

**MICHIGAN STATE BOARD OF EDUCATION  
PERIODIC REVIEW/PROGRAM EVALUATION**

**SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM**

Institution	University of Detroit Mercy	Date:	03/01/07
Specialty Studies Program	Chemistry		
Program Standards	Michigan State Board of Education	Standards Date:	Aug. 2002
Program Contact Person(s)	Diane C. Manica, (313) 578-0425, <a href="mailto:manicadi@udmercy.edu">manicadi@udmercy.edu</a> Kathy Bush, Interim Chair, (313) 993-3254, <a href="mailto:bushkt@udmercy.edu">bushkt@udmercy.edu</a>		

**DIRECTIONS:** On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
Curriculum and Methods in Secondary Schools II: Science	EDU 475	3			3	3			3
General Chemistry I	CHM 107	3			3	3			3
General Chemistry I Lab	CHM 110	1			1	1			1
General Chemistry II	CHM 108	3			3	3			3
General Chemistry II Lab	CHM 111	2			2	2			2
Organic Chemistry I	CHM 227	3			3	3			3
Organic Chemistry I Lab	CHM 228	2			2	2			2
Organic Chemistry II	CHM 229	3			3				
Organic Chemistry II Lab	CHM 230	2			2				
Physical Chemistry Lab I	CHM 333	1			1				
Physical Chemistry Lab II	CHM 334	1			1				
Chemical Thermodynamics	CHM 341	3			3				
Chemical Dynamics and Quantum Chemistry	CHM 342	3			3				
Biochemistry I	CHM 471	3			3	3			3
Biochemistry II OR**	CHM 472	3			3	3			3

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
Basic Biochemistry	CHM 470	3			3	3			3
<b>CHEMISTRY AND SOCIETY (Choose one)</b>					3	3			3
Chemistry and Society	CHM 103	3							
Industrial Chemistry Societal Issues	CHM 429	3							
Biochemical Social Issues	CHM 474	3							
** Students may take CHM 471 and CHM 472 as a sequence, or they may take CHM 470.					36-39	23-26			23-26
Required pre-requisite courses not included in credit total: MTH 140 Elementary Functions, or MTH 141 Analytic Geometry and Calculus I PHY 130 General Physics I PHY 131 General Physics I Lab PHY 132 General Physics II PHY 133 General Physics II Lab ***Chemistry Majors (3 credits) take CHM 387 Quantitative Analysis as part of the CES requirements in the UDM Core Curriculum.					3 4 3 1 3 1	3 4			3 4
Total Number of SEMESTER HOURS <u>required</u> for each option offered: * If the institution assigns a different type of credit, please convert to semester hours. Please provide descriptions for all courses contained on the above listing. Descriptions must provide enough information to show that standards could logically be met in these courses					36-39	23-26			23-26