

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: CHEMISTRY – GRAND VALLEY STATE UNIVERSITY

Curriculum Code: G20B

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 Chemistry 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.

<u>GENERAL EDUCATION</u>	<u>MINIMUM CREDITS</u>
<u>COMMUNICATION</u>	
English 101 and 102 English Composition	6
<u>SCIENCE/MATH</u>	
Chemistry 101Lec & 101A General & Inorganic, Lec & Lab	5
Mathematics 161 Calculus I	4
Chemistry Placement Test is required prior to taking Chemistry 101Lec & 101A.	
<u>THE HUMAN EXPERIENCE</u>	
<u>AESTHETIC VALUES</u>	3
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	
Theater 101, 102, 108, 120, 141, 142, 144, 145, 147, 148, 160, 201, 202, 203, 210, 212, 217, 260	
<u>ETHICS AND LOGIC</u>	3
Philosophy 101, 102, 104, 202, 204, 205, 207	
<u>SOCIAL RELATIONSHIPS</u>	3
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	

MINIMUM CREDITS**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

3

AMERICAN

History 201, 202, 207, 211
 Political Science 111, 205

3

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

3

PHYSICAL EDUCATION

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

2

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

0-4

Choose one course from the following if not taken to fulfill a general education requirement:
 Anthropology 103; Sociology 102, 202

0-3

MAJOR RELATED COURSES

Chemistry 102Lec & 102A General & Inorganic, Lec & Lab
 **Chemistry 201E & 201F Organic, Lec & Lab
 **Chemistry 202F & 202G Organic, Lec & Lab

5

5

5

COGNATE REQUIREMENTS

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

0-12

PROFESSIONAL EMPHASIS

Mathematics 162 Calculus II
 Physics 203L&L Engineering Physics, Lec & Lab
 Physics 204L&L Engineering Physics, Lec & Lab

3

5

5

or

MINIMUM CREDITS**TECHNICAL EMPHASIS**

Mathematics 115 Probability & Statistics	3
<u>or</u>	
Business 105 Business Statistics	3
Physics 201L&L Principles of Physics, Lec & Lab	4
Physics 202L&L Principles of Physics, Lec & Lab	4
CIS 160A Visual Basic Programming (other option available at G.V.S.U.)	3

or**SECONDARY EDUCATION EMPHASIS**

Education 101A (was 101) Introduction to Education (if student <u>started M.C.C. prior to Fall 2009</u>)	3
Physics 201L&L Principles of Physics, Lec & Lab	4
Physics 202L&L Principles of Physics, Lec & Lab	4
Geology 101A Introduction to Physical Geology	4
Biology 103Lec & 103A and 104Lec & 104A Introductory Biology, Lec & Lab	8

or**BIOCHEMISTRY AND BIOTECHNOLOGY EMPHASIS**

Mathematics 162 Calculus II (if graduate school is planned)	3
Physics 201L&L and 202L&L Principles of Physics, Lec & Lab	8
<u>or</u>	
Physics 203L&L and 204L&L Engineering Physics, Lec & Lab (if graduate school is planned)	10
Biology 103Lec & 103A <u>or</u> 100 (10A,F,G,H) <u>or</u> (10A,E,F,G) Introductory Biology	4
(Biology 100 modules are no longer being offered.)	
Biology 207Lec & 207A Microbiology, Lec & Lab (other option available at G.V.S.U.)	4

or**ENVIRONMENTAL EMPHASIS**

Physics 201L&L and 202L&L Principles of Physics, Lec & Lab	8
<u>or</u>	
Physics 203L&L and 204L&L Engineering Physics, Lec & Lab (if graduate school is planned)	10
CIS 110 <u>or</u> 120A Computer course	3
Mathematics 115 <u>or</u> Business 105 Statistics	3
Mathematics 162 Calculus II (if graduate school is planned)	3
Geography 231 Introduction to Geographic Information Systems (opt. for Nat. Res. Man. and Geology Tracks)	3
Geology 101A Introduction to Physical Geology (Nat. Res. Man. and Geology Tracks)	4
Geology 102 Introduction to Earth History (Geology Track)	4
Philosophy 207 Environmental Ethics (opt. for Biology Track) (if not taken for general education)	3
Biology 103Lec & 103A <u>or</u> 100 (10A,F,G,H) <u>or</u> (10A,E,F,G) Introductory Biology (Biology Track)	4
(Biology 100 modules are no longer being offered.)	

ELECTIVE(S)

variable

TOTAL 62

NOTES:

*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.

**These courses transfer as G.V.S.U.'s Chemistry 241 and 242. Chemistry students will be required to take a transition Chemistry course at G.V.S.U. to receive credit for G.V.S.U.'s Chemistry 245, 246, 247 and 248.

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

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

The Chemistry Department at G.V.S.U. is accredited by the American Chemical Society.

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

The information contained in this curriculum guide is accurate as of March 2011 and is subject to change by both institutions.