 Mathematics for Elementary Teachers II ......................................... 3

Total 15

THIRD SEMESTER: 16 Credit Hours
EDU 208 Guided Fieldwork in Education ......................................................... 3
HUMANITIES ELECTIVE OR
SUNY GENERAL EDUCATION - THE ARTS* ................................................. 3
HIS 111 United States History I - to 1865 -WR OR
HIS 112 United States History II - since 1865 -WR OR
MAJOR/CONCENTRATION ELECTIVE+++ ................................................... 2
FOREIGN LANGUAGE ELECTIVE ................................................................. 3
PHYSICAL/HEALTH EDUCATION++ ............................................................... 2

Total 16

FOURTH SEMESTER: 15 Credit Hours
LIBERAL ARTS AND SCIENCES ELECTIVE+ .................................................... 3
SOCIAL SCIENCE ELECTIVE OR
SUNY GENERAL EDUCATION-WESTERN CIVILIZATION*** ..................... 3
LITERATURE ELECTIVE* ................................................................................. 3
FOREIGN LANGUAGE ELECTIVE ................................................................. 3
SOCIAL SCIENCE ELECTIVE OR
SUNY GENERAL EDUCATION-OTHER WORLD CIVILIZATION*** ............ 3

Total 15

TOTAL CREDITS 62+++
LIBERAL ARTS AND SCIENCES: EARLY CHILDHOOD EDUCATION (TEACHER EDUCATION TRANSFER) A.A. DEGREE

CIP Code: 13.1210
NYSED Code (BRI): 29452
NYSED Code (DCC): 29451

Description

This program is designed to support and encourage progress toward a baccalaureate degree and NYS teacher certification for students interested in pursuing teaching as a career. The Liberal Arts and Sciences: Early Childhood Education (Teacher Education Transfer) degree is specifically for students interested in teaching grade levels Birth through Second Grade (0-2).

Preparing to become a teacher is an exciting and challenging endeavor. This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom, while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing Education classes, General Education requirements, and pursuing courses within the students’ selected academic major.

MCC Students also have the opportunity to apply for membership into Pi Lambda Theta, the International Honor Society and Professional Association in Education. MCC is the first community college in the nation invited to join this honor society. (Housed in the Education Department)

Program Learning Outcomes

1) understand and be conversant about the main philosophical and sociological ideas and trends that have influenced education as well as be able to analyze their application and importance for teaching today.
2) identify professional expectations and responsibilities and articulate a basic understanding of teaching as a career.
3) analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4) comprehend the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

Requirements for Program Entrance

Intermediate Algebra with Trigonometry or MTH 104 (Level 6).

Distribution Requirements

<table>
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<th>Credit Hours</th>
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<td>FIRST SEMESTER: 16 Credit Hours</td>
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<tr>
<td>ENG 101 College Composition OR</td>
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</tr>
<tr>
<td>ENG 200 Advanced Composition</td>
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<tr>
<td>EDU 100 Introduction to the Teaching Profession</td>
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<tr>
<td>PSY 101 Introductory Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/CONCENTRATION ELECTIVE++++</td>
<td>3 or higher</td>
</tr>
<tr>
<td>MTH 155 Mathematics for Elementary Teachers I</td>
<td>3</td>
</tr>
<tr>
<td>NATURAL SCIENCE ELECTIVE WITH LAB****</td>
<td>3 or higher</td>
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<td><strong>Total 16</strong></td>
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SECOND SEMESTER: 15 Credit Hours

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<td>3</td>
</tr>
<tr>
<td>MAJOR/CONCENTRATION ELECTIVE++++</td>
<td>3 or higher</td>
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<tr>
<td>NATURAL SCIENCE ELECTIVE***</td>
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<tr>
<td>MTH 156 Mathematics for Elementary Teachers II</td>
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<td><strong>Total 15</strong></td>
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THIRD SEMESTER: 16 Credit Hours

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<th>Credit Requirements</th>
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<tr>
<td>HUMANITIES ELECTIVE OR</td>
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<tr>
<td>SUNY GENERAL EDUCATION - THE ARTS**</td>
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<tr>
<td>HIS 111 United States History I - to 1865 - WR OR</td>
<td></td>
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<tr>
<td>HIS 112 United States History II - since 1865 - WR</td>
<td></td>
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<td>MAJOR/CONCENTRATION ELECTIVE++</td>
<td>3 or higher</td>
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<tr>
<td>FOREIGN LANGUAGE ELECTIVE</td>
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<td>PHYSICAL/HEALTH EDUCATION++</td>
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FOURTH SEMESTER: 15 Credit Hours

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<td>LIBERAL ARTS AND SCIENCES ELECTIVE+</td>
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<td>SOCIAL SCIENCE ELECTIVE OR</td>
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</tr>
<tr>
<td>SUNY GENERAL EDUCATION-WESTERN CIVILIZATION***</td>
<td>3</td>
</tr>
<tr>
<td>LITERATURE ELECTIVE*</td>
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<tr>
<td>FOREIGN LANGUAGE ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE OR</td>
<td></td>
</tr>
<tr>
<td>SUNY GENERAL EDUCATION-OTHER WORLD CIVILIZATION***</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total 15</strong></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDITS 62+++

NOTE: For transfer to a SUNY College, check courses approved as meeting SUNY General Education Requirements.

Courses advised for transfer (see appropriate 2+2 audit sheet):

* ENG 215 Children’s Literature or other literature course
** For transfer to a SUNY college: SUNY General Education-Arts
*** For transfer to a private college: Humanities course
**** For transfer to a SUNY college: SUNY General Education-Western Civilization, Other World Civilizations.

For transfer to a SUNY college: Cognates and Specific General Education Requirements, i.e., American History (HIS 111/112), American National Government (POS 102), Introduction to Economics (ECO 101)

*** SCI 131 Integrated Science for Future Teachers I - The Physical World and SCI 132 Integrated Science for Future Teachers II - The Living World recommended
+ PSY 261 Psychology of Learning and Behavior Disorders is strongly recommended for transfer
++ Through careful advisement, students may be able to complete as much as 18 credit hours in some concentrations/majors prior to transfer.

NOTE: For transfer to a SUNY college, check courses approved as meeting SUNY General Education Requirements.

Courses advised for transfer (see appropriate 2+2 audit sheet):

* ENG 215 Children’s Literature or other literature course
** For transfer to a SUNY college: SUNY General Education-Arts
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For transfer to a SUNY college: Cognates and Specific General Education Requirements, i.e., American History (HIS 111/112), American National Government (POS 102), Introduction to Economics (ECO 101)

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**** For transfer to a SUNY college: SUNY General Education-Western Civilization, Other World Civilizations.

For transfer to a SUNY college: Cognates and Specific General Education Requirements, i.e., American History (HIS 111/112), American National Government (POS 102), Introduction to Economics (ECO 101)

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For transfer to a SUNY college: Cognates and Specific General Education Requirements, i.e., American History (HIS 111/112), American National Government (POS 102), Introduction to Economics (ECO 101)

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LIBERAL ARTS AND SCIENCES: EDUCATION

A.A. DEGREE

Description

The SUNY Teacher Education Transfer Template (TETT) is a State University of New York System articulation project designed to facilitate transfer between participating SUNY Associate Degree-Granting Institutions (ADGIs), such as Monroe Community College and those SUNY baccalaureate campuses with teacher education programs, consistent with the Chancellor’s initiative, A New Vision in Teacher Education: Agenda for Change in SUNY’s Teacher Preparation Programs (http://www.suny.edu/sunypp/documents.cfm?doc_id=191). The goal is both to eliminate course incompatibilities that can hinder student progress and to simplify advisement at all campuses involved in teacher education. The TETT project calls for a model A.A. or A.S. curriculum consisting of three components for students aspiring to earn bachelor degrees with recommendation for NYS teacher certification in Childhood or Early Childhood Education or in Adolescence Education:

General Education Core: complete SUNY-GER plus an additional three credits of Foreign Language (33 credit hours); See the specific Major/Concentration information for details regarding how the general education core is met for a specific discipline.

Major or Concentration: at present the TETT project web site covers coursework in seven majors/concentrations for Adolescence Education - Biology, Chemistry, Earth Science, English, History/Social Studies, Mathematics, Physics. The Early Childhood and Childhood Education (Teacher Education Transfer) programs at Monroe Community College offers concentrations in English, General Science, History/Social Studies, and Mathematics;

Pedagogical Core: one Psychology course (Child or Adolescent) and Foundations of Education (6 credit hours).

When a SUNY ADGI student completes these three components within a particular sequence of coursework, s/he is assured that the represented coursework will transfer to one of the SUNY designated campuses offering baccalaureate teacher education programs. The TETT project is a SUNY System articulation initiative and therefore assures that a transferring student’s coursework is accepted in whole if the student meets the criteria for admission to a parallel program at a participating SUNY baccalaureate campus. The TETT project does not guarantee admission to a particular teacher education baccalaureate program or institution. Information pertaining to the admission requirements for participating senior college programs is provided as part of the guidance on the TETT web site, http://www.suny.edu/tett/. Students are also advised to visit the web pages of teacher education campuses of interest, accessible from this site.

In the following pages, the three Teacher Education Transfer degree programs offered by Monroe Community College are detailed. Students matriculated in any of these programs are reminded that specific courses should be selected in close consultation with an advisor and based on the requirements of the student’s target baccalaureate institution.

Program Learning Outcomes

1) understand and be conversant about the main philosophical and sociological ideas and trends that have influenced education as well as be able to analyze their application and importance for teaching today.
2) identify professional expectations and responsibilities and articulate a basic understanding of teaching as a career.
3) analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4) comprehend the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

LIBERAL ARTS AND SCIENCES: GENERAL STUDIES

A.S. DEGREE

CIP Code: 24.0102
NYSED Code (BRI): 02067
NYSED Code (DCC): 22589

Description

This program is designed for students seeking a large measure of flexibility in selecting courses consistent with their individual needs and interests while simultaneously acquiring a general education foundation in the liberal arts and sciences. A minimum of 32 credit hours of course work must be taken in the arts/humanities, the social sciences, the natural sciences, and mathematics with a reasonable distribution.

Students uncertain about their long-term educational and career plans will find that the General Studies program provides a valuable opportunity to explore and test their interests. Other students with special educational goals relating to either immediate employment upon graduation or further study toward a baccalaureate degree should consider this program to meet their needs.

Students intending to use the General Studies program as a basis for baccalaureate study and transfer should make certain that their course selections meet the requirements of the colleges to which they plan to transfer.

Program Learning Outcomes

1) Discuss the aesthetic attributes of art nature music language culture or literature.
2) Reflect on issues concerning the human condition in local or global contexts.
3) Conduct independent discipline-based research.
4) Analyze information using established or prescribed methods or principles.
5) Synthesize information drawn from a variety of resources or experiences.
6) Work collaboratively to achieve a common goal.

Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

HUMANITIES: 9 Credit Hours

ENG 101 College Composition OR
ENG 200 Advanced Composition .................................................. 3
LITERATURE ELECTIVE .......................................................... 3
HUMANITIES ELECTIVE ......................................................... 3
Total 9

SOCIAL SCIENCE: 12 Credit Hours

ANY FOUR SOCIAL SCIENCE COURSES .................................... 12
Total 12

NATURAL SCIENCE AND MATHEMATICS: 11 Credit Hours (minimum)

ONE MATHEMATICS COURSE (MTH 150 or higher) .................. 3-4
TWO NATURAL SCIENCE COURSES ...................................... 6-8
Total 11

ELECTIVES: 28-29 Credit Hours

ELECTIVES ............................................................. 28-29
Total 28-29
LIBERAL ARTS AND SCIENCES: HUMANITIES

A.A. DEGREE

CIP Code: 24.0103
NYSED Code (BRI): 34488
NYSED Code (DCC): 34489

Description

The Humanities degree program is designed to provide students with a rigorous introduction to the humanities as preparation for a variety of professions such as college level teaching, law, writing, and human resources management. The curriculum balances the need for broad background with an opportunity for an early experience in one of the following tracks: English literature, Philosophy, and Popular Culture. The Popular Culture track is unique, combining offerings from literature, cultural studies, and communication.

Program Learning Outcomes

1. Demonstrate an understanding of the central concepts and important terminology associated with the study of Western Humanities through a variety of written assignments, class discussions, and/or exams.
2. Demonstrate an understanding of the literary, philosophical, artistic, and architectural significance of the classic works and artifacts of Western culture from antiquity through Postmodernism using written assignments, class discussions, projects, and/or exams.

Requirements for Program Entrance

Algebra or placement into Level 4 Math at MCC. Placement into ENG 101 or ENG 200.

Distribution Requirements

LITERATURE OPTION

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
HMN 101 Humanities: Experiencing Culture - WR ........................................................................... 3
MTH 150 Survey of Mathematics or higher ...................................................................................... 3
SUNY GENERAL EDUCATION NATURAL SCIENCES ELECTIVE .................................................. 3
SUNY GENERAL EDUCATION FOREIGN LANGUAGE ELECTIVE ............................................. 3

Total 15

SECOND SEMESTER: 15 Credit Hours

SUNY GENERAL EDUCATION AMERICAN HISTORY ELECTIVE .................................................. 3
ENG 100 level literature course ............................................................................................................ 3
ENG 218 Introduction to Shakespeare ................................................................................................ 3
HMN 220 Western Humanities I ........................................................................................................ 4
PHYSICAL/HEALTH EDUCATION ................................................................................................... 2

Total 15

THIRD SEMESTER: 16 Credit Hours

MATHEMATICS or NATURAL SCIENCE ELECTIVE ....................................................................... 3
ENG 201 Early British Literature OR ENG 202 Modern British Literature ....................................... 3
ANT 102 Cultural Anthropology ........................................................................................................ 3
HMN 221 Western Humanities II ....................................................................................................... 4
PROGRAM ELECTIVE** ...................................................................................................................... 3

Total 16

FOURTH SEMESTER: 15 Credit Hours

ENG 203 American Literature to 1885 OR ENG 204 American Literature since 1885 .......................... 3
ENG 200 level literature course ............................................................................................................ 3
SOCIAL SCIENCE ELECTIVE ............................................................................................................ 3
SOCIAL SCIENCE ELECTIVE* ........................................................................................................... 3
PROGRAM ELECTIVE** ...................................................................................................................... 3

Total 15

PHILOSOPHY OPTION

FIRST SEMESTER: 15 Credit Hours

ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
HMN 101 Humanities: Experiencing Culture - WR ........................................................................... 3
PHL 101 Introduction to Philosophy ................................................................................................... 3
GENERAL ELECTIVE .......................................................................................................................... 3

Total 15

SECOND SEMESTER: 16 Credit Hours

SOCIAL SCIENCE ELECTIVE ............................................................................................................ 3
SUNY GENERAL EDUCATION FOREIGN LANGUAGE* ..................................................................... 3
HMN 220 Western Humanities I ........................................................................................................ 4
PHL 102 Introduction to Logic ........................................................................................................... 3
PHL 250 Professional Ethics ................................................................................................................ 3

Total 16

THIRD SEMESTER: 15 Credit Hours

MATHEMATICS or NATURAL SCIENCES ELECTIVE ........................................................................ 3
PHL 103 Introduction to Ethics OR PHL 105 Technology and Values ................................................. 3
ANT 102 Cultural Anthropology ........................................................................................................ 3
HMN 221 Western Humanities II ....................................................................................................... 4
PHYSICAL/HEALTH EDUCATION ................................................................................................... 2

Total 15

FOURTH SEMESTER: 15 Credit Hours

PHL 102 Introduction to Logic ........................................................................................................... 3
PHL 210 Human Rights & Democracy in Domestic and International Contexts OR appropriate 200 level honors course with permission of Honors Coordinator ............................................ 3
PHL 250 Professional Ethics ................................................................................................................ 3
SUNY GENERAL EDUCATION AMERICAN HISTORY ....................................................................... 3
HIS 153 Traditional East Asian History OR HIS 154 Modern East Asian History OR ART 121 Perspectives of Art History III: Non-Western Art .................................................................................. 3

Total 15

Distribution Requirements

LITERATURE OPTION

* Students should choose one of the following courses, AND one additional social science course:

HIS 153 Traditional East Asian History (SUNY-OWC) 3
HIS 154 Modern East Asian History (SUNY-OWC) 3
ART 121 Perspectives of Art History III: Non-Western Art (SUNY-OWC or SUNY-H) 3
MUS 119 Music in World Cultures (SUNY-A or SUNY-H) 3

** Students should choose two of the following courses to fulfill program electives:

ENG 201 Early British Literature (SUNY-H) 3
ENG 202 Modern British Literature (SUNY-H) 3
ENG 203 American Literature to 1885 (SUNY-H) 3
ENG 204 American Literature since 1885 (SUNY-H) 3
ENG 217 Women in Literature (SUNY-H) 3
ENG 220 Introduction to Dramatic Literature (SUNY-H) 3
ENG 225 Contemporary Poetry (SUNY-H) 3

www.monroec.edu/go/academicprograms
LIBERAL ARTS AND SCIENCES: HUMANITIES AND SOCIAL SCIENCE

A.A. DEGREE

CIP Code: 24.0103
MCC Program Code: LH01
NYSED Code (BRI): 01212

Description
This degree will provide the ten SUNY General Education Knowledge and Skills areas desirable for transferring to a SUNY four-year college or university for a liberal arts major.

This degree should interest students planning to transfer to a four-year college or university offering a Bachelor of Arts or Bachelor of Sciences degree in disciplines that traditionally are part of the Humanities or Social Sciences: English, Philosophy, Anthropology, History, Political Sciences, Sociology, and Psychology.

(Housed in the Liberal Arts Division)

Program Learning Outcomes
1. Discuss the aesthetic attributes of art nature music language culture or literature.
2. Reflect on issues concerning the human condition in local or global contexts.
3. Conduct independent discipline-based research.
4. Analyze information using established or prescribed methods or principles.
5. Synthesize information drawn from a variety of resources or experiences.
6. Work collaboratively to achieve a common goal.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC).

FIRST SEMESTER: 16 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ........................................ 3
HUMANITIES ELECTIVE ........................................................................................................ 3
GENERAL ELECTIVE ............................................................................................................ 3
SUNY GENERAL EDUCATION ART ELECTIVE ................................................................. 3
PHYSICAL/HEALTH EDUCATION ELECTIVE ................................................................. 1
Total 16

SECOND SEMESTER: 15 Credit Hours
FOREIGN LANGUAGE ELECTIVE ....................................................................................... 3
LITERATURE ELECTIVE ........................................................................................................ 3
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE ........................................... 3
SUNY GENERAL EDUCATION MATHEMATICS ELECTIVE: MTH 150 or higher* .......... 3
GENERAL ELECTIVE ............................................................................................................ 3
Total 15

THIRD SEMESTER: 16 Credit Hours
LIBERAL ARTS ELECTIVE .................................................................................................... 3
SUNY GENERAL EDUCATION WESTERN CIVILIZATION ELECTIVE ................................ 3
GENERAL ELECTIVE ............................................................................................................ 3
SUNY GENERAL EDUCATION NATURAL SCIENCES ELECTIVE ....................................... 3
GENERAL ELECTIVE ............................................................................................................ 3
PHYSICAL/HEALTH EDUCATION ELECTIVE ................................................................. 1
Total 16

FOURTH SEMESTER: 15 Credit Hours
MATHEMATICS OR NATURAL SCIENCE ELECTIVE ..................................................... 3
SUNY GENERAL EDUCATION AMERICAN HISTORY ELECTIVE .................................... 3
LIBERAL ARTS ELECTIVE ..................................................................................................... 3
SUNY GENERAL EDUCATION WORLD CIVILIZATIONS ELECTIVE ................................ 3
GENERAL ELECTIVE ............................................................................................................ 3
Total 15

TOTAL CREDITS 62

* Course chosen to meet Mathematics requirement should be with guidance from a faculty advisor. MTH 150 might not fulfill the mathematics requirements of your transfer institution for students pursuing a major in a Social Science discipline such as Psychology, Sociology, Anthropology or Political Science. These students are strongly recommended to take MTH 160 or higher depending on the requirement of the academic program at the transfer institution.

LIBERAL ARTS AND SCIENCES: SCIENCE

A.S. DEGREE

CIP Code: 24.0101
MCC Program Code: LS01
NYSED Code (BRI): 01213

Description
The courses in Natural Science provide the first two years of preparation for students who plan to transfer and earn the baccalaureate degree in biology, chemistry, environmental science, geosciences, physics or other career areas such as medicine or pharmacy, for which a good science preparation is needed. This degree requires a minimum of 32 credit hours in Natural Science and Mathematics with a reasonable distribution of courses in Humanities and Social Science. The various advisement sequences within this program identify courses of study that facilitate transfer to upper division colleges and universities. Students are expected to consult regularly with faculty advisors in their area of study and also be aware of the course requirements of the college to which they plan to transfer.

Recommended Preparation: At least three years each of high school science and mathematics; specifically, algebra, geometry, intermediate algebra, trigonometry and chemistry. Students not meeting these requirements may need more than two years to complete this degree.

Program Learning Outcomes
1. Prepare students for successful transfer to four-year programs in a science discipline.
2. Develop discipline-relevant research skills.
3. Analyze information using established or prescribed methods or principles.
4. Synthesize information drawn from a variety of resources or experiences.
5. Collaborate to address discipline-related problems.

Requirements for Program Entrance
At least three years each of high school science and mathematics; specifically, algebra, geometry, intermediate algebra, trigonometry and chemistry. Students not meeting these requirements may need more than two years to complete this degree.

Distribution Requirements

HUMANITIES: 9 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ................................. 3
LITERATURE ELECTIVE ........................................................................................................ 3
HUMANITIES ELECTIVE ...................................................................................................... 3
Total 9

www.monroecc.edu/go/academicprograms
NATURAL SCIENCE AND MATHEMATICS: 32 Credit Hours
TWO MATHEMATICS COURSES (MTH 210 OR HIGHER) ......................... 8
NATURAL SCIENCES ............................................................................. 24
Students must complete course sequences in at least two different science departments including a four-semester sequence through the 200-level in one department and at least a two-semester sequence in a second department. The following sequences are acceptable:
- BIO 155, 156, AND two from the following: BIO 209, 260, 265, 266
- CHE 151, 152, 251, 252
- GEO 101, 102, 201, AND 203 OR 204
- PHY 161, 261, AND 262, and one of the following: ENR 251 or ENR 253 or ENR 258 or ENR 261
- PHY 145 and 146 may also be used to satisfy the requirement of a two-semester sequence in a second department but not as part of a four-semester sequence in physics.

Total 32

SOCIAL SCIENCE: 12 Credit Hours
ANY FOUR SOCIAL SCIENCE COURSES .................................................. 12

Total 12

ELECTIVES: 9 Credit Hours
ELECTIVES .............................................................................................. 9

Total 9

PHYSICAL/HEALTH EDUCATION: 2 Credit Hours
PHYSICAL/HEALTH EDUCATION ............................................................ 2

Total 2

TOTAL CREDITS 64

LIBERAL ARTS AND SCIENCES: TRANSFER PROGRAMS-
GENERAL STUDIES

Description
The Liberal Arts and Sciences A.S. degree requirements for General Studies provide opportunities for students to explore career options and to select courses to facilitate their transfer to four-year colleges. Students should discuss their plans with faculty advisors. Faculty members can assist students in selecting courses that meet the requirements of the college to which the student intends to transfer. Although students may select courses in different subject areas, they will receive the Liberal Arts and Sciences A.S. degree in General Studies diploma. By appropriate course selection in consultation with a faculty advisor, students pursuing the Liberal Arts and Sciences degree program may prepare for transfer to upper division study in the subject areas listed below.

CHILD CARE PRACTITIONER: Students who plan to transfer and earn a Bachelor Degree in center or home-based child care should consult with the faculty in the Education Department (262-1460). Students intending to use this program for transfer should make certain that their course selections meet the requirements of the colleges to which they plan to transfer. Students planning to transfer to a SUNY college or university must also fulfill the SUNY General Education requirements.

HISTORY: Students who plan to transfer and earn a Bachelor Degree with a major in history should consult with faculty in the Anthropology/History/Political Science/Sociology Department (292-3260, Rm. 5-322).

NUTRITION: Students who plan to transfer and earn the baccalaureate degree in Nutrition/Dietetics should consult with faculty in the Hospitality Management office (292-2579). The advisement sequence in this program identifies a course of study that will facilitate transfer to upper division colleges and universities. Students are expected to consult regularly with faculty advisors and also be aware of the course requirements of the college to which they plan to transfer.

POLITICAL SCIENCE: Students who plan to transfer and earn a Bachelor Degree in the field of political science or related major such as international relations, or foreign service, should consult with faculty in the Anthropology/History/Political Science/Sociology Department (292-3260, Rm. 5-322).

PRE-CHIROPRACTIC: This program was designed in conjunction with the New York Chiropractic College in Seneca Falls and meets all eligibility requirements for future admission to NYCC. To be considered for admission to NYCC, a student must first complete 90 hours at MCC while maintaining a GPA of 3.25 in all science courses. During a student’s first year at MCC, they must submit a letter of intent to NYCC identifying their desired date of entrance. The Pre-Chiropractic Advisement sequence is an articulation agreement between MCC and NYCC. This agreement was set up and is housed in the Career and Transfer Center. They should also consult with the MCC Career and Transfer Center (292-2248, Rm. 3-108). Students who successfully complete all program requirements are guaranteed admission to NYCC for the entrance date of their choice.

PSYCHOLOGY: The advisement sequence in this program identifies a course of study that will facilitate transfer to four-year colleges and universities for students planning to pursue a Bachelor’s Degree in Psychology. Students should be aware that the course requirements of specific four-year colleges may vary widely; therefore, it is strongly recommended that students consult with faculty in the Psychology Department, (292-3334, Rm. 5-414) or staff in the Career and Transfer Center (292-2248, Rm. 3-108) before selecting specific courses.

Program Learning Outcomes

Requirements for Program Entrance

CHILD CARE PRACTITIONER (Sequence): Algebra (1 year high school math or placement in Level 4 math at MCC).

HISTORY (SEQUENCE): Intermediate Algebra with Trigonometry or MTH 104 at MCC.

NUTRITION (Sequence): Intermediate Algebra with Trigonometry or MTH 104 at MCC.

POLITICAL SCIENCE (Sequence): Intermediate Algebra with Trigonometry or MTH 104 at MCC.

PRE-CHIROPRACTIC (Sequence): Pre-Calculus in high school with an 83 or MTH 175 at MCC.
**LIBERAL ARTS AND SCIENCES: TRANSFER PROGRAMS - SCIENCE**

**Description**

The Liberal Arts and Sciences A.S. degree requirements for Science provide opportunities for students to explore career options and to select courses to facilitate their transfer to a four-year college. Students should discuss their plans with faculty advisors. Faculty members can assist students in selecting courses that meet the requirements of the college to which the student intends to transfer. Although students may select courses in different subject areas, they will receive the Liberal Arts and Sciences A.S. degree in Science diploma. By appropriate course selection in consultation with a faculty advisor, students pursuing the Liberal Arts and Sciences degree may prepare for transfer to upper division study in the subject areas listed below.

**BIOLGY:** Students who plan to transfer and earn the baccalaureate degree with a major in biology in preparation for careers in medicine, dentistry, veterinary medicine or education should consult with faculty in the Biology Department (292-2029, Rm. 8-228). Students interested in these opportunities and who also plan to complete the associate degree in two years should successfully complete three years of high school mathematics through trigonometry and one year of chemistry. A fourth year of mathematics is strongly recommended.

**CHEMISTRY:** Students who plan to transfer and earn a baccalaureate degree with a major in chemistry in preparation for a career in pharmacy, education, or chemical research should consult with faculty the Chemistry/Geosciences Department (292-2425, Rm. 8-212). Students interested in these opportunities and who plan to complete the associate degree in two years should successfully complete three years of high school mathematics through trigonometry and have above average performance in high school chemistry. A fourth year of mathematics is strongly recommended.

**ENVIRONMENTAL SCIENCE:** Students who plan to transfer and earn a baccalaureate degree in either environmental science or in a traditional science with an environmental science emphasis should consult with faculty in the Biology Department (292-2029, Rm. 8-228). Students interested in these opportunities and who plan to complete the associate degree in two years should successfully complete three years of high school mathematics and two years of science. Three years of science including chemistry are strongly recommended.

**GEOSCIENCES:** Students who plan to transfer and earn a baccalaureate degree with a major in geology in preparation for careers in the petroleum and mining industries, conservation or science education should consult with faculty in the Chemistry/Geosciences Department (292-2425, Rm. 8-212). Students interested in these opportunities and who plan to complete the associate degree in two years should successfully complete three years of high school mathematics and two years of science. Four years of mathematics, one year of high school chemistry, and one year of high school physics are recommended. Students interested in the Water Resources major at SUNY Brockport should also consult with Geosciences faculty.

**PHYSICS:** Students who plan to transfer and earn a baccalaureate degree with a major in physics in preparation for a career in education, research, or industry should consult with faculty in the Engineering Science and Physics Department (292-2480, Rm. 8-630). Students interested in these opportunities and who plan to complete the associate degree in four semesters should have successfully completed high school Pre-Calculus with a grade of 83 or higher or a C or higher in precalculus at MCC or another college, and successful completion of regents Physics and regents Chemistry.

**PRE-FORESTRY:** Students who plan to transfer and earn a baccalaureate degree at SUNY College of Environmental Science and Forestry, Syracuse, New York, in Environmental and Forest Biology, Chemistry, Wood Products Engineering, Forestry, Paper Science and Engineering, or Forest Engineering should consult with faculty in the Biology Department (292-2029, Rm. 8-228). Students interested in these opportunities and who plan to complete the associate degree in two years should successfully complete three years of high school mathematics through trigonometry, and high school biology and chemistry with a grade of C or higher. Physics and Mathematics 12 are recommended.

**PRE-PHARMACY:** Students who plan to transfer and earn a baccalaureate degree in the field of pharmacy should consult with faculty in the Chemistry/Geosciences Department (292-2425, Rm. 8-212). Students interested in this opportunity should select courses to make them eligible for consideration for admission into the three-year pharmacy program being offered at a pharmacy college in New York. Students should successfully complete three years of high school mathematics through trigonometry and have above average performance in Regents chemistry. Mathematics 12 is strongly recommended.

**Program Learning Outcomes**

**Requirements for Program Entrance**

**ENVIRONMENTAL SCIENCE** (Sequence): Intermediate Algebra with Trigonometry or MTH 104 at MCC. Biology. Chemistry.

**GEOSCIENCES** (Sequence): Pre-Calculus. Pre-Calculus in high school with an 83 or MTH 175 at MCC. Chemistry.

**PHYSICS** (Sequence): Pre-Calculus. Pre-Calculus in high school with an 83 or MTH 175 at MCC. Physics.

**PRE-FORESTRY** (Sequence): Pre-Calculus. Pre-Calculus in high school with an 83 or MTH 175 at MCC. Biology. Chemistry.

**PRE-PHARMACY** (Sequence): Intermediate Algebra with Trigonometry or MTH 104 at MCC. Biology. Chemistry.

**LIBERAL ARTS GENERAL STUDIES NUTRITION ADVISEMENT SEQUENCE A.S. DEGREE**

**Description**

See Liberal Arts and Sciences Program - General Studies Transfer Opportunities
MATHMATICS

CERTIFICATE PROGRAM

CIP Code: MCC Program Code:
27.0101  MCD1
NYSED Code (BRI):  NYSED Code (DCC):
32456  32456

Description
The Mathematics Certificate is for students who wish to demonstrate a high level of preparation in Mathematics to 4-year schools. A student who obtains this certificate will have completed courses forming a foundation towards a 4-year degree in Mathematics or a related field. A student who has AP or Transfer Credit for Calculus I (MTH 210) and Calculus II (MTH 211) can complete this certificate in 2 semesters. Otherwise, it will take up to 2 years to complete the certificate.

(Housed in the Mathematics Department)

Program Learning Outcomes
1) Formulate mathematical arguments.
2) Express mathematical ideas in various ways such as symbolically graphically numerically or verbally.
3) Analyze quantitative information in various problem solving situations.
4) Develop mathematical models of applications in various disciplines.
5) Use mathematical models to solve problems in various disciplines.
6) Use appropriate technologies to explore mathematical concepts.

Requirements for Program Entrance
Four years of High school Mathematics (83 or higher each required); including Algebra, Geometry, Trigonometry, and one year of Precalculus, or MTH 175 with a grade of C or higher.

Distribution Requirements  Credit Hours

FIRST SEMESTER: 7-8 Credit hours
MTH 210 Calculus I ................................................................. 4
ELECTIVE* ............................................................................. 3-4
Total 7-8

SECOND SEMESTER: 4 Credit hours
MTH 211 Calculus II ................................................................ 4
Total 4

THIRD SEMESTER: 7 Credit hours
MTH 212 Calculus III .............................................................. 4
ENG 101 College Composition OR ENG 200 Advanced Composition ..... 3
Total 7

FOURTH SEMESTER: 6-8 Credit Hours
MTH 161 Statistics II* OR MTH 220 Discrete Mathematics OR MTH 225 Differential Equations OR MTH 230 Linear Algebra ........................................................................ 3-4
MTH 220 Discrete Mathematics OR MTH 230 Linear Algebra ........................................................................ 3-4
Total 6-8

TOTAL CREDITS 24-27

* MTH 160 (Statistics I) is the prerequisite for MTH 161 (Statistics II). Students choosing MTH 161 as part of this certificate must first take the MTH 180 as an elective, unless MTH 180 has previously been completed.

Academic Programs 105

www.monroecc.edu/go/academicprograms
Mechanical Tech

etc.) for design, analysis or technical decision making appropriate decision-making stresses within mechanical systems analysis

proper standards (i.e. ASME Y14.5, ISO)

materials, and equipment of mechanical technology. Emphasis is placed on drafting,

NOTE:

Students planning to transfer to a SUNY college or university must also fulfill the SUNY General Education requirements.

All Mathematics courses and many courses in other disciplines have prerequisites that must be satisfied. When planning their schedules, students should refer to the Course Descriptions section of the Catalog and Student Handbook to view course prerequisites.

* MTH 160 (Statistics I) is the prerequisite for MTH 161 (Statistics II.) Students choosing MTH 161 as their Mathematics elective must first take MTH 160 as an elective, unless MTH 160 has previously been completed.

** Choose one: BIO 155 and BIO 156, or CHE 151 and CHE 152, or GEO 101 and GEO 102, or PHY 154 and PHY 155, or PHY 161 and PHY 261.

*** MTH 220 (Discrete Mathematics) is strongly recommended for students majoring in Mathematics. Students planning to transfer to a SUNY school should take MTH 220 as their program elective.

MECHANICAL TECHNOLOGY

A.A.S. DEGREE

CIP Code:

MCC Program Code:

15.0905

NYSED Code (BRI):

MT01

Description

The Mechanical Technology Program introduces the student to the principles, materials, and equipment of mechanical technology. Emphasis is placed on drafting, design, and an understanding of basic machine components.

Graduates of the program find employment as drafter, engineering assistants, technicians, and technical salespersons.

(Housed in the Engineering Technologies Department)

Program Learning Outcomes

1) Sketch design ideas and concepts by hand using proper scaling and perspective
2) Generate complete and fully dimensioned orthographic projection drawings to proper standards (i.e. ASME Y14.5, ISO)
3) Create solid model CAD files with the requisite design intent built-in
4) Use measurement tools to inspect and record dimensions of parts
5) Analyze data to objectively make technical decisions using basic statistical analysis
6) Apply fundamental technical calculations required to determine forces and stresses within mechanical systems
7) Apply knowledge of material properties and manufacturing processes to appropriate decision-making
8) Use industry standard computer applications (MS Excel, MathCAD, SolidWorks, etc.) for design, analysis or technical decision making
9) Discuss knowledgeably subject matter related to technical fields other than Mechanical Tech
10) Communicate effectively in various modes

Requirements for Program Entrance

Intermediate Algebra with Trigonometry (or Math 104 at MCC).

Distribution Requirements

FIRST SEMESTER: 17 Credit Hours

ENG 101 Technical Writing OR
ENG 290 Advanced Composition ..................................................................................3
MTH 140 Technical Mathematics I* OR MTH 155 College Algebra or higher ..................3
MET 101 Technical Graphics ..........................................................................................3
MET 103 Manufacturing Processes I ..............................................................................2
OPT 135 Measurement and Analysis ...........................................................................4
TEK 101 Computer Applications for Technicians ..........................................................2

Total 17

SECOND SEMESTER: 14 Credit Hours

MTH 141 Technical Mathematics II* OR MTH 175 Precalculus Mathematics with Analytical Geometry or higher ..................................................................................3
PHY 131 Applied Physics I OR PHY 145 College Physics I OR PHY 154 General Physics I
OR PHY 161 University Physics I ..................................................................................4
MET 121 Computer Aided Drafting/Design I ..................................................................3
MET 203 Technical Mechanics, Statics .........................................................................3

Total 14

THIRD SEMESTER: 17 Credit Hours

ENG 251 Technical Writing ..........................................................................................3
ELT 130 Basic Electricity and Electronics OR ELT 121 AC/DC Circuit Analysis ..............3
MET 206 Engineering Materials ....................................................................................3
MET 225 Machine Design Theory I .............................................................................3
PHY 132 Applied Physics II OR PHY 146 College Physics II OR PHY 155 General Physics II
OR PHY 261 University Physics II .............................................................................4

Total 17

FOURTH SEMESTER: 15 Credit Hours

CIT 204 Strength of Materials .....................................................................................3
SOCIAL SCIENCE ELECTIVE ......................................................................................3
MET 208 Technical Mechanics, Dynamics .....................................................................3
MET 226 Machine Design Theory II ............................................................................3
TECHNICAL ELECTIVE** ............................................................................................3

Total 15

NOTE:

* Students not proficient in algebra or trigonometry should take MTH 135 preferably in Summer Session prior to starting Mechanical Technology. Students with excellent high school math records may wish to select a more advanced math program following consultation with the Mathematics Department.

** Technical Elective: Any course in CIT, ELT, MET, OPT or ENR 153, ENR 157, ENR 161, ENR 259 or see department chairperson for a substitution waiver.
MUSIC PERFORMANCE

A.S. DEGREE

CIP Code: 50.0903
NYSED Code (BRI): 139994

Description
This course of study is recommended for students who plan to transfer and earn a baccalaureate degree with a major in music. It provides basic preparation for a career in music. In the program, a balance is maintained between courses dealing with general musical knowledge and those courses designed to develop a particular music skill. A variety of performing organizations provide students with ensemble experience and with opportunities for public performances. Students will also be required to take a minimum of 15 one-hour lessons each semester. The cost of lessons is not included in MCC tuition. Recommended Preparation: Students who plan to complete this course of study in two years should have experience in vocal or instrumental performance and reading music. Entering students must prepare two contrasting pieces for a music area audition. To find out about audition dates, please contact the department secretary at 282-2047.

Program Learning Outcomes
1) Analyze theoretical structures of written music
2) Explain theoretical structures of aural music
3) Perform with proficiency on their primary instrument (which may include voice)
4) Perform with functional proficiency selected musical techniques and compositions on piano
5) Sight sing or sight read on an instrument accurately from printed music with respect to pitch and rhythm
6) Transcribe music accurately with respect to pitch and rhythm through repeated hearings
7) Perform collaboratively in an ensemble
8) Describe selected styles of music for form and/or content and/or instrumentation as it developed throughout the history of written music

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 4 Math at MCC), experience in vocal or instrumental performance and reading music recommended. Audition required.

Distribution Requirements

FIRST SEMESTER: 17 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition ................................................. 3
MUS 109 Music Theory I .................................................................................................................. 4
MUS 126 Applied Piano Minor I ..................................................................................................... 1
MUS 151 Private Lessons/Perform Class ...................................................................................... 2
MAJOR PERFORMING ORGANIZATION** ................................................................................... 1
MUS 159 Aural Skills I .................................................................................................................... 1
PHYSICAL/HEALTH EDUCATION ................................................................................................. 2
SUNY GENERAL EDUCATION SOCIAL SCIENCE ELECTIVE (AMERICAN HISTORY, OTHER WORLD CIVILIZATIONS OR SOCIAL SCIENCE ELECTIVE) .......................................................... 3

Total 17

SECOND SEMESTER: 15 Credit Hours
MUS 110 Music Theory II ............................................................................................................... 4
MUS 127 Applied Piano Minor II .................................................................................................. 1
MUS 151 Private Lessons/Perform Class ...................................................................................... 2
MAJOR PERFORMING ORGANIZATION** ................................................................................... 1
MUS 160 Aural Skills II .................................................................................................................. 1
MATHEMATICS ELECTIVE (MTH 150 or higher) ..................................................................... 3
SUNY GENERAL EDUCATION ELECTIVE+ .................................................................................. 3

Total 15

THIRD SEMESTER: 15 Credit Hours
LITERATURE ELECTIVE .............................................................................................................. 3
MUS 201 History of Music I ............................................................................................................ 3
MUS 151 Private Lessons/Perform Class ...................................................................................... 2
MAJOR PERFORMING ORGANIZATION** ................................................................................... 1
MUS 209 Music Theory III ............................................................................................................ 4
MUS 259 Aural Skills IV ................................................................................................................. 1
MAJOR PERFORMING ORGANIZATION** ................................................................................... 1

Total 15

FOURTH SEMESTER: 15 Credit Hours
SUNY GENERAL EDUCATION NATURAL SCIENCE ELECTIVE .................................................. 3
MUS 151 Private Lessons/Perform Class ...................................................................................... 2
MAJOR PERFORMING ORGANIZATION** ................................................................................... 1
MUS 210 Music Theory IV ............................................................................................................ 4
MUS 202 History of Music II ......................................................................................................... 3
MUS 227 Applied Piano Minor IV ................................................................................................ 1
MUS 260 Aural Skills IV ................................................................................................................. 1

Total 15

TOTAL CREDITS 62

** Major Performing Organization include: MUS 104, MUS 105, MUS 108, MUS 114, MUS 115, MUS 140, MUS 141, MUS 142, MUS 145, MUS 146, MUS 161.
+ Select any course from any area in the SUNY General Education Course Plan.

NURSING

A.S. DEGREE

CIP Code: 51.1601
NYSED Code (BRI): 01233

Description
The Department of Nursing strives to provide high quality education to a diverse population of students and assists them in achieving success in preparing for New York State licensure and employment as a Registered Professional Nurse. The Nursing Program is accredited by the New York State Department of Education, the New York State Board of Regents, and the Accreditation Commission for Education in Nursing, 3343 Peachtree Road, NE, Suite 850, Atlanta GA 30326, phone: 404-375-5000. acnursing.org. The professional nursing program, including clinical practice, can be completed in two academic years of full-time study. A graduate of the program who is at least 18 years of age and who meets licensing criteria is eligible for admission to the National Council Licensing Exam established by New York State Education Department, Office of the Professions (online) retrieved from www.op.nysed.gov/prof/nurse/nursing.htm. To be licensed as a registered professional nurse in New York State a candidate must:
- be of good moral character;
- be at least eighteen years of age;
- meet education requirements;
- complete coursework or training in Infection Control and in the identification and reporting of child abuse offered by a New York State approved provider; and
- meet examination requirements.

The clinical experience required in the curriculum is provided through cooperation of Rochester area hospitals, long term care facilities and other health care agencies. All health care providers must abide by Occupational Safety and Health Administration (OSHA) Blood Borne Pathogen and NYS Department of Health regulations.
Please contact the Admissions Office regarding current admission criteria and/or geographic limitation. Admission and continuation in the nursing program is conditional upon completion of the following requirements:

1. A grade of C or better in High School Algebra or Sequential Math I or Math A Regents, Biology, and Chemistry.
2. Current CPR certification for two person professional rescuers which includes infant, child, adult and resuscitation mask and Automated External Defibrillator (AED). Only American Heart Association BLS for Healthcare Providers (CPR and AED) (2 year), or American Red Cross Professional Rescuer (CPR and AED) (1 year) certification is acceptable. Proof of certification must be submitted to the department at least one month prior to starting the program. Current certification must be maintained throughout duration of program in order for the student to attend clinical.
3. Completion of medical requirements, clearance of existing health problem(s), and ability to meet essential functions (physical and mental demands) of the program. Medical requirements, including PPD (negative X-ray), varicella titer, and immunizations, must be met throughout the duration of the program in order for the student to attend clinical.
4. Vaccination against seasonal flu. Vaccination against hepatitis B and meningitis or required signed declaration waivers.
5. Successful completion of ESOL or Transitional Studies courses if enrolled.

Students must have current health insurance to participate in the nursing program. The fee for health insurance will be added to tuition if students do not provide proof of insurance prior to the start of the program.

A minimum grade of C is necessary in all required nursing and biology courses for continued matriculation in the program. A student who fails to achieve a grade of C in the fourth semester nursing course will be ineligible for graduation. Nursing is a high demand, competitive program. Readmission to the nursing program is not automatic and is dependent on several factors. Students seeking readmission to the program (or seeking admission after unsuccessful attempts in a nursing program at another college) should contact the Department of Nursing for information or refer to the "MCC Department of Nursing Student Related Policies" located on the Department of Nursing website. Readmission, if approved, is always on a space available basis.

The program of study must be completed within five years of matriculation. NUR 150 is required for students who are transferring into the program, admitted with advanced standing, or returning to the program after an absence of one year. Completion of NUR 150 is valid for one year. Students reentering NUR 111 do not need to take NUR 150. NUR 150 cannot be used as an elective in the Nursing program.

Any deviation from the basic program of study requires written approval from the department.

(Housed in the Nursing Department)

### Program Learning Outcomes

1. Advocate for patients and families, within healthcare settings, to support Basic Needs and Human Flourishing:
   a. Collaborate with other members of the inter-professional team to achieve positive patient outcomes.
   b. Apply critical thinking skills to support the achievement of basic needs for patients and families.
   c. Use therapeutic communication across health care settings.
2. Demonstrate Nursing Judgment by applying the Nursing Process, substantiated with evidence, to provide safe, quality patient centered care in diverse settings. Activities include assessment, nursing diagnosis, care planning, implementation and evaluation:
   a. Establish an individualized plan of care, using the Nursing Process.
   b. Set priorities within the frameworks of safe, efficient and effective nursing care.
   c. Develop an evolving Professional Identity at entry level by implementing the nursing role to reflect the core values of the MCC Department of Nursing:
      i. Demonstrate accountable behaviors within ethical, legal and regulatory frameworks of the profession.
      ii. Complete the NCLEX-RN licensure exam successfully.
      iii. Establish a Spirit of Inquiry for professional nursing practice:
         a. Incorporate knowledge of Evidence Based Practice guidelines into professional nursing practice.
         b. Develop the skills necessary to use Evidence Based Practice guidelines and other professional standards of care.
   d. Display attitudes consistent with the values of lifelong learning.

### Requirements for Program Entrance

#### Competitive Admission

— Please contact the Admissions Office regarding current admission criteria and/or geographic limitations.

**Elementary Algebra with Geometry (or Math 098 at MCC), Biology and Chemistry.**

### Distribution Requirements

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Distribution Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total 18</strong></td>
<td><strong>FIRST SEMESTER: 18 Credit Hours</strong></td>
</tr>
<tr>
<td><strong>Total 18</strong></td>
<td><strong>SECOND SEMESTER: 18 Credit Hours</strong></td>
</tr>
<tr>
<td><strong>Total 16</strong></td>
<td><strong>THIRD SEMESTER: 16 Credit Hours</strong></td>
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<tr>
<td><strong>Total 12</strong></td>
<td><strong>FOURTH SEMESTER: 12 Credit Hours</strong></td>
</tr>
<tr>
<td><strong>TOTAL CREDITS 64</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Program Options

**Advanced Standing 3-Semester Option of LPN’s (NU02)**

To exempt Fundamentals of Nursing (NUR 111), a score of B on the Excelsior College Examination for Fundamentals of Nursing must be attained. The Excelsior College **Academic Programs**

www.monroec.edu/go/academicprograms
Office Technology - Office Administrative Assistant

A.A.S. DEGREE

CIP Code: 52.0401
NYSED Code (BRI): 01222
MCC Program Code: OF02

Description
This degree program is designed to provide students with a broad background in business terminology and high levels of proficiency in computer skills that will enable them to perform successfully in diverse office support positions. This degree is designed to provide a core background in developing skills for technology, decision making, human relations, communications, and office management.

If an Intent to Graduate form is submitted five years after a student’s completion of OFT 201, OFT 170, OFT 171, or OFT 173, the department reserves the right to withhold credit until the student has demonstrated competency in these courses.
(Housed in the Information and Computer Technologies Department)

Program Learning Outcomes
1) Demonstrate the soft skills needed to be successful as an administrative assistant (office support) which may include: punctuality acceptance of personal responsibility teamwork skills expressing a positive attitude under stress effective customer service skills or other related skills.
2) Demonstrate effective oral communication skills both in person and on the telephone.
3) Write effectively in an office environment in a variety of modes.
4) Exhibit proficiency in using a variety of current office-based software which may include: desktop publishing applications spreadsheets databases word processing or computer-based technologies.
5) Express themselves professionally in a business environment using well-established rules of proper grammar and sentence construction.
6) Transcribe messages as required on the job.
7) Apply fundamentals of basic business mathematics to workplace needs.
8) Apply fundamentals of basic accounting to workplace needs.
9) Describe the role of an office support staff professional and the contribution of that professional to the success of the whole office environment.

Requirements for Program Entrance
Algebra (1 year high school math or placement into Level 3 Math at MCC).

Distribution Requirements

FIRST SEMESTER: 16 Credit Hours

LITERATURE ELECTIVE .................................................................................................. 3
ENG 101 College Composition OR ENG 200 Advanced Composition ............................................ 3
ENG 250 Professional Communication OR SPC 141 Interpersonal Speech Communication OR SPC 142 Public Speaking OR SPC 143 Small Group Communication .................................................. 3
MTH 130 Modern Business Mathematics OR higher ........................................................................ 3
OFT 110 Keyboarding ........................................................................................................... 3
OFT 141 Grammar for Professionals ...................................................................................... 4

Total 16

SECOND SEMESTER: 16 Credit Hours

LITERATURE ELECTIVE .................................................................................................. 3
ACC 101 Accounting Principles I OR ACC 110 Fundamentals of Accounting AND ACC 111 Fundamentals of Accounting II* ................................................................. 4
BUS 135 Supervising for Quality .......................................................................................... 3
OFT 111 Intermediate Word I .............................................................................................. 3
OFT 170 Spreadsheet Applications-Excel ................................................................................ 3

Total 16

THIRD SEMESTER: 16 Credit Hours

SOCIAL SCIENCE ELECTIVE .......................................................................................... 3
OFT 112 Advanced Word II .............................................................................................. 3
OFT 171 Microsoft Access .................................................................................................. 3
HEALTH/PHYSICAL EDUCATION .................................................................................... 1
NATURAL SCIENCE ELECTIVE ...................................................................................... 3
OFT 173 Microsoft Multimedia Communications .................................................................... 3

Total 16

FOURTH SEMESTER: 16 Credit Hours

SOCIAL SCIENCE ELECTIVE .......................................................................................... 3
OFT 201 Advanced Word II .............................................................................................. 2
OFT 202 Office Simulations ............................................................................................... 4
OFT 214 Administrative Office Procedures .......................................................................... 4
OFT 240 Office Transcription ............................................................................................ 3
OFT 270 Office Seminar ..................................................................................................... 2

Total 16

TOTAL CREDITS 64

* Grade of C or C- required as indicated for progress to next course.
OFFICE TECHNOLOGY: MEDICAL OFFICE ASSISTANT

CERTIFICATE PROGRAM

<table>
<thead>
<tr>
<th>CIP Code:</th>
<th>MCC Program Code:</th>
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<tbody>
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<tr>
<td>NYSED Code (BRI):</td>
<td>NYSED Code (DCC):</td>
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<tr>
<td>22421</td>
<td>22423</td>
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</table>

Description

This one-year certificate program is designed to provide students with a firm foundation for the medical office environment. With the development of strong word processing and communication skills, transcription skills, and medical office protocol, the student is well on the path to a fulfilling career in the medical office support area.

(Housed in the Information and Computer Technologies Department)

Program Learning Outcomes

1) Demonstrate the soft skills needed to be successful as an administrative assistant (office support) which may include: punctuality acceptance of personal responsibility teamwork skills expressing a positive attitude under stress effective customer service skills or other related skills.

2) Demonstrate effective oral communication skills both in person and on the telephone.

3) Write effectively in an office environment in a variety of modes.

4) Exhibit proficiency in using a variety of current healthcare-based office software which may include: desktop publishing applications medical databases or other medical-based computer applications.

5) Demonstrate competence in the use of medical office computer-based functions (coding scheduling billing financial reporting etc.).

6) Apply fundamentals of basic business mathematics to workplace needs.

7) Describe the role of a medical office support staff professional and the contribution of that professional to the success of the whole medical office environment.

Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 3 Math at MCC). Demonstrated keyboard proficiency or completion of OFT 110. Keyboarding I.

Distribution Requirements

FIRST SEMESTER: 17 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFT 111 Intermediate Word</td>
<td>3</td>
</tr>
<tr>
<td>OFT 141 Professional Grammar and Communications</td>
<td>4</td>
</tr>
<tr>
<td>HIM 104 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MTH 130 Modern Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>HED 101 Cardiopulmonary Resuscitation and Care</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</table>

SECOND SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFT 112 Advanced Word I</td>
<td>3</td>
</tr>
<tr>
<td>HED 115 Death and Dying OR</td>
<td>3</td>
</tr>
<tr>
<td>HED 209 Drugs and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>OFT 267 Medical Office Documentation</td>
<td>3</td>
</tr>
<tr>
<td>OFT 268 Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OFT 173 Microsoft Multimedia Communications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**TOTAL CREDITS 32**

+ If background allows (25 wpm for 5 minutes). Otherwise must take OFT 110 before OFT 111.

OPTICAL SYSTEMS TECHNOLOGY

A.A.S. DEGREE

<table>
<thead>
<tr>
<th>CIP Code:</th>
<th>MCC Program Code:</th>
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<td>15.0304</td>
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<tr>
<td>NYSED Code (BRI):</td>
<td>NYSED Code (DCC):</td>
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<tr>
<td>03901</td>
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</tr>
</tbody>
</table>

Description

The Optical Systems Technology degree offers a unique, comprehensive program which prepares graduates for work in high technology fields which apply light and optical principles in their operations. The curriculum combines the study of optics with electronics for careers in electro-optics or allows a traditional optics option.

The optical systems technician works with scientists and engineers in research, development, design, production, quality control, test, and evaluation of optical components and systems, as well as sales and service. The course of study gives the student opportunity to work with and operate much of the precision equipment and technology used in today's field of electro-optical systems. This program is not designed as a transfer program. Students who plan to transfer to a four-year college to earn their Bachelor's degree should discuss their plans with an advisor as early as possible to identify the appropriate program.

Students should meet regularly with their program advisor to make certain that their course selections meet the requirements of the program and their career choices.

Recommended preparation. Three years of high school mathematics are required through Sequential Math III (Regents level strongly recommended), and one-half year of physics or physical science is recommended.

(Housed in the Engineering Technologies Department)

Program Learning Outcomes

1. Evaluate an optical system using a number of geometrical optics test procedures.


3. Understand and perform the basic and advanced optical manufacturing techniques for today's precision optical components.

4. Understand perform the basic and advanced metrology techniques for testing optical systems and individual optical components.

Requirements for Program Entrance

Intermediate Algebra with Trigonometry (or Math 104 at MCC).

Distribution Requirements

TRADITIONAL OPTICS OPTION

FIRST SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MTH 140 Technical Mathematics I*</td>
<td>3</td>
</tr>
<tr>
<td>TEK 101 Computer Applications for Technicians</td>
<td>2</td>
</tr>
<tr>
<td>OPT 131 Optical Elements and Ray Optics</td>
<td>4</td>
</tr>
<tr>
<td>OPT 135 Measurement and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ENGLISH ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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SECOND SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 College Composition</td>
<td>3</td>
</tr>
<tr>
<td>MTH 141 Technical Mathematics II*</td>
<td>3</td>
</tr>
<tr>
<td>PHY 131 Applied Physics I*</td>
<td>4</td>
</tr>
<tr>
<td>OPT 151 Optical Instruments and Testing</td>
<td>4</td>
</tr>
<tr>
<td>OPT 153 Fiber Optics</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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<tr>
<td>Semester</td>
<td>Course Description</td>
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<tr>
<td>THIRD SEMESTER</td>
<td>MTH 175 Precalculus Mathematics with Analytic Geometry</td>
</tr>
<tr>
<td></td>
<td>OPT 211 Wave Optics and Applications</td>
</tr>
<tr>
<td></td>
<td>OPT 213 Optical Processes</td>
</tr>
<tr>
<td></td>
<td>ELT 121 AC/DC Circuit Analysis</td>
</tr>
<tr>
<td></td>
<td>SOCIAL SCIENCE ELECTIVE</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
</tbody>
</table>

| FOURTH SEMESTER | OPT 201 Photo Science | 4 |
| | OPT 215 Electro-Optical Devices and Systems | 5 |
| | OPT 231 Lasers: Technology and Applications | 4 |
| | SOCIAL SCIENCE ELECTIVE | 3 |
| | PHYSICAL/HEALTH EDUCATION | 1 |
| Total | 17 |

| TOTAL CREDITS 70 |

| OPTICAL SYSTEMS TECHNOLOGY CERTIFICATE PROGRAM |

<table>
<thead>
<tr>
<th>CIP Code:</th>
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<td>15.0004</td>
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</table>

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>The Optical Technology Certificate Program prepares students to work in optical activities, such as testing, quality control, and production. It provides a background in optics using the eye as a detector, but not incorporating the peripheral disciplines, such as electronics and photography, as offered in the A.A.S. curriculum in Optics. This certificate program is designed for people working in the field, or in an allied field, who wish to add optics to their sphere of competence. All courses shall be applicable to the A.A.S. degree should the student wish to continue his/her education in Optical Engineering Technology. (Housed in the Engineering Technologies Department)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understand and perform the basic and advanced optical manufacturing techniques for today’s precision optical components.</td>
</tr>
<tr>
<td>2. Understand perform the basic and advanced metrology techniques for testing optical systems and individual optical components.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirements for Program Entrance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Algebra with Trigonometry (or Math 104 at MCC).</td>
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</table>

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT 131 Optical Elements and Ray Optics</td>
<td>4</td>
</tr>
<tr>
<td>OPT 135 Measurement and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MTH 140 Technical Mathematics I or higher</td>
<td>3-4</td>
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<tr>
<td>TEK 101 Computer Applications for Technicians</td>
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<td>PROGRAM ELECTIVES**</td>
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<td>Total CREDITS</td>
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<table>
<thead>
<tr>
<th>MANUFACTURING OPTION</th>
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</thead>
<tbody>
<tr>
<td>OPT 151 Optical Instruments and Testing</td>
</tr>
<tr>
<td>OPT 213 Optical Processes</td>
</tr>
<tr>
<td>OPT 233 Advanced Dimensional Measurement</td>
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<tr>
<td>OPT 235 Advanced Optical Manufacturing</td>
</tr>
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<td>Total</td>
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<table>
<thead>
<tr>
<th>TESTING OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT 151 Optical Instruments and Testing</td>
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<tr>
<td>OPT 201 Photo Science</td>
</tr>
<tr>
<td>OPT 211 Wave Optics and Applications</td>
</tr>
<tr>
<td>OPT 233 Advanced Dimensional Measurement</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>ELECTRO-OPTICS OPTION</th>
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</thead>
<tbody>
<tr>
<td>ELT 121 AC/DC Circuit Analysis</td>
</tr>
<tr>
<td>ELT 232 Electronics for Non-Majors</td>
</tr>
<tr>
<td>OPT 153 Fiber Optics</td>
</tr>
<tr>
<td>OPT 215 Electro-Optical Devices and Systems</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

* Students with an excellent high school mathematics and physics record may wish to select a more advanced mathematics and physics program following consultation with the appropriate department.

* Higher level mathematics may be substituted except for MTH 150, MTH 155, and MTH 156. Students considering an AAS degree are advised to take MTH 140.

** Students must consult with their advisor in selecting program electives. Depending on a student’s career objectives, the following course sequences are recommended.

www.monroecc.edu/go/academicprograms
### Paralegal Studies Certificate Program

**CIP Code:** 22.0302  
**MCC Program Code:** PLS  
**NYSED Code (DCC):** 21815

**Description**  
The Paralegal Studies Certificate program was approved by the American Bar Association (ABA) in February 2004. This program prepares graduates for entry level employment as paralegals. The entry level paralegal works under the supervision of a lawyer researching the law, investigating facts, preparing drafts of legal documents, and working with clients. They are employed in almost all areas where law related work is performed, i.e., private law firms, government agencies, insurance companies and corporations, but, in all areas of law, paralegals are prohibited from establishing attorney-client relationships, from setting legal fees, from giving legal opinions or advice, and from representing clients in court. Paralegals may not provide legal services directly to the public, except as provided by law.

Monroe Community College’s curriculum was prepared in partnership with the Monroe County Bar Association and the Paralegal Associates of Rochester. Course work emphasizes New York law, ethics and professional responsibility, procedural applications of the law, computer application in the law, and client satisfaction through legal teamwork.

Admission to the program has specific educational requirements that include either a bachelor’s degree, or an associate’s degree with 18 credit hours in broadly based liberal arts courses and significant experience in banking, finance, government, insurance, or other law-related environments (a degree in Criminal Justice is deemed to meet this requirement). As a condition of acceptance into the Paralegal Studies Certificate Program, those with minimal computer experience may be advised to register for CRC 101 Practical Computer Literacy either prior to or concurrently with matriculation in the Paralegal Studies Certificate Program. The Paralegal Advisory Board approved MCC’s selective admissions criteria.

The Paralegal Studies Certificate program commences every Fall Semester. Classes are held on Tuesday and Thursday evenings and Saturday mornings at the Damon City Campus. The curriculum consists of 17 courses varying from one credit hour to three credit hours, and the program takes 15 months to complete. Each course must be taken in the sequence indicated.

**Program Learning Outcomes**  
1) Identify legal concepts and their practical applications
2) Deliver an effective oral presentation
3) Write effectively in a variety of legal contexts
4) Use legal technology for legal research
5) Apply analytical thinking skills in legal contexts.
6) Apply knowledge of ethical obligations and reasoning to situations in the law

**Requirements for Program Entrance**  
Students seeking admission to Paralegal Studies must possess an Associate degree; Bachelor’s degree preferred. For students without a Bachelor’s degree, a departmental interview/recommendation is required.

**Distribution Requirements**  

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL SEMESTER: 7 Credit Hours</td>
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<tr>
<td>PLS 250 Paralegal Communications Skills</td>
<td>1</td>
</tr>
<tr>
<td>PLS 260 Introduction to Paralegal Studies</td>
<td>2</td>
</tr>
<tr>
<td>PLS 266 Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>PLS 284 Administrative Law</td>
<td>1</td>
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**INTERSESSION AND SPRING SEMESTER: 12 Credit Hours**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PLS 263 Contract Law for Paralegals</td>
<td>2</td>
</tr>
<tr>
<td>PLS 267 Litigation and the Federal and New York State Procedural Laws</td>
<td>3</td>
</tr>
<tr>
<td>PLS 268 Personal Injury Law</td>
<td>2</td>
</tr>
<tr>
<td>PLS 269 Domestic Relations and Family Law</td>
<td>2</td>
</tr>
<tr>
<td>PLS 272 Real Estate Law</td>
<td>2</td>
</tr>
<tr>
<td>PLS 273 Computer Support Systems</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total 12</strong></td>
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</tbody>
</table>

**SUMMER SEMESTER: 6 Credit Hours**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PLS 270 Debtor-Creditor Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 271 Corporate Law and Business Organizations</td>
<td>2</td>
</tr>
<tr>
<td>PLS 276 Law Practice Management</td>
<td>1</td>
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</tbody>
</table>

**FINAL FALL SEMESTER: 8 Credit Hours**

<table>
<thead>
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<th>Course Description</th>
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<tbody>
<tr>
<td>PLS 265 Fact-finding Research</td>
<td>1</td>
</tr>
<tr>
<td>PLS 274 Estate Planning, Estate and Trust Administration</td>
<td>3</td>
</tr>
<tr>
<td>PLS 276 Legal Ethics and Professional Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>PLS 299 Internship</td>
<td>3</td>
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<td><strong>Total 8</strong></td>
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</tbody>
</table>

**TOTAL CREDITS 33**

### Paramedic A.A.S. Degree

**CIP Code:** 21706  
**MCC Program Code:** EM01

**Description**  
This two-year associate in applied science degree program is intended for students interested in preparing for a career at the highest level of emergency medical services care - the paramedic.

Admission requirements for the program include current New York State Emergency Medical Technician Certification (available through successful completion of EMS 110). The certification sequence begins each January. Candidates for the program are reviewed beginning each September.

The program includes a very structured New York State Paramedic Certification sequence which includes classroom, hospital clinical hours, and field internships. Upon completion of the sequence, graduates will be eligible to sit for the New York State Health Department certification examination as EMT - Paramedic. Students wishing to obtain certification may also apply for the Paramedic Certificate program.

The MCC Paramedic Program is accredited by the Commission on Accreditation of Allied Health Professions [www.caahep.org] and authorized by the New York State Department of Health.

Students interested in the degree should contact the EMS Program staff at 753-3710 to discuss the requirements for admission to the program. (Housed in PSTF)

**Program Learning Outcomes**  
1) Perform a comprehensive patient assessment
2) Deliver medications according to protocols
3) Deliver life-saving interventions according to protocols
4) Manage patient care while providing safe transportation to appropriate medical facilities
5) Communicate effectively with a variety of audiences which could include: patients/families/friends or other public safety and medical professionals
6) Apply knowledge acquired from the program’s general education requirements in a variety of non-clinical roles such as management education etc.
Physiotherapy Certification

First Semester: 18 Credit Hours
- EMS 171 Critical Trauma Care (1)
- EMS 259 Paramedic Clinical and Field Experience I (5)
- EMS 270 Introduction to Paramedicine (12)

Total 18

Second Semester: 24 Credit Hours
- EMS 236 Advanced Cardiac Life Support (1)
- EMS 240 Paramedic Clinical and Field Experience II (7)
- EMS 246 Advanced Pediatric Care (1)
- EMS 253 Clinical Care in Paramedicine (8)
- EMS 272 Advanced Trauma Issues in Paramedicine (7)

Total 24

Third Semester: 12 Credits
- MTH 150 Survey of Mathematics or higher (3)
- BIO 133 Human Biology OR
- ENG 101 Composition (3)
- SOCIAL SCIENCES ELECTIVE (3)

Total 12

Fourth Semester: 10 Credits
- PSY 101 Introductory Psychology (3)
- HUMANITIES ELECTIVE (3)
- LIBERAL ARTS ELECTIVE (3)
- PHYSICAL/HEALTH EDUCATION (1)

Total 10

Total Credits 64

* SPC 144 or SPA 141 are recommended.
** HED 115 or PEC 253 are recommended.

Program Learning Outcomes
1. Perform a comprehensive patient assessment.
2. Deliver medications according to protocols.
3. Deliver life-saving interventions according to protocols.
4. Manage patient care while providing safe transportation to appropriate medical facilities.
5. Communicate effectively with a variety of audiences, which could include: patients, families/friends, or other public safety and medical professionals.
6. Apply knowledge acquired from the program’s general education requirements in a variety of non-clinical roles such as management, education, etc.

Requirements for Program Entrance
- High School diploma.
- EMT certification.
- Competitive admission - please contact the EMS Department at 585-753-3712 regarding current admissions criteria.

Program Learning Outcomes
- A.S. Degree

CIP Code: 31.0501
NYSED Code (BRI): 19670

Description
- The program is designed to prepare students to transfer to a 4-year college or university offering majors in Physical Education, Exercise Science, Sport Science, Sport Medicine/Athletic Training, or a related field. The course of studies combine liberal arts courses biology, psychology, social sciences, and mathematics with courses in Physical Education theory and activity. In addition to providing a strong foundation in the fundamentals of movement, science and sport, the program includes opportunities for exploration in the career areas. After transfer from MCC, students may choose to specialize and seek careers in fitness, sport rehabilitation, education, business, health promotion and wellness, outdoor education, and other physical education related opportunities.

(Housed in the Health and Physical Education Department)

Program Learning Outcomes
- 1) Express a full knowledge base of the content and scope of the Physical Education discipline.
- 2) Demonstrate human movement skills.
- 3) Show progress in the development of positive attitudes and their progress in the discipline.
- 4) Reflect on their personal experiences and professional goals in the discipline.
- 5) Demonstrate behavior consistent with professional standards in interpersonal and technical communication and the maintenance of a safe environment.
- 6) Communicate effectively orally and in writing.
- 7) Construct a personal fitness and wellness program.
- 8) Apply discipline-specific research to the development of a lesson or treatment plan.
- 9) Conduct an appropriate directed activity in the discipline relevant to teaching coaching athletic training sport management or sport psychology.
Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

FIRST SEMESTER: 16 Credit Hours

ENG 101 College Composition OR
ENG 200 Advanced Composition ................................................................. 3
PPE 100 Introduction to Sports Science ............................................................. 4
PPE 175 Philosophy and Principles of Physical Education and Athletics ............ 3
PPE 106 Individual Sports OR PPE 120 Team Sports ...................................... 3
PPE 150 Discovery and Adventures in Leadership ............................................ 3

Total 16

SECOND SEMESTER: 15 Credit Hours

MTH 160 Statistics I (or higher) .......................................................................... 3
BIO 134 Human Anatomy and Physiology I .................................................... 3
PPE 106 Individual Sports OR PPE 120 Team Sports ...................................... 3
PPE 214 Early Childhood Games and Activities .............................................. 3
PPE 240 Selected Topics in Physical Studies .................................................... 3

Total 15

THIRD SEMESTER: 17 Credit Hours

ENG 105 Introduction to Literature .................................................................. 3
SUNY GENERAL EDUCATION AMERICAN HISTORY, WESTERN CIVILIZATION OR
OTHER WORLD CIVILIZATIONS ELECTIVE* .................................................. 3
PPE 213 Gymnastics ......................................................................................... 2
BIO 135 Human Anatomy and Physiology II .................................................. 3
PROGRAM ELECTIVE (Professional Theory)** ................................................. 3
PPE 208 Sport Psychology ............................................................................... 3

Total 17

FOURTH SEMESTER: 16 Credit Hours

HIS 211 History of Sport ................................................................................... 3
SUNY GENERAL EDUCATION AMERICAN HISTORY, WESTERN CIVILIZATION OR
OTHER WORLD CIVILIZATIONS ELECTIVE* .................................................. 3
PPE 179 Lifeguarding+ ..................................................................................... 2
PPE 245 Dance Methods and Techniques for Physical Studies Majors ............ 1
PPE 275 Exercise Physiology ............................................................................ 4
PROGRAM ELECTIVE (Professional Theory)** ................................................. 3

Total 16

TOTAL CREDITS 64

* Choose two courses from two different SUNY General Education Areas: American
   History, Western Civilization, or Other World Civilizations.

** Program Electives in professional theory include, PPE 155, PPE 170, PPE 211, SMT
   215.

+ CPR Certification is required for all physical education students.

NOTE: Within the Physical Education program, there are two opportunities to
achieve professional fitness certification. Successful completion of PPE 100 will
allow students to be eligible to take the Physical Fitness Specialist certification
exam by the Cooper Institute. After successful completion of the entire Physical
Education program, students are eligible to take the American College of Sports
Medicine Health/Fitness Instructor certification exam.
PRECISION MACHINING

A.A.S. DEGREE

CIP Code: 48.0507
NYSED Code (BRI): 27855

Description
This program is designed to prepare graduates for employment in the precision metal working industry. It will provide the academic course work, hands-on skills, and advanced manufacturing processes required by business. The graduates will have a working knowledge of advanced manufacturing techniques that will make them more valuable to an employer. They will be able to enter or advance in such fields as mold making, machine building, tool making, die making, CNC machinist, etc., or employment in other manufacturing areas.

Students interested in this program may also be interested in the Apprentice Training & Machine Trades program.

(Housed in the Applied Technologies Department)

Program Learning Outcomes
1. Demonstrate necessary soft skills to acquire a job within a manufacturing industry.
2. Perform manual machine part production to industry standards.
3. Perform computer numerical machine part production to industry standards.
4. Demonstrate measurement techniques necessary for successful employment.
5. Compose machine tool programs necessary for successful employment.
6. Demonstrate written technical communication skills.
7. Apply mathematical skills to solve industrial problems.
8. Interpret engineering models for part production.
9. Follow standard safety practices used in industry.

Requirements for Program Entrance

Elementary Algebra with Geometry (or MTH 098 at MCC).

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours
TAM 101 Machine Shop Theory I ................................................................. 3
TAM 105 Machine Project Lab OR................................................................. 3
PROGRAM TECHNICAL ELECTIVE* .......................................................... 3
TAM 121 Mathematics for Machinists I ........................................................ 3
TAM 131 Machine Shop Print Reading I ....................................................... 3
TAM 141 Machine Shop Laboratory ............................................................. 3

SECOND SEMESTER: 17 Credit Hours
ENG 101 College Composition OR ............................................................... 3
ENG 200 Advanced Composition .................................................................. 3
TAM 123 Mathematics for Machinists II ..................................................... 3
TAM 132 Machine Shop Print Reading II ..................................................... 3
TAM 139 CNC Vertical Machine Tool Programming I .................................. 3
TAM 142 CNC Mill Setup OR .................................................................... 3
TAM 143 CNC Lathe Setup .......................................................................... 3
TAM 205 CNC Machine Project Laboratory OR ......................................... 3
PROGRAM TECHNICAL ELECTIVE* .......................................................... 2

THIRD SEMESTER: 15 Credit Hours
MATHEMATICS ELECTIVE** ..................................................................... 3
SOCIAL SCIENCE ELECTIVE ................................................................... 3
SPC 141 Interpersonal Speech Communication OR ..................................... 3
SPC 143 Small Group Communication ...................................................... 3
TAM 245 Computer Aided Manufacturing .................................................. 3
TAM 255 Computer Aided Manufacturing Project Laboratory OR ............ 3
PROGRAM TECHNICAL ELECTIVE* .......................................................... 3

Total 15

QUARTER THREE: 17 Credit Hours
ECD 101 Introduction to Economics ............................................................ 3
NATURAL SCIENCE ELECTIVE ................................................................. 3
MATHEMATICS ELECTIVE **/NATURAL SCIENCE ELECTIVE ............... 3
TAM 155 Tool and Fixture Design ............................................................... 3
TAM 241 Advanced Machine Shop Laboratory ........................................... 3
HEALTH/PHYSICAL EDUCATION ............................................................... 2

Total 17

TOTAL CREDITS 64

TAM PROGRAM TECHNICAL ELECTIVES*
TAM 115 Principles of Metallurgy (2) .............................................................. 3
TAM 142 CNC Mill Setup (1,2) ................................................................... 3
TAM 143 CNC Lathe Setup (2) .................................................................... 3
TAM 151 Geometric Dimensioning and Tolerancing for Machinists (1,2) .... 3
TAM 242 Machine Shop Practice IV ............................................................ 3
TAM 246 Computer Aided Manufacturing .................................................. 3
TAM 251 Statistical Process Control (SPC) for Machinists (1) ......................... 3

NOTE: (1)-Fall Course Offering; (2)-Spring Course Offering
* Students currently working in the precision machining industry may substitute a program elective for TAM 105, TAM 205, and TAM 255, based on work experience and approval of a faculty advisor.
** Mathematics elective should be selected with guidance from faculty advisor. MTH 104, MTH 140, MTH 141, or MTH 160 or higher will be accepted. Those contemplating a higher level degree should seek advisement for transfer information.

NOTE: All students enrolled in the program should take the MCC placement exam for advisement prior to registration. It is recommended that students have a minimum of 2 years of high school math or place MTH 104 or higher on the placement exam prior to enrolling in this program. Please seek advisement from the TAM Coordinator or faculty prior to registration. Call 585-292-3725 for advisement times.

PRECISION MACHINING - OPTICAL FABRICATION

CER TIFICATE PROGRAM

CIP Code: 15.0613
NYSED Code (BRI): 31779

Description
This certificate program is designed to prepare graduates for employment in the precision machining industry with special emphasis on optical fabrication. Optical fabrication is the manufacturing of optical components used in lasers, fiber optics, and digital imaging. Students will learn the principles and practices of precision metalworking and then apply these skills to the materials used in fiber optics, digital imaging, lasers, and other technological applications.

(Housed in the Applied Technologies Department)

Program Learning Outcomes
1. Demonstrate necessary soft skills to acquire a job within a manufacturing industry.
2. Perform manual machine part production to industry standards.
3. Perform computer numerical machine part production to industry standards.
4. Demonstrate measurement techniques necessary for successful employment.
5. Compose machine tool programs necessary for successful employment.
6. Demonstrate written technical communication skills.
7. Apply mathematical skills to solve industrial problems.
8. Interpret engineering models for part production.
9. Follow standard safety practices used in industry.

www.monroecc.edu/go/academicprograms
Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements

FIRST SEMESTER: 16 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM 121</td>
<td>Mathematics for Machinists I</td>
<td>3</td>
</tr>
<tr>
<td>TAM 131</td>
<td>Machine Shop Print Reading I</td>
<td>3</td>
</tr>
<tr>
<td>TAM 101</td>
<td>Machine Shop Theory I</td>
<td>3</td>
</tr>
<tr>
<td>TAM 141</td>
<td>Machine Shop Lab</td>
<td>3</td>
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<tr>
<td>OPT 131</td>
<td>Optical Elements and Ray Optics</td>
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SECOND SEMESTER: 14-15 Credit Hours

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<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEK 101</td>
<td>Computer Applications for Technicians OR CRC 113</td>
<td>1-2</td>
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<tr>
<td>TAM 123</td>
<td>Mathematics for Machinists II</td>
<td>3</td>
</tr>
<tr>
<td>TAM 139</td>
<td>Machine Shop Theory II</td>
<td>3</td>
</tr>
<tr>
<td>TAM 142</td>
<td>CNC Mill Set-up OR</td>
<td></td>
</tr>
<tr>
<td>TAM 143</td>
<td>CNC-Lathe Set-up OR</td>
<td>3</td>
</tr>
<tr>
<td>TAM 205</td>
<td>CNC Machining Project Lab</td>
<td>2</td>
</tr>
<tr>
<td>OPT 135</td>
<td>Measurement and Analysis</td>
<td>4</td>
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TOTAL CREDITS 32-33

Certification Program: Precision Tooling

CIP Code: 48.0907
NYSED Code (BRI): 20033
MCC Program Code: PM02

Description

This certificate program is designed to prepare graduates for employment in the precision metal-working industry in Monroe County and the Finger Lakes Region of New York State. Included in this certificate is the course work and hands-on skills development necessary to enter apprenticeship programs in mold making, machine building, tool and die making, or employment in production machining. Students enrolling in this program can also prepare for majors in the mechanical, quality, or manufacturing programs offered at Monroe Community College.

All TAM courses are approved as technical related instruction by the Bureau of Apprenticeship Training and used by the area’s local manufacturers as a means of educating current employees. Students interested in this program may also be interested in the Apprentice Training: Machine Trades program. (Housed in the Applied Technologies Department)

Program Learning Outcomes

1. Demonstrate necessary soft skills to acquire a job within a manufacturing industry.
2. Perform manual machine part production to industry standards.
3. Perform computer numerical machine part production to industry standards.
4. Demonstrate measurement techniques necessary for successful employment.
5. Compose machine tool programs necessary for successful employment.
6. Demonstrate written technical communication skills.
7. Apply mathematical skills to solve industrial problems.
8. Interpret engineering models for part production.
9. Follow standard safety practices used in industry.

Requirements for Program Entrance

Elementary Algebra with Geometry (or Math 098 at MCC).

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM 121</td>
<td>Mathematics for Machinists I</td>
<td>3</td>
</tr>
<tr>
<td>TAM 131</td>
<td>Machine Shop Print Reading I</td>
<td>3</td>
</tr>
<tr>
<td>TAM 101</td>
<td>Machine Shop Theory I</td>
<td>3</td>
</tr>
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<td>TAM 141</td>
<td>Machine Shop Lab</td>
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<tr>
<td>TAM 105</td>
<td>Machine Project Lab OR</td>
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SECOND SEMESTER: 17-18 Credit Hours

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<th>Course Title</th>
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<tbody>
<tr>
<td>TAM 123</td>
<td>Mathematics for Machinists II OR PROGRAM TECHNICAL ELECTIVE</td>
<td>3</td>
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<tr>
<td>TAM 132</td>
<td>Machine Shop Print Reading II</td>
<td>3</td>
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<td>TAM 139</td>
<td>Machine Shop Theory II</td>
<td>3</td>
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<tr>
<td>TAM 142</td>
<td>CNC Mill Set-up OR</td>
<td></td>
</tr>
<tr>
<td>TAM 143</td>
<td>CNC-Lathe Set-up OR</td>
<td>3</td>
</tr>
<tr>
<td>TAM 205</td>
<td>CNC Machining Project Lab</td>
<td>2</td>
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<tr>
<td>ENG 101</td>
<td>College Composition OR</td>
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<tr>
<td>ENG 200</td>
<td>Advanced Composition OR</td>
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PROGRAM TECHNICAL ELECTIVE

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<tbody>
<tr>
<td>TAM 115</td>
<td>Principles of Metallurgy</td>
</tr>
<tr>
<td>TAM 142</td>
<td>CNC Mill Set-up</td>
</tr>
<tr>
<td>TAM 143</td>
<td>CNC Lathe Set-up</td>
</tr>
<tr>
<td>TAM 151</td>
<td>Geometric Dimensioning and Tolerancing for Machinists</td>
</tr>
<tr>
<td>TAM 155</td>
<td>Tool and Fixture Design</td>
</tr>
<tr>
<td>TAM 241</td>
<td>Advanced Machine Shop Lab</td>
</tr>
<tr>
<td>TAM 242</td>
<td>Machine Shop Practice IV</td>
</tr>
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<td>TAM 245</td>
<td>Computer Aided Manufacturing</td>
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<td>TAM 246</td>
<td>Computer Aided Manufacturing 2</td>
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<tr>
<td>TAM 251</td>
<td>Statistical Process Control (SPC) for Machinists</td>
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<tr>
<td>TAM 255</td>
<td>Computer Aided Manufacturing Laboratory</td>
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PROGRAM GENERAL ELECTIVE

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<td>BUS 104</td>
<td>Introduction to Business</td>
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<td>CRC 101</td>
<td>Practical Computer Literacy</td>
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<td>ECO 103</td>
<td>Personal Money Management</td>
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<tr>
<td>ENG 251</td>
<td>Technical Communications</td>
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ADDITIONAL RECOMMENDED COURSES FOR APPRENTICESHIP TRAINING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM 155</td>
<td>Toolroom Technology I</td>
</tr>
<tr>
<td>TAM 242</td>
<td>Machine Shop Practice IV</td>
</tr>
</tbody>
</table>

* Students currently working in the precision machining industry may substitute a program technical elective for TAM 105 and TAM 123 and a program general/technical elective for TAM 205 based on work experience and approval of a faculty advisor.

NOTE: All students enrolled in the Certificate program should take the MCC Accuplacer exam for advisement prior to registration. It is recommended that students have a minimum of two years high school math or place at the level of MTH 104 or higher on the Accuplacer exam prior to enrolling in this program. Please seek advisement from the TAM Coordinator or a faculty advisor prior to registration. Call 685-292-3725 for an appointment or for advisement times.
Description
The Public Relations program is designed to prepare students for transfer to a four-year college or university offering programs in public relations, communications, and mass media. The curriculum provides a foundation in liberal arts and a background in communication theory, media writing and public relations. The program will enable students to better understand the role of public relations today in business, government, education and non-profit organizations.
(Housed in the Visual and Performing Arts Department)

Program Learning Outcomes
1) Describe the field of public relations
2) Describe the history of public relations from colonial America through contemporary society
3) Analyze and assess public relations theory
4) Design a public relations plan.
5) Analyze and assess award-winning public relations campaigns
6) Identify various tools of public relations practice
7) Prepare and edit a press release

Requirements for Program Entrance
Intermediate Algebra with Trigonometry (or MTH 104 at MCC).

Distribution Requirements Credit Hours

FIRST SEMESTER: 15 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition.......................... 3
COM 101 Introduction to Mass Media........................................................................... 3
PSY 101 Introductory Psychology .............................................................................. 3
MTH 160 Statistics OR higher .................................................................................. 3
SPC 142 Fundamentals of Public Speaking................................................................. 3
Total 15

SECOND SEMESTER: 15 Credit Hours
COM 109 An Introduction to Public Relations............................................................. 3
COM 120 Media Literacy ............................................................................................ 3
ANT 102 Cultural Anthropology................................................................................ 3
SPC 141 Interpersonal Speech Communication....................................................... 3
ELECTIVE*.................................................................................................................. 3
Total 15

THIRD SEMESTER: 15 Credit Hours
SOC 101 Introduction to Sociology ........................................................................... 3
COM 130 Media Writing............................................................................................ 3
SPC 143 Small Group Communication.................................................................... 3
SPC 141 Interpersonal Speech Communication....................................................... 3
ELECTIVE .................................................................................................................... 3
Total 15

FOURTH SEMESTER: 17 Credit Hours
SPC 142 Fundamentals of Public Speaking................................................................. 3
ELECTIVE .................................................................................................................... 3
PHYSICAL/HEALTH EDUCATION............................................................................ 2
COM 131 Principles of Journalism............................................................................ 3
COM 270 Media and Society..................................................................................... 3
SOCIAL SCIENCE ELECTIVE** ............................................................................... 3
Total 17

* Recommend ENG 250
** Recommended: HIS 111, HIS 112, POS 101, POS 102, ECO 101, ECO 111 (MTH 104 or equivalent pre-requisite)
SECOND SEMESTER: 18 Credit Hours
MTH 150 Survey of Mathematics ................................................................. 3
SOCIAL SCIENCE ELECTIVE ........................................................................ 3
PSC 110 Practicum in Public Safety Telecommunicator .......................... 12
Total 15

THIRD SEMESTER: 15-16 Credit Hours
PSC 202 Law Enforcement Dispatching .................................................. 7
NATURAL SCIENCE ELECTIVE ................................................................. 3-4
LIBERAL ARTS ELECTIVE ......................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................ 2
Total 15-16

FOURTH SEMESTER: 15 Credit Hours
SPC 241 Advanced Interpersonal Communication .................................. 3
PSC 212 Practicum in Law Enforcement Dispatching ............................. 12
Total 15
TOTAL CREDITS 63-64

FIRE AND EMS DISPATCHER TRACK
FIRST SEMESTER: 15 Credit Hours
PSC 100 Public Safety Telecommunicator ................................................. 7
PSC 101 Emergency Medical Dispatch .................................................... 2
ENG 101 College Composition ................................................................. 3
SPC 141 Interpersonal Speech Communication ..................................... 3
Total 15

SECOND SEMESTER: 18 Credit Hours
MTH 150 Survey of Mathematics ................................................................. 3
SOCIAL SCIENCE ELECTIVE ........................................................................ 3
PSC 110 Practicum in Public Safety Telecommunicator .......................... 12
Total 18

THIRD SEMESTER: 15-16 Credit Hours
PSC 203 Fire and EMS Dispatching ......................................................... 7
NATURAL SCIENCE ELECTIVE ................................................................. 3-4
LIBERAL ARTS ELECTIVE ......................................................................... 3
Health/Physical Education ......................................................................... 2
Total 15-16

FOURTH SEMESTER: 15 Credit Hours
SPC 241 Advanced Interpersonal Communication .................................. 3
PSC 213 Practicum in Fire and EMS Dispatching ..................................... 12
Total 15
TOTAL CREDITS 63-64

RADIOLOGIC TECHNOLOGY
A.A.S. DEGREE

CIP Code: 51.0907
NYSED Code (BRI): RA01

Description
The radiologic technologist, also known as a radiographer, is a health care professional who administers ionizing radiation (x-rays) to produce anatomic images for diagnostic, therapeutic and research purposes. The images may be recorded photographically or digitally and are interpreted by a licensed practitioner such as a radiologist (specialized physician) in the diagnosis and treatment of injury, anomalies and disease. This curriculum qualifies the student for an A.A.S. degree in Diagnostic Radiologic Technology only. Students attend didactic and laboratory classes on campus and clinical classes at area hospitals. The student is responsible for arranging transportation to and from the College and hospitals when required.

The Radiologic Technology program is a 21-month program accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; phone (312)704-5300, fax: (312)704-5304 (7-94), www.jrcert.org.

The JRCERT is recognized by the United States Department of Education as the national accreditation agency of programs for the radiographer. Successful completion of academic work and clinical experience prepares the student for admission to the American Registry Certification Examination and New York State Licensure.

Radiologic Technology is a high demand, competitive program. Readmission to the radiologic technology program is not automatic. Readmission eligibility is dependent on documented extenuating circumstances that warrant consideration and must be made within one year. Students seeking readmission to the program should contact the Admissions Office or Advising Center. Readmission would be considered only on a space-available basis.

Program Learning Outcomes
1) Demonstrate clinical competence in the performance of basic radiographic procedures
2) apply positioning skills
3) select technical factors
4) provide radiation protection
5) demonstrate patient-centered skills
6) demonstrate oral communication skills
7) demonstrate written communication skills
8) demonstrate ability to adapt to non-routine scenarios
9) evaluate image quality
10) demonstrate good work ethic
11) summarize the value of professionalism through leadership volunteering and/or lifelong learning

Requirements for Program Entrance
High school Algebra 2 with Trigonometry/Math B with a grade of C or better. High school biology/life science with a grade of C or better.
Competitive Admission — Please contact the Admissions Office regarding current admission criteria and/or geographic limitations.

Distribution Requirements
Credit Hours
FIRST SEMESTER: 23 Credit Hours
ENG 101 College Composition OR ENG 200 Advanced Composition .......... 3
BIO 142 Human Anatomy ........................................................................... 4
MTH 160 Statistics I OR
MTH 161 Statistics II OR
MTH 165 College Algebra (or higher)* ..................................................... 3
XRT 111 Radiographic Technology I** ...................................................... 9
XRT 151 Orientation/Clinical Education I** ................................................ 4
Total 23
SECOND SEMESTER: 16 Credit Hours

HUMANITIES ELECTIVE ................................................................. 3
PHY 141 Radiographic Physics .................................................... 3
XRT 122 Radiographic Technology II** ....................................... 6
XRT 152 Clinical Education II** ................................................. 4

Total 16

First Summer Session: 4 Credit Hours

XRT 153 Clinical Education III** ................................................ 4

Total 4

THIRD SEMESTER: 16 Credit Hours

PSY 101 Introductory Psychology ................................................. 3
XRT 211 Radiographic Technology III** ..................................... 3
XRT 251 Clinical Education IV** ............................................... 8
XRT 220 Radiographic Pathology I............................................... 1
XRT 215 Sectional Anatomy** ................................................... 1

Total 16

FOURTH SEMESTER: 17 Credit Hours

SOCIAL SCIENCE ELECTIVE ....................................................... 3
XRT 222 Radiographic Technology IV**** .................................... 5
XRT 252 Clinical Education V***** .............................................. 8
XRT 230 Radiographic Pathology II ............................................ 1

Total 17

Second Summer Session (optional)

XRT 253 Supplemental Clinical Education ................................... Variable

TOTAL CREDITS 76

Seven (7) weeks of study and clinical experience for the first freshman summer session is required to complete degree requirements and prerequisites for certification and licensure. This summer requirement includes course work and clinical experience at a hospital and/or the college laboratory on a full time basis (40 hours per week).

Admission to this program is conditional upon meeting medical requirements, clearance of existing problem(s), and ability to meet technical standards (physical demands) of the program.

Proof of current CPR certification is required for graduation.

* Students should consult with a program advisor for selection of proper Mathematics course.
** A grade of C or better is required to remain in the Radiologic Technology Program.
*** HED 118 Introduction to Safety and Emergency Care is recommended.
**** A grade of C or better is required to graduate.
***** A grade of C or better or successful completion of XRT 253 is required to graduate.

ACADEMIC PROGRAMS

SMALL BUSINESS MANAGEMENT

CREDENTIAL PROGRAM

CIP Code: 52.0701
MCC Program Code: BS02

NYSED Code (BRI): 01215

Description

Small Business Management is a certificate program designed to aid those students who already manage their own companies, are contemplating starting their own businesses, or work for a small business concern. This program will provide basic knowledge in the fields of accounting, marketing, management, and customer service. These credits may be applied to requirements for an A.A.S. degree in Applied Business or an A.A.S. in Entrepreneurship if a student decides to matriculate into either of those programs.

(Housed in the Business Administration and Economics Department)

Program Learning Outcomes

1) Utilize identified accounting concepts to make informed decisions about the operating performance and financial position of a small business.
2) Identify and explain critical factors in starting a small business which could include entrepreneurial objectives forms of ownership financing risk management or entrepreneurial skills.
3) Apply leadership and workplace relationship skills to effectively deal with various small business stakeholders.
4) Identify and describe laws that are relevant to the operation of a small business.
5) Develop a comprehensive business plan.
6) Describe factors involved in effective selling which could include qualifying prospects developing long term customer relationships ethical conduct customer service or selling techniques.
7) Communicate effectively using various forms of communication.
8) Demonstrate effective teamwork skills that enhance team processes.
9) Apply information management skills particularly the use of Microsoft Office software to business related tasks.

Requirements for Program Entrance

One year of high school math, including Business Math, Elementary Algebra with Geometry (or Math 098, or Math 130 at MCC).

Distribution Requirements

Credit Hours

FIRST SEMESTER 15-16 Credit Hours

MTH 130 Modern Business Mathematics (recommended) OR MTH 104 Intermediate Algebra or higher (not MTH 150)* ............................................ 3-4
BUS 200 Legal Environment of Business .................................... 3
BUS 110 Entrepreneurial Studies I .............................................. 3
ENG 101 College Composition OR ENG 290 Advanced Composition .............................................................................. 3
BUS 104 Introduction to Business ................................................ 3

Total 15-16

SECOND SEMESTER 16 Credit Hours

ACC 130 Introductory Accounting and Financial Analysis ** .............. 4
BUS 135 Supervising for Quality ................................................. 3
BUS 210 Entrepreneurial Studies II ............................................. 3
BUS 220 Business Computer Applications .................................. 3
MAR 201 Dynamics of Selling .................................................... 3

Total 16

TOTAL CREDITS 31-32

* Students with strong math skills should consult with their advisor to select the appropriate math course.
** Students who have completed ACC 101 and ACC 102 may substitute that sequence for ACC 130.
### SOLAR THERMAL TECHNOLOGY

**Certificate Program**

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<tbody>
<tr>
<td>15.0505</td>
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**Description**

The Solar Thermal Certificate is designed for the student who is seeking an entry level position as a Solar Thermal Installer and Service Technician, and those currently employed in the field of heating, ventilating, and air conditioning or related areas. The program provides training and certification in the use and maintenance of solar thermal systems. The coursework includes fundamentals of collecting and transferring solar heat, the National Electric, Plumbing, Mechanical, and Building Code, and teaches the principles of a solar thermal system. This entry level certificate will prepare students to take the North American Board of Certified Energy Practitioners (NABCEP) Solar Thermal Entry Level Certification Exam. Students interested in this program may also be interested in the Air Conditioning Technology: Heating and Ventilation program and the Heating, Ventilating, Air Conditioning program.

**Program Learning Outcomes**

1. Install solar thermal heating systems to NABCEP standards.
2. Maintain solar thermal heating systems to NABCEP standards.
3. Perform testing and adjustment of solar thermal systems to NABCEP standards.
4. Diagnose common malfunctions for solar thermal equipment to NABCEP standards.
5. Perform corrective repairs for solar thermal equipment to NABCEP standards.
6. Perform testing and adjustment of HVAC/R equipment for proper operation to manufacturer OEM standards.
7. Perform service and maintenance on HVAC/R equipment to manufacturer OEM standards.
8. Diagnose common malfunctions for HVAC/R equipment to manufacturer OEM standards.
9. Perform corrective repairs for HVAC/R equipment to manufacturer OEM standards.
11. Design and size solar thermal heating systems to NABCEP standards.
12. Select HVAC/R and solar thermal heating systems for appropriate applications.
13. Outline strategies to increase energy efficiency and reduce energy consumption of HVAC/R equipment.
14. Design and size solar thermal heating systems to NABCEP standards.
15. Install new HVAC/R equipment to manufacturer OEM standards.
16. Interpret electrical control wiring diagrams for HVAC/R control systems.

**Requirements for Program Entrance**

High School graduate or high school equivalency diploma. Elementary Algebra with Geometry (or MTH 098 at MCC).

**First Semester: 19 Credit Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HVA 101</td>
<td>Basic Refrigeration Theory</td>
<td>3</td>
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<tr>
<td>HVA 103</td>
<td>Heating Systems</td>
<td>3</td>
</tr>
<tr>
<td>HVA 105</td>
<td>Electric and Motor Controls</td>
<td>3</td>
</tr>
<tr>
<td>HVA 202</td>
<td>Boiler Systems</td>
<td>3</td>
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<tr>
<td>MTH 135</td>
<td>Introduction to Technical Mathematics</td>
<td>4</td>
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<tr>
<td>STT 101</td>
<td>Introduction to Solar Thermal Technology</td>
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Total 19

**Second Semester: 16 Credit Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>HVA 102</td>
<td>Commercial Refrigeration Theory</td>
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<tr>
<td>HVA 104</td>
<td>Commercial Air Conditioning and Heat Pumps</td>
<td>3</td>
</tr>
<tr>
<td>PHY 100</td>
<td>Preparatory Physics</td>
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<tr>
<td>STT 201</td>
<td>Solar Thermal Installation Practices</td>
<td>3</td>
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<tr>
<td>STT 209</td>
<td>Troubleshooting and Preventative Maintenance for Solar Thermal Systems</td>
<td>3</td>
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Total 16

### TOTAL CREDITS: 35

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### SPORT MANAGEMENT

**A.S. Degree**

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<td>31.0504</td>
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**Description**

A program designed for students interested in the business and marketing aspects of sport. This program provides a conceptual framework for the field through physical education coursework and incorporates hands-on experience through field work. This program will be of interest to students interested in careers in athletic administration, minor and major league sports, facility and event management, sport promotion, equipment development and retail, and client management. (Housed in the Health and Physical Education Department)

**Program Learning Outcomes**

1. Identify and describe the major forces shaping the field of Sport Management.
2. Articulate the core sport management theories as they relate to other academic disciplines which could include: business accounting, economics, psychology or history.
3. Explain the major principles of ethics and values in sport management.
4. Discuss developments in the fields of business and management as they relate to sport.
5. Apply knowledge about sport management to practical work experiences.
6. Demonstrate a sensitivity to diversity issues in interacting with both clients and customers.

**Requirements for Program Entrance**

Intermediate Algebra with Trigonometry or (MTH 104 at MCC).

**Distribution Requirements**

<table>
<thead>
<tr>
<th>Distribution Requirements</th>
<th>Credit Hours</th>
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</thead>
</table>
| First Semester: 16 Credit Hours
| ENG 101 College Composition OR ENG 200 Advanced Composition | 3 |
| PPE 106 Individual Sports or PPE 120 Team Sports | 3 |
| PPE 190 Introduction to Sport Science | 4 |
| PPE 175 Philosophy and Principles of Physical Education and Athletics | 3 |
| STT 215 Sports Management | 3 |

Total 16

**Second Semester: 16 Credit Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>HUMANITIES ELECTIVE</td>
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<td>3</td>
</tr>
<tr>
<td>ACC 101</td>
<td>Accounting Principles I</td>
<td>4</td>
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<tr>
<td>MTH 160</td>
<td>Statistics I</td>
<td>3</td>
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<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BUS 104</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 16

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### TOTAL CREDITS: 35

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The Surgical Technology program offers an Associate in Applied Science Degree. This program is designed to prepare Surgical Technologists who practice under the supervision of a registered nurse. Surgical technologists possess expertise in the theory and application of sterile and aseptic technique and combine knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures. Graduates of Surgical Technology programs are prepared to work in a variety of settings including inpatient hospital operating rooms, outpatient surgery centers, emergency rooms and central supply.

The curriculum leading to the A.A.S. degree is comprised of 64 credits. The program consists of liberal arts and sciences and surgical technology courses. As the student progresses through the curriculum, classroom theory is applied to clinical practice in the operating room setting. A grade of C or better is required for satisfactory completion of all Biology (BIO) and Surgical Technology (SGT) courses. Students are responsible for their own transportation to and from clinical sites. Current CPR certification for the professional rescuer is required for courses with a clinical component (SGT 201 and SGT 202).

The program of study must be completed within five years of matriculation. A minimum grade of C is necessary in all required Surgical Technology courses for continued matriculation in the program. No student may progress to the next Surgical Technology course level without successful completion of all courses in the previous level. Completion of Medical requirements, clearance of existing health problem(s) and ability to meet essential functions (physical & mental demands) of the program, vaccination against seasonal flu, Hepatitis B, and meningitis vaccination must be met for admission and continuation in the program. Medical requirements, including PPD (or negative X-ray), proof of immunity to varicella, and immunizations, must be met throughout the duration of the program in order for the student to attend clinical. Surgical Technology is a high demand, competitive program. Readmission to the program is not automatic and is dependent on several factors. Students seeking readmission to the program (or seeking admission after unsuccessful attempts in a program at another college) should contact the Surgical Technology Program Director for information. Readmission, if approved, is always on a space available basis. Current CPR Certification for two person professional rescuer, which includes infant, child, adult, and automated external defibrillator (AED) is required for all students. Only American Heart Association, BLS for Health Care Providers (CPR & AED) (2 year) or American Red Cross Professional Rescuer (CPR & AED) (1 year) Certification is acceptable. Proof of certification must be submitted to the department at least one month prior to starting the program. Current certification must be maintained throughout the duration of program. Students need to complete any TRS or ESL courses prior to enrollment in the program. Students must have current health insurance to participate in the program. The fee for health insurance will be added to tuition if students do not provide proof of insurance prior to the start of program.

(Housed in the Nursing Department)

**Program Learning Outcomes**

Upon completion of the Surgical Technology Program, the graduate will:

1. Apply appropriate medical knowledge and terminology in the perioperative setting, which could include one or more of the following disciplines: human anatomy, human physiology, pathophysiology, or microbiology.
2. Demonstrate theoretical and practical proficiency in performing the typical duties of a surgical technologist (such as surgical aseptic technique, surgical procedures, or patient care).
3. Apply knowledge of instrumentation and appropriate use in surgical procedures during perioperative care.
4. Discuss basic concepts of pharmacology.
5. Express the value of continued professional growth in developing a plan for lifelong learning.
6. Practice correct aseptic technique.
7. Identify and correct breaks in aseptic technique.
8. Complete a full pre-operative inventory and preparation of surgical supplies and equipment.
9. Conduct proper sterilization of supplies and equipment as part of the pre-operative preparation.
10. Function in the “First-Scrub” role on basic surgical procedures.
11. Participate actively in the scrub role in a variety of procedures across surgical specialty areas as permitted by hospital policy.
12. Participate in post-operative activities for various surgical procedures, as permitted by hospital policy.
13. Identify potential and existing safety hazards in an operating room environment.
14. Prepare and handle drugs and solutions properly (which may include following hospital or legal standards) under the supervision of a registered nurse.
15. Communicate effectively in a variety of settings or situations.
16. Assist with circulating duties.
17. Exhibit personal qualities of teamwork.
18. Express the personal qualities of empathy and respect for patients and co-workers.
19. Demonstrate the values of dependability and integrity consistent with the standards of the workplace.
20. Adhere to the standards of accountability for those practicing in the surgical professions.
21. Exhibit effective critical thinking skills (such as problem-solving, good judgment, etc.) when providing care to achieve established goals.

**Requirements for Program Entrance**

High School Diploma or GED

MCC Level B Mathematics Placement or MTH 104 with a grade of C or better. (Recommended high school course Algebra II with Trigonometry with a grade of 75 or higher)

Required Courses: High School Biology with a grade of C or better, and High School Chemistry with a grade of C or better or the equivalent MCC courses (BIO 133/132, CHE 100)

BIO 144, BIO 145 and BIO 202 grades must be no more than seven years old with a grade of “C” to be considered when the applicant is accepted for admission into the Surgical Technology program.

**Academic Programs**

www.monroec.edu/go/academicprograms
FIRST SEMESTER: 15 CREDIT HOURS

BIO 144 Human Anatomy and Physiology I* ................................................. 4
MTH 165 College Algebra or higher ................................................................. 3
HIM 104 Medical Terminology ....................................................................... 3
SGT 100 Introduction to Surgical Technology* .............................................. 4
SGT 110 Foundations of Surgical Technology* .............................................. 1
TOTAL 15

SECOND SEMESTER: 17 CREDIT HOURS

BIO 145 Human Anatomy and Physiology II* .............................................. 4
ENG 101 English Composition OR ENG 200 Advanced English Composition 3
PHL 250 Professional Ethics ........................................................................... 3
SGT 101 Surgical Pharmacology and Anesthesia* ......................................... 2
SGT 102 Principles and Practices in Surgical Technology* ......................... 5
TOTAL 17

THIRD SEMESTER — SUMMER: 4 CREDITS

BIO 202 Microbiology* .................................................................................. 4
TOTAL 4

FOURTH SEMESTER: 16 CREDITS

BIO 235 Pathophysiology* ............................................................................ 3
PSY 101 Introductory Psychology .................................................................... 3
SGT 201 Surgical Procedures* ........................................................................ 10
TOTAL 16

FIFTH SEMESTER: 12 CREDITS

SGT 251 Surgical Teamwork* ......................................................................... 10
SGT 210 Professional Issues and Certification for Surgical Technology* ......... 2
TOTAL CREDITS 64

* a grade of C or better is required for successful completion.
There are no HPE credits in this program. MCC response to SUNY Waiver Request sent to President Kress May 15, 2014 from the Office of Academic Affairs and the Provost stating the following. *Please note that courses required by local policy are not considered a compelling justification.* Achievement of learning outcomes for the health and wellness knowledge and skill area will be embedded in the program curriculum.

SUSTAINABILITY CERTIFICATE PROGRAM

CIP Code: 10.3301
MCC Program Code: SC01
NYSED Code (BRI): 32519
NYSED Code (DCC): 32520

Description

Sustainability, which is grounded on the conviction that societies should develop ways to meet their present needs without compromising the ability of future generations to provide for their own needs, is a field of concern and inquiry that overlaps a vast array of disciplines. Rather than focusing on one particular area of concern, the certificate in sustainability is designed to provide students with a broad understanding of the issues, topics, and disciplines that sustainability encompasses. Courses in the certificate program will focus on the social, economic, institutional and environmental aspects of sustainable development as they relate to both human society and the non-human environment. The objectives of the certificate program are three fold: to introduce students to the ways that different disciplines affect and are affected by the field of sustainability; to help students understand the complex web of cause and effect that interconnects those disciplines; and to connect an understanding of sustainability to larger issues of energy, the environment, social and economic justice, agriculture, etc.

In contrast to MCC’s stand-alone, vocational certificates, the sustainability certificate is designed to complement the college’s associate degree programs by allowing a given student to earn credit toward his/her degree while at the same time pursuing what amounts to a minor field of study in sustainability. The certificate requires students to complete 16-20 credits of coursework relevant to the study of sustainability; students will complete at least one approved course in each of three core areas (natural science, social science, and humanities) and may choose the remaining six credits from the list of core courses or from a list of approved electives. Sustainability is becoming a priority in a number of fields, including business, agriculture, law, natural science, and technology. This certificate will provide evidence that a given student has completed a coherent course of study in the emerging field of sustainability.

The Certificate in Sustainability requires concurrent matriculation into a degree program. The program is not financial aid eligible.

Program Learning Outcomes

1) define sustainability and identify examples on a local and global scale
2) explain how sustainability relates to their lives and their values and how their actions impact issues of sustainability.
3) develop a plan to utilize their knowledge of sustainability to change their daily habits and consumer mentality.
4) explain how social natural and economic systems are interrelated within the field of sustainability.
5) apply concepts of sustainability to their everyday lives

Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC).

Distribution Requirements Credit Hours

HUMANITIES: 3 Credit Hours
ENG 105 Introduction to Literature (GR Designation) OR
PHL 105 Technology and Values OR
SUS 101 Introduction to Sustainability ** ....................................................... 3
Total 3

SOCIAL SCIENCES*: 3 Credit Hours
GEG 102 Human Geography OR
SOC 209 Environmental Sociology OR
SUS 101 Introduction to Sustainability ** ....................................................... 3
Total 3

www.monroecc.edu/go/academicprograms
### NATURAL SCIENCES*: 3-4 Credit Hours

- BIO 116 Introduction to Environmental Science **OR**
- BIO 280 General Ecology **OR**
- GEG 130 Digital Earth **OR**
- GEO 210 Environmental Geology **OR**
- GEG 204 Climate Change: Past, Present, and Future

Total 3-4

### SERVICE-LEARNING ELECTIVE: 1-3 Credit Hours

- SVL 106 Topics in Service-Learning (Sustainability) **OR**
- SVL 101 Service-Learning Seminar **OR**
- Any course with a Service-Learning designation

Total 1-3

### ELECTIVES: 6-7 Credit Hours

Students must choose their remaining courses from the following.*

- BIO 114 Natural History of Rochester
- BIO 116 Introduction to Environmental Science
- BIO 156 General Biology II
- BIO 280 General Ecology
- ECO 101 Introduction to Economics
- ECO 112 Principles of Macroeconomics
- GEG 102 Human Geography
- GEG 104 Extreme Weather
- GEG 130 Digital Earth
- GEG 204 Extreme Climate
- GEG 211 Economic Geography
- GEO 108 Dangerous Earth - GR
- PHL 105 Technology and Values
- PHL 210 Human Rights & Democrat in Domestic and International Contexts
- SOC 209 Environmental Sociology
- SOC 210 Global Interdependence
- SUS 101 Introduction to Sustainability

Total 6-7

**TOTAL CREDITS 16-20**

* Consult the College Catalog as some of these courses have pre-requisites.

** SUS 101 does not simultaneously fulfill both the humanities and social science requirements.

### SUSTAINABILITY STUDIES

**A.S. DEGREE**

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<th>MCC Program Code:</th>
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<th>NYSED Code (DCC):</th>
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<tr>
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**Description**

Sustainability, which is grounded on the conviction that societies should develop ways to meet their present needs without compromising the ability of future generations to meet their own needs, is a field of concern and inquiry that involves a wide range of disciplines. The degree program is designed to provide students with a broad understanding of those issues, topics, and disciplines that sustainability encompasses. Courses in the program will focus on the social, economic, institutional, and environmental aspects of sustainability as they relate to both human society and the non-human environment. The objectives of the sustainability program are three fold: to introduce students to the ways that different disciplines contribute to the work of sustainability; to help students understand the complex web of cause and effect that interconnects those disciplines; and to connect an understanding of sustainability to larger issues of energy, the environment, social and economic justice, agriculture, etc.

(Housed in the Academic Foundations Department)

**Program Learning Outcomes**

1) Describe how natural social and economic systems are interrelated.
2) Evaluate the interrelated trends of population growth resource consumption and technological progress since the Industrial revolution.
3) Analyze how individual actions affect the sustainability of social economic or environmental systems.
4) Design a solution to sustainability-related problem.

**Requirements for Program Entrance**

- Level 8 Math or completion of MTH 104 with a C or higher or Algebra II with Trigonometry with a C or higher. Biology. Chemistry.

**Distribution Requirements**

<table>
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<tr>
<th>Credit Hours</th>
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### FIRST SEMESTER: 15 Credit Hours

- ENG 101 College Composition **OR**
- ENG 200 Advanced Composition
- PHL 103 Introduction to Ethics
- BIO 116 Introduction to Environmental Science
- SOC 101 Introduction to Sociology
- SUNY GENERAL EDUCATION ELECTIVE WESTERN CIVILIZATIONS OR OTHER WORLD CIVILIZATIONS

Total 15

**SECOND SEMESTER: 14 Credit Hours**

- SUNY GENERAL EDUCATION ELECTIVE AMERICAN HISTORY, ARTS OR FOREIGN LANGUAGE
- MTH 165 OR HIGHER* ............................................................................................................3
- BIO 155 General Biology I
- GEO 101 Physical Geology
- GEG 100 Physical Geography Laboratory **AND** GEG 101 Physical Geography

Total 14
### THIRD SEMESTER: 16 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<tr>
<td>GEG 102 Human Geography OR</td>
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<tr>
<td>SOC 209 Environmental Sociology</td>
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<tr>
<td>BIO 156 General Biology II OR</td>
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<tr>
<td>BIO 260 General Ecology</td>
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<tr>
<td>CHE 151 General College Chemistry I</td>
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### FOURTH SEMESTER: 17 Credit Hours

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<tr>
<td>PHY 145 College Physics I OR</td>
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<td>PHY 164 General Physics I OR</td>
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<td>PHY 161 University Physics I</td>
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<tr>
<td>CHE 152 General College Chemistry II</td>
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**TOTAL CREDITS: 62**

### SUSTAINABILITY STUDIES TRACK

#### FIRST SEMESTER: 15 Credit Hours

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<tr>
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#### SECOND SEMESTER: 17

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<td>MTH 165 OR HIGHER*</td>
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<td>BIO 155 General Biology I</td>
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<td>GEG 100 Physical Geography Laboratory I AND GEG 101 Physical Geography</td>
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<td>POS 101 Introduction to Political Science OR</td>
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#### THIRD SEMESTER: 16 Credit Hours

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<td>BIO 260 General Ecology</td>
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**TOTAL CREDITS: 64**

**TOTAL CREDITS: 62-64**
### Teaching Assistant: Adolescence

**CIP Code:** 13.1501  
**MCC Program Code:** TA02  
**NYSED Code (BRI):** 31882  
**NYSED Code (DCC):** 31883

**Description**
This program will prepare students with the required coursework for a successful career as a Teaching Assistant/Paraprofessional. The Teaching Assistant certificate provides an opportunity for teaching assistants and individuals interested in K-12 education to begin their higher education in a gradual and supportive manner. The program fulfills the college credit hour requirements for New York State level II, III and pre-professional Teaching Assistant Certificate. The certificate will also transfer into an Associate in Arts Teacher Education Degree leading to a baccalaureate degree and NYS Teacher Certification for students interested in pursuing teaching as a career.

This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing education classes, general education coursework, and elective coursework.

Graduates of this program receive a solid foundation in both the liberal arts and sciences as well as the educational functions of teaching assistants and may find employment in pre-school, elementary and secondary schools. (Housed in the Education Department)

**Program Learning Outcomes**
1. Demonstrate an understanding and be conversant about the main theoretical and sociological ideas and trends that currently influence schools classroom practice and the teaching profession.
2. Identify professional expectations and responsibilities and articulate a basic understanding of teaching assistant/teaching as a career.
3. Analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4. Summarize the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

**Requirements for Program Entrance**
- Algebra (1 year high school math or placement into Level 4 Math at MCC).

**Distribution Requirements**
- Credit Hours

#### First Semester: 16-17 Credit Hours
- EDU 100 Introduction to the Teaching Profession..................................................1  
- EDU 150 Performance and Presentation Skills for Educators...............................3  
- ENG 101 College Composition **OR**  
- ENG 200 Advanced Composition.................................................................3  
- HIS 111 History of the United States to 1865 **OR**  
- HIS 112 History of the United States from 1865..............................................3  
- PSY 101 Introductory Psychology ........................................................................3  
- MATH/NATURAL SCIENCE ELECTIVE*............................................................3-4  

**Total 16-17**

#### Second Semester: 15-16 Credit Hours
- EDU 200 Foundations of Education........................................................................3  
- PSY 202 Developmental Psychology Adolescent................................................3  
- PSY 261 Psychology of Learning and Behavior Disorders..................................3  
- MATH/NATURAL SCIENCE ELECTIVE*............................................................3-4  
- HED 130 Foundations of Personal Health and Wellness.................................3  

**Total 15-16**

**Total Credits 31-33**

* MTH 150 or higher. See advisor for appropriate placement.

---

### Teaching Assistant: Early Childhood/Childhood

**CIP Code:** 13.1501  
**MCC Program Code:** TA03  
**NYSED Code (BRI):** 31880  
**NYSED Code (DCC):** 31881

**Description**
This program will prepare students with the required coursework for a successful career as a Teaching Assistant/Paraprofessional. The Teaching Assistant certificate provides an opportunity for teaching assistants and individuals interested in K-12 education to begin their higher education in a gradual and supportive manner. The program fulfills the college credit hour requirements for New York State level II, III and pre-professional Teaching Assistant Certificate. The certificate will also transfer into an Associate in Arts Teacher Education Degree leading to a baccalaureate degree and NYS Teacher Certification for students interested in pursuing teaching as a career.

This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing education classes, general education coursework, and elective coursework.

Graduates of this program receive a solid foundation in both the liberal arts and sciences as well as the educational functions of teaching assistants and may find employment in pre-school, elementary and secondary schools. (Housed in the Education Department)

**Program Learning Outcomes**
1. Demonstrate an understanding and be conversant about the main theoretical and sociological ideas and trends that currently influence schools classroom practice and the teaching profession.
2. Identify professional expectations and responsibilities and articulate a basic understanding of teaching assistant/teaching as a career.
3. Analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4. Summarize the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

**Requirements for Program Entrance**
- Intermediate Algebra with Trigonometry or Math 104 (Level 6).

**Distribution Requirements**
- Credit Hours

#### First Semester: 17 Credit Hours
- EDU 100 Introduction to the Teaching Profession................................................1  
- ENG 101 College Composition **OR**  
- ENG 200 Advanced Composition........................................................................3  
- HED 116 Issues in Child Development and Health.............................................3  
- MTH 155 Mathematics for Elementary Teachers I............................................3  
- PSY 101 Introductory Psychology.........................................................................3  
- SCI 131 Integrated Science for Future Teachers I - The Physical World............4  

**Total 17**

#### Second Semester: 16 Credit Hours
- EDU 200 Foundations of Education.................................................................3  
- MTH 156 Mathematics for Elementary Teachers II........................................4  
- PSY 201 Developmental Psychology Child......................................................3  
- SCI 132 Integrated Science for Future Teachers II - The Living World.............4  
- PSY 261 Psychology of Learning and Behavior Disorders...............................3  

**Total 16**

**Total Credits 33**
TEACHING ASSISTANT: TECHNOLOGY
CERTIFICATE PROGRAM

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</table>

**Description**
This program will prepare students with the required coursework for a successful career as a Teaching Assistant/Paraprofessional. The Teaching Assistant certificate provides an opportunity for teaching assistants and individuals interested in K-12 education to begin their higher education in a gradual and supportive manner. The program fulfills the college credit hour requirements for New York State level II, III and pre-professional Teaching Assistant Certificate. The certificate will also transfer into an Associate in Arts Teacher Education Degree leading to a baccalaureate degree and NYS Teacher Certification for students interested in pursuing teaching as a career.

This course of study provides students with the opportunity to experience the basic fundamentals of teaching in the classroom while studying various integral aspects of the profession. The course of study also provides students with a balance of coursework between completing education classes, general education coursework, and elective coursework.

Graduates of this program receive a solid foundation in both the liberal arts and sciences as well as the educational functions of teaching assistants and may find employment in pre-school, elementary and secondary schools.

(Housed in the Education Department)

**Program Learning Outcomes**
1. Demonstrate an understanding and be conversant about the main theoretical and sociological ideas and trends that currently influence schools classroom practice and the teaching profession.
2. Identify professional expectations and responsibilities and articulate a basic understanding of teaching assistant/teaching as a career.
3. Analyze the critical issues in and implications of the education and treatment of children with learning and behavior disorders.
4. Summarize the complexities of a classroom setting and the teaching profession and appreciate the ethnic religious economic and learning diversity among students in public schools.

**Requirements for Program Entrance**
Algebra (1 year high school math or placement into Level 4 Math at MCC).

**Distribution Requirements**

**FIRST SEMESTER: 16-17 Credit Hours**
- EDU 100 Introduction to the Teaching Profession
- ENG 101 College Composition OR ENG 200 Advanced Composition
- HED 116 Issues in Child Development and Health
- PSY 101 Introductory Psychology
- PROGRAM ELECTIVE*
- MATH/NATURAL SCIENCE ELECTIVE*

**SECOND SEMESTER: 15-16 Credit Hours**
- EDU 200 Foundations of Education
- PSY 201 Developmental Psychology -- Child OR PSY 202 Developmental Psychology -- Adolescent
- PSY 261 Psychology of Learning and Behavior Disorders
- PROGRAM ELECTIVE*

**THEATRE ARTS**
A.S. DEGREE

**CIP Code:** 50.0501
**MCC Program Code:** TH01

**Description**
This program of study is designed for students who plan to transfer and earn the baccalaureate degree with a major in theatrical performance or technical theatre. The program is balanced between courses providing general theatre knowledge and those designed to develop a particular theatrical skill. A variety of theatrical shows at the college provides students with opportunities to participate in the performance and production of a theatrical show for a public audience.

**Program Learning Outcomes**
1. Discuss basic theatre fundamentals in the areas of performance and technical theatre
2. Critically analyze scripts from a variety of theatrical productions
3. Critically analyze acting from a variety of theatrical productions or performances
4. Critically analyze technical aspects from a variety of theatrical productions or performances
5. Demonstrate various skills in regard to either theatrical performance or technical theatre

**Requirements for Program Entrance**
Pre-algebra (one year of high school math or placement into Level 3 math at MCC.) Placement into TRS 105, ENG 101 or ENG 200 at initial entrance to MCC.

**Distribution Requirements**

**PERFORMANCE OPTION**

**FIRST SEMESTER: 15 Credit Hours**
- ENG 101 College Composition OR ENG 200 Advanced Composition
- MTH 150 Survey of Math OR Higher
- THE 112 Fundamentals of Acting
- Performance or Technical Theatre Elective
- THE 110 Introduction to Theatre

**SECOND SEMESTER: 15 Credit Hours**
- THE 111 Introduction to Technical Theatre
- Performance or Technical Theatre Elective
- THE 147 Readers’ Theatre
- ENG 220 Introduction to Dramatic Literature
- ART 118 Perspectives of Art History I: Ancient OR ART 119 Perspectives of Art History II

**PROGRAM ELECTIVES: 9-10 credits**
- AAD 104 Intro to Graphic Design, 2D
- AAD 105 Typography
- AAD 112 Graphic Design I
- AAD 160 Graphic Illustration, Vector Drawing
- AAD 205 Graphic Design 2
- AAD 260 Applied Imaging, Raster Graphics
- CRC 101 Practical Computer Literacy
- CRC 125 Computer Applications Software

* MTH 150 or higher. See advisor for appropriate placement.
<table>
  <tr><td>THIRD SEMESTER: 17 Credit Hours</td></tr>
  <tr><td>Performance or Technical Theatre Elective ......................................................... 3</td></tr>
  <tr><td>ART 104 Drawing I: Foundation ........................................................................... 3</td></tr>
  <tr><td>PSY 101 Introduction to Psychology OR SOC 101 Introduction to Sociology ......... 3</td></tr>
  <tr><td>PROGRAM ELECTIVE .................................................................................................3</td></tr>
  <tr><td>SOCIAL SCIENCE ELECTIVE .................................................................................. 3</td></tr>
  <tr><td>PHYSICAL/HEALTH EDUCATION ........................................................................... 2</td></tr>
  <tr><td>Total 17</td></tr>
  <tr><td>FOURTH SEMESTER: 15 Credit Hours</td></tr>
  <tr><td>Performance or Technical Theatre Elective ......................................................... 3</td></tr>
  <tr><td>NATURAL SCIENCE ELECTIVE ............................................................................... 3</td></tr>
  <tr><td>PROGRAM ELECTIVE .................................................................................................3</td></tr>
  <tr><td>HIS 112 History of the United States Since 1965 ................................................... 3</td></tr>
  <tr><td>HUMANITIES ELECTIVE ............................................................................................ 3</td></tr>
  <tr><td>Total 15</td></tr>
  <tr><td>TOTAL CREDITS 62</td></tr>
</table>
TRAVEL AND TOURISM

CREDIT PROGRAM

CIP Code: 52.1905
NYSED Code (BRI): 28514

Description
This program is designed for the student who is primarily interested in a travel and tourism concentration without the broad liberal arts background. A graduate of this program will have established a basis for a career in the travel and tourism industry, and will be qualified for at least entry-level positions in tour companies, travel agencies, tourism bureaus, cruise lines, car rental companies, and hotels. Cooperative Education provides work-based experience to expand students’ learning opportunities.

(Housed in the Hospitality Department)

Program Learning Outcomes
1) examine the interrelationships of all manner of travel suppliers.
2) analyze and compare various cruise line companies.
3) demonstrate fundamental computer entries on a system to complete an airline reservation.
4) compare the procedures and security protocols for any two or more airline companies domestic or foreign.
5) identify and critique reliable sources medical and safety information and required documentation for clients traveling internationally.
6) discuss the positive and negative aspects that tourism can bring to a region or destination

Requirements for Program Entrance
Pre-Algebra (1 year high school math or placement into Level 3 (TRS 094 or MTH 130) or higher. Placement into ENG 101.

Distribution Requirements

FIRST SEMESTER: 15 Credit Hours
GEG 215 Geography of Tourism Destinations .................................................. 3
HSP 251 Hospitality Marketing ........................................................................ 3
TVL 101 Introduction to Travel and Tourism ................................................... 3
TVL 131 Documentation in the Tourism Industry .............................................. 3
TVL 210 Introduction to Airline Reservations Systems: SABRE OR ............... 3
TVL 220 Introduction to Airline Reservations Systems: APOLLO ................... 3
Total 15

SECOND SEMESTER: 16 Credit Hours
CRC/CIS ELECTIVE ......................................................................................... 3
ENG 101 College Composition OR ENG 200 Advanced Composition .......... 3
HSP 102 Hospitality Service ........................................................................... 4
TVL 231 Tourism Specialization ..................................................................... 3
TVL 275 Current Issues and Trends in Hospitality ........................................... 3
Total 16

SUMMER SEMESTER: 4 Credit Hours
CE 260 Cooperative Education: Hospitality* ................................................ 4
Total 4

TOTAL CREDITS 35

* Students can take the Cooperative Education course during a semester or during the summer.

NOTE: Please see the Hospitality Management A.A.S. Degree – Travel, for a degree option to the Certificate program.

URBAN STUDIES

A.S. DEGREE

CIP Code: 45.1201
NYSED Code (BRI): 37567
NYSED Code (DCC): 37568

Description
The Urban Studies Program focuses on the evolution of America’s urban communities from their origins in the 17th century to the globalized cities of today. Students study the economic, social, political and cultural forces that influenced the various phases in this transition. This track focuses heavily on the contemporary challenges faced by America’s metropolitan communities coming from developments at the global, national and local levels, challenges such changes in the local economy and problems of employment, the unequal access to material, educational and cultural resources, the fair distribution of public and private resources, environmental problems and land use issues. Students are encouraged to focus on the human as well as material assets of metro communities in constructing socially and environmentally sustainable communities. The track’s academic program includes opportunities to complement the knowledge gained in the classroom with real life experiences in the greater Rochester metro area.

Program Learning Outcomes
1. Explain the origin and development of cities
2. Apply the major theoretical approaches used to understand urban social life
3. Distinguish the major research methods employed in the study of urban environments
4. Apply empirical reasoning to analyzing urban social issues
5. Apply sociological analysis to the Greater Rochester area.
6. Develop the ability to conduct sociological research within the urban environment
7. Develop the ability to communicate their research findings through written and oral communication

Requirements for Program Entrance
Algebra (1 year high school math or placement into level 4 math at MCC).

FIRST SEMESTER: 15 CREDIT HOURS
ENG 101 College Composition OR ENG 200 Advanced Composition .......... 3
SOC 101 Introduction to Sociology - WR ....................................................... 3
SUNY GENERAL EDUCATION - NATURAL SCIENCE ELECTIVE .............. 3
ANT 102 CULTURAL ANTHROPOLOGY - WR ........................................... 3
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ....................... 3
Total 15

SECOND SEMESTER: 15 CREDIT HOURS
SUNY GENERAL EDUCATION - HUMANITIES ELECTIVE ....................... 3
PROGRAM ELECTIVE ................................................................................... 3
SUNY GENERAL EDUCATION - SOCIAL SCIENCE ELECTIVE ............. 3
SOC 202 URBAN SOCIOLOGY - WR ......................................................... 3
PHL 210 Human Rights and Democracy in Domestic and International Contexts - WR, GR ............................... 3
Total 15

THIRD SEMESTER: 17 CREDIT HOURS
MTH 160 Statistics I .................................................................................... 3
PROGRAM ELECTIVE ................................................................................... 3
SOC 201 Sociology of Race and Ethnicity - WR ........................................... 3
LIBERAL ARTS ELECTIVE ........................................................................... 3
PHYSICAL/HEALTH EDUCATION ............................................................. 2
POE 101 Introduction to Political Science - WR ......................................... 3
Total 17

www.monroecc.edu/go/academicprograms
FOURTH SEMESTER: 15 CREDIT HOURS

AAD 105 Typography ........................................................................................................ 3
AAD 260 Applied Imaging, Raster Graphics ......................................................................3
MATH 265 MATHEMATICS ELECTIVE** ........................................................................3
HUMANITIES ELECTIVE ................................................................................................3
DESIGN TRACK ELECTIVE* ............................................................................................3

TOTAL 15

SECOND SEMESTER: 15 CREDIT HOURS

NATURAL SCIENCE ELECTIVE .................................................................................. 3
DESIGN TRACK ELECTIVE* ........................................................................................3
SOCIAL SCIENCE ELECTIVE** ....................................................................................3
AAD 112 Graphic Design I .............................................................................................. 3

Total 15

THIRD SEMESTER: 15 CREDIT HOURS

AAD 106 Graphic Illustration, Vector Drawing .................................................................3
AAD 211 Art Seminar/Portfolio Development ..................................................................3
AAD 212 Graphic Design 2 ..............................................................................................3

Total 17

FOURTH SEMESTER: 17 CREDIT HOURS

AAD 205 Graphic Design 2 ..............................................................................................3
AAD 210 Design Track Elective* .....................................................................................3
AAD 260 Applied Imaging, Raster Graphics ..................................................................3
MATH 265 MATHEMATICS ELECTIVE*** ..................................................................3
HUMANITIES ELECTIVE ...............................................................................................3
PHYSICAL/HEALTH EDUCATION ..................................................................................2
ELECTIVE ........................................................................................................................3

Total 17

TOTAL CREDITS 62

Academic Programs 129
**FIRST SEMESTER: 15 Credit Hours**

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<td>MATHEMATICS ELECTIVE***</td>
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**TOTAL CREDITS 62**

**DESIGN TRACK ELECTIVES**

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<td>AAD 167 Web Design: Graphics (Design for On-Line Publishing)</td>
<td>3</td>
</tr>
<tr>
<td>AAD 256 Motion Graphics</td>
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</tr>
<tr>
<td>ART 110 Comics and Sequential Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 121 Perspectives of Art History III: Non-West</td>
<td>3</td>
</tr>
<tr>
<td>ART 154 Drawing the Human Figure</td>
<td>3</td>
</tr>
<tr>
<td>ART 204 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 205 Commercial Illustrations I</td>
<td>3</td>
</tr>
</tbody>
</table>

**ILLUSTRATION TRACK ELECTIVES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AAD 108 Ideation, Concept Development</td>
<td>3</td>
</tr>
<tr>
<td>AAD 167 Web Design: Graphics (Design for On-Line Publishing)</td>
<td>3</td>
</tr>
<tr>
<td>AAD 256 Motion Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ART 108 The Sketchbook &amp; the Creative Process</td>
<td>1</td>
</tr>
<tr>
<td>ART 110 Comics and Sequential Art</td>
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</table>

* Suggest ART 118
** Suggest ART 119
*** Suggest MTH 150
## Visual Communication Technology: Photography-Television

### A.A.S. Degree

<table>
<thead>
<tr>
<th>CIP Code: 10.0202</th>
<th>MCC Program Code: VC02</th>
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<tbody>
<tr>
<td>NYSED Code (BRI): 86149</td>
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</table>

**Description**

This program is designed for individuals seeking professional training in photography, television, radio, and video. The curriculum prepares students for entry level positions in these fields, as well as transfer to colleges and universities with communication programs. In addition to intensive hands-on laboratory experiences covering visual principles, materials, equipment and processes, television, radio and audio production techniques and electronic image creation, the student will explore business practices and procedures commonly associated with the media field.

This program encourages the selection of electives that are most appropriate to the student’s specific career goals and/or transfer program requirements of four-year institutions. Courses in speech, theatre, art, business and introductory computer activities are highly desirable additions to the basic program.

(Housed in the Visual and Performing Arts Department)

### Program Learning Outcomes

1. Demonstrate the mastery of specific functions and controls of a photographic camera.
2. Demonstrate the mastery of specific functions and controls of a video camera.
3. Display the ability to set up in studio practice specific lighting diagrams.
4. Use and respond to instructions applying specific lighting terminology.
5. Apply an understanding of compositional rules and their application to still and moving images.
6. Express effective methods of storytelling and relate them to various still or moving images.
7. Set up and adjust audio levels correctly in recording situations.
8. Set up and adjust audio levels correctly in editing situations.
9. Express with a functional understanding the basis of visual communication theory and its potential influence on culture and identity.

### Requirements for Program Entrance

Algebra (1 year high school math or placement into Level 4 Math at MCC). (Photography recommended).

### Distribution Requirements

**FIRST SEMESTER: 15 Credit Hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 College Composition OR ENG 200 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPC 140 Introduction to Speech Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>SPC 141 Interpersonal Speech Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>SPC 142 Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>SPC 143 Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>PHO 106 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>COM 101 Introduction to Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>AAD 104 Intro to Graphic Design, 2D OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 115 Computer Generated Images</td>
<td>3</td>
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**Total 15**

**SECOND SEMESTER: 15 Credit Hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HUMANITIES ELECTIVE</td>
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</tr>
<tr>
<td>COM 120 Media Literacy</td>
<td>3</td>
</tr>
<tr>
<td>COM 150 Video Production I OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 202 Techniques of Television I OR</td>
<td>3</td>
</tr>
<tr>
<td>COMMUNICATION /PHOTOGRAPHY ELECTIVE*</td>
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**Total 15**

### THIRD SEMESTER: 17 Credit Hours

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>COMMUNICATION /PHOTOGRAPHY ELECTIVES*</td>
<td>9</td>
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<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
<td>3</td>
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<tr>
<td>PHYSICAL/HEALTH EDUCATION</td>
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<td>NATURAL SCIENCE ELECTIVE</td>
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**Total 17**

### FOURTH SEMESTER: 15 Credit Hours

<table>
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<td>HUMANITIES ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCIENCE ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td>COMMUNICATION /PHOTOGRAPHY ELECTIVE*</td>
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<tr>
<td>ELECTIVE</td>
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<tr>
<td>COM 270 Media and Society</td>
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</table>

**Total 15**

**TOTAL CREDITS 62**

### Communication /Photography Electives

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>AAD 256 Motion Graphics</td>
<td>3</td>
</tr>
<tr>
<td>AAD 260 Applied Imaging, Raster Graphics</td>
<td>3</td>
</tr>
<tr>
<td>COM 160 Media Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM 152 Broadcast Performance</td>
<td>3</td>
</tr>
<tr>
<td>COM 202 Techniques of Television I</td>
<td>3</td>
</tr>
<tr>
<td>COM 203 Compositing and Visual Effects</td>
<td>3</td>
</tr>
<tr>
<td>COM 204 Radio Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 211 Practicum in Media I</td>
<td>3</td>
</tr>
<tr>
<td>COM 212 Techniques of Television II</td>
<td>3</td>
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<tr>
<td>COM 221 Practicum in Media II</td>
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<tr>
<td>COM 230 Scriptwriting</td>
<td>3</td>
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<tr>
<td>COM 284 Video Production II</td>
<td>3</td>
</tr>
<tr>
<td>COM 287 Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>PHO 113 Media Photography II</td>
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<tr>
<td>PHO 164 Digital Imaging</td>
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<td>PHO 213 Color Photography</td>
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<tr>
<td>PHO 223 Photographic Documentation</td>
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[www.monroecc.edu/go/academicprograms](http://www.monroecc.edu/go/academicprograms)
OTHER COURSES OF STUDY

In addition to the associate degree and certificate programs listed on the previous pages, Monroe Community College offers many courses to support students, academic and career interests. Many of these courses lead to a credential or certification by an external agency. Information concerning these courses and their potential to enhance students, educational and employment goals can be obtained from the department listed or the Admissions Office.

CAREER SPECIFIC COURSES

For courses leading to the credential of:

ALCOHOLISM COUNSELOR
Contact the Human Services Department at the Damon City Campus, 585.262.1628

CERTIFIED FIRST RESPONDER
Contact the Public Safety Training Center, 585.753.3800

CHILD DEVELOPMENT ASSOCIATE
Contact the Education Department at the Damon City Campus, 585.262.1460

COMMUNITY FIRST AID AND SAFETY
Contact the Health and Physical Education Department at the Brighton Campus at 585.292.2061 or at the Public Safety Training Center at the Public Safety Training Facility, 585.753.3800

CPR
Contact the Health and Physical Education Department at the Brighton Campus, 585.292.2061 or the Public Safety training Center at the Public Safety Training Facility, 585.753.3800

EMERGENCY MEDICAL TECHNICIAN
Contact the Public Safety Training Center, 585.753.3800

HEALTH FITNESS INSTRUCTOR
Contact the Health and Physical Education Department at the Brighton Campus, 585.292.2061

NURSING ASSISTANT
Contact the Nursing Department at the Brighton Campus, 585.292.2034

PARAMEDIC
Contact the Public Safety Training Center, 585.753.3800

PUBLIC SCHOOL COACH
Contact the Physical Education Department at the Brighton Campus, 585.292.2061.