The following courses will fulfill requirements for the Associate in Science and Arts Degree. It is designed for students who plan to transfer to G.V.S.U. and major in Mathematics after completing the A.S.A. degree at M.C.C.

**REQUIRED FOUNDATIONAL SKILLS** – You must demonstrate a minimum level of achievement, either by successful testing or satisfactory course completion (a grade of “C” or better) in four areas:

| 1. Writing | English 085, 089, 091 or 114 |
| 2. Reading | Reading 040A or 040C |
| 3. Math | Mathematics 050 or 107 (or complete higher level course) |
| 4. Computers | CIS 100 or any other CIS course (Consult a counselor regarding transferability. CIS 110 or 120A are strongly recommended.) |

English, Reading and Mathematics Placement Tests may be required and are available in Testing Services, located in Room 134 – 777-0394. English and Reading placement tests may be waived if you show documentation of a proficiency level 1 or 2 on the high school MEAP or MME writing and reading tests or if you have an ACT composite score of 22 or greater. The Mathematics placement test may be waived if you show documentation of a score of 28 or above on the ACT Math test.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION</th>
<th>MINIMUM CREDITS</th>
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<tbody>
<tr>
<td><strong>COMMUNICATION</strong></td>
<td>6</td>
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<tr>
<td>English 101 and 102 English Composition</td>
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<tr>
<td><strong>SCIENCE/MATH</strong></td>
<td>8</td>
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<tr>
<td>Math 161 Calculus I and at least 4 credit hours in a laboratory science – choose from:</td>
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<tr>
<td>Biology 100 (10A, B, C, D, E, F, G, H, J), 103 Lec &amp; 103A, 104 Lec &amp; 104A, 105 Lec &amp; 105C, 106 Lec &amp; 106A, 109, 110, 120, 122, 207 Lec &amp; 207A</td>
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<tr>
<td>Geography 101A, 215</td>
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<tr>
<td>Geology 101A, 102</td>
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<tr>
<td>Physical Science 101</td>
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<td>Physics 201L&amp;L, 202L&amp;L, 203L&amp;L, 204L&amp;L</td>
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<tr>
<td><strong>Biology 100 modules are no longer being offered.</strong></td>
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<tr>
<td>!!! Chemistry Placement Test is required prior to taking Chemistry 101 Lec &amp; 101A</td>
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</table>

| THE HUMAN EXPERIENCE | 3 |
| **AESTHETIC VALUES** | |
| Art 104, 105B (was 105), 107, 108, 109, 204B (was 204), 205, 207, 208, 209, 211 |
| Dance 100, 101, 102, 106, 200, 201, 206, 213, 218 |
| English 208 (or Communications 203), 223 |
| Music – any 100 level or above course |

| ETHICS AND LOGIC | 3 |
| Philosophy 101, 102, 104, 202, 204, 205, 207 |
MINIMUM CREDITS

### SOCIAL RELATIONSHIPS
- Economics 101, 102, 130
- Psychology 102, 201, 202, 203, 205A, 207, 208, 210 (same as Sociology 210)
- Sociology 101, 102, 202, 203, 206, 210 (same as Psychology 210)
- Women’s Studies 101
(Psychology 201 is a requirement for teacher certification.)

### HUMAN CULTURES
#### WESTERN WORLD
- Art 198, 199, 202
- English 200, 201, 204, 205, 206, 210, 213, 225, 226, 227, 228
- History 101, *102, 204
- Humanities 195
- Music 103
- Political Science 203
- Theater 201

### AMERICAN
- History 201, 202, 207, 211
- Political Science 111, 205

### INTERNATIONAL
If the credit hours from AMERICAN CULTURES and SOCIAL RELATIONSHIPS total less than 8 credits, the choices are:
- Anthropology 103, 110
- Geography 104 (was 102A, 102C), 105
- History 195
- Political Science 202, 211
If the credit hours from AMERICAN CULTURES and SOCIAL RELATIONSHIPS total 8 credits or more, then other options are:
- English 207, 211, 218
- French 101, 102, 201, 202
- German 101, 102, 201, 202
- History *210
- Philosophy 203, 210
- Spanish 101, 102, 201, 202

### PHYSICAL EDUCATION
Choose one from PEA 101A, 103, 104A, 118, or 201 and one PEA or DNC credit hour of choice.

### CHOOSE FROM THE FOLLOWING FOR A TOTAL OF 62 CREDITS

#### ADDITIONAL G.V.S.U. GENERAL EDUCATION REQUIREMENTS
Choose one course from the following if not taken to fulfill a general education requirement:
- Anthropology 110; English 211; Foreign Language 202; Geography 105; Philosophy 210; Political Science 211
Choose one course from the following if not taken to fulfill a general education requirement (not required for teacher preparation): Anthropology 103; Sociology 102, 202

#### MAJOR RELATED COURSES

##### Non-Teacher Certification
- Mathematics 162 Calculus II
- Mathematics 215 Probability and Statistics for Engineering
- Mathematics 274 Linear Algebra and Matrices
  - or
- Mathematics 276 Linear Algebra with Applications
- Mathematics 283 Calculus III
- Physics 203L&L Engineering Physics, Lec and Lab (other options available at G.V.S.U.)
- CIS 160A Visual Basic Programming (other option available at G.V.S.U.)
**Elementary Teacher Certification**

Mathematics 162 Calculus II 3
Mathematics 215 Probability and Statistics for Engineering 3
Mathematics 274 Linear Algebra and Matrices 2

or

Mathematics 276 Linear Algebra with Applications 3
Education 225 Child Development 3
Mathematics 105 Mathematics for Elementary Teachers 4

**Secondary Teacher Certification**

Mathematics 162 Calculus II 3
Mathematics 215 Probability and Statistics for Engineering 3
Mathematics 283 Calculus III 4
Mathematics 274 Linear Algebra and Matrices 2

or

Mathematics 276 Linear Algebra with Applications 3
Education 225 Child Development 3
Choose one course from (other options available at G.V.S.U.): 3-5
Physics 203L&L
CIS 160

**COGNATE REQUIREMENTS**

B.A. - Foreign Language – third-semester proficiency 0-12
B.S. – Fulfilled with major requirements.

**ELECTIVE(S)** – Consult a counselor variable

TOTAL 62

*G.V.S.U. awards the same equivalency credit for M.C.C.’s History 102 and 210. Students are advised not to take both courses at M.C.C. if they wish to transfer to G.V.S.U.*

Transfer students are required to have a minimum transfer GPA of 2.5.

Students should check the M.C.C. catalog for course prerequisites.

It is recommended that Mathematics majors become familiar with the Mathematics section in the G.V.S.U. catalog; copies are available in Room 1106 in the Stevenson Center for Higher Education.