IT IS IMPORTANT TO SEE AN M.C.C. COUNSELOR EACH SEMESTER FOR ACADEMIC ADVISING. TO SCHEDULE AN APPOINTMENT CALL (231) 777-0362.

Muskegon Community College Curriculum Guide

Curriculum: BIOLOGY – CENTRAL MICHIGAN UNIVERSITY  
Curriculum Code: C04A

The following courses will fulfill requirements for the Associate in Science and Arts Degree. It is designed for students who plan to transfer to C.M.U. and major in Biology 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:

<table>
<thead>
<tr>
<th>Skill</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Writing</td>
<td>English 085, 089, 091 or 114</td>
</tr>
<tr>
<td>2. Reading</td>
<td>Reading 040A or 040C</td>
</tr>
<tr>
<td>3. Math</td>
<td>Mathematics 50 or 107 (or complete higher level course)</td>
</tr>
<tr>
<td>4. Computers</td>
<td>CIS 100 or any other CIS course (Consult a counselor regarding transferability. C110 or 120A are strongly recommended.)</td>
</tr>
</tbody>
</table>

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.

**MINIMUM CREDITS**

**GENERAL EDUCATION**

**COMMUNICATION**

English 101 and 102 English Composition  
6

**SCIENCE/MATH**

Biology 100 (any 4 modules)  
4

or

Biology 103Lec & 103A Introductory Biology, Lec & Lab  
4

Physics 201 Principles of Physics (prerequisite: Mathematics 112)  
4

(Microscopy has the option of Physics 201 or 203 – prerequisite: Math 161)

(Biology 100 modules are no longer being offered.)

**THE HUMAN EXPERIENCE**

**AESTHETIC VALUES**

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

**ETHICS AND LOGIC**

Philosophy 101, 102, 104, 202, 204, 205, 207  
3

**SOCIAL RELATIONSHIPS**

Economics 101, 102, 130  
Psychology 102, 201, 202, 203, 210 (same course as Sociology 210)  
Sociology 101, 102, 202, 203, 206, 210 (same course as Psychology 210)  
Women’s Studies 101  
3
HUMAN CULTURES

WESTERN WORLD  3
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  3
History 201, 202, 207, 211, 220
Political Science 111, 205, 220

INTERNATIONAL  3
If the credit hours from AMERICAN CULTURES and SOCIAL RELATIONS total less than 8 credits, the choices are:
Anthropology 103, 110
Geography 104 (was 102A, 102C), 105
History 195
Political Science 202, 210, 211
If the credit hours from AMERICAN CULTURES and SOCIAL RELATIONS 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  2
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

C.M.U. COMPETENCY REQUIREMENT  3
Communications 101 Oral Communications
or
Communications 201 Public Speaking
or
Communications 210 Introduction to Debate (if available)

MAJOR RELATED COURSES  4
Biology 207Lec & 207A Microbiology, L&L

Pre-Professional/Pre-Graduate  4
Physics 202 Principles of Physics
Chemistry 101Lec & 101A and 102Lec & 102A General and Inorganic, L&L (prereq: Chemistry 100Lec & 100A or proficiency)
Chemistry 201E & 201F and 202F & 202G Organic, L&L
Mathematics 161 Calculus I
Mathematics 162 Calculus II (recommended)
Mathematics 215 Probability and Statistics for Engineering (other option is available at C.M.U.)

Microscopy  4
Chemistry 101Lec & 101A and 102Lec & 102A General and Inorganic, L&L (prereq: Chemistry 100Lec & 100A or proficiency)
(Other option is available at C.M.U. but these are req. to take M.C.C.’s Chemistry 201E & 201F)
Chemistry 201E & 201F and 202F & 202G Organic, L&L (other option is available at C.M.U.)
Physics 202 Principles of Physics (or Physics 204 – prerequisite: Mathematics 162)
Mathematics 112 Trigonometric Functions with Coordinate Geometry
Secondary Education
Physics 202 Principles of Physics 4
Chemistry 100Lec & 100A Fundamentals of Chemistry, L&L 5
Business 105 Business Statistics (other option available at C.M.U.) 3
or
Mathematics 115 Probability and Statistics (other option available at C.M.U.) 3

Natural Resources and General Options
Chemistry 100Lec & 100A Fundamentals of Chemistry, L&L (prerequisite: Mathematics 50) (and Chemistry 342 at C.M.U.) (other option is available at C.M.U.) 5
or
Chemistry 101Lec & 101A and 102Lec & 102A General and Inorganic, L&L (prerequisite: Mathematics 109 or 111 and Chemistry 100Lec & 100A or proficiency) (other option is available at C.M.U.) 5
Mathematics 215 Probability and Statistics for Engineering (prerequisite: Mathematics 161) (other option is available at C.M.U.) (not required for General option) 3

Chemistry Placement Test is required prior to taking Chemistry 101Lec & 101A. Testing Services is in Room 134. Call 777-0394 for an appointment.

ELECTIVE(S) variable

TOTAL 62

NOTES:
In order to satisfy the University Program General Education Requirements area at C.M.U., your final community college transcript must be stamped MACRAO Agreement Satisfied.

A second part of C.M.U.’s General Education Requirements includes three basic competencies which can be satisfied at M.C.C. before transferring to C.M.U. by passing the following courses with a grade of “C” or better: English 101 and 102, Communications 101 or 201 or 210, and Mathematics 50 or above (except Mathematics 105). C.M.U. requires these competencies to be fulfilled within the first 56 credit hours.

Transfer students should normally have a minimum G.P.A. of 2.5 prior to transferring to C.M.U. For further information contact the Admissions Office at C.M.U.

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

It is recommended that Biology majors become familiar with the Biology section in the C.M.U. Bulletin found at https://bulletins.cmich.edu.

The information contained in this curriculum guide is accurate as of June 2010 and is subject to change by both institutions.