

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

SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM

Institution University of Detroit Mercy

Date: 6-7-05
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Specialty Studies Program Computer Science (NR)

Program Standards Michigan State Board of Education

Standards Date: November 2000

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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.		
Introduction to Computer Science I	CSC 171**	3			3	3			3	
Introduction to Computer Science II	CSC 172	3			3	3			3	
Assembly Language	CSC 271	3			3					
Software Construction	CSC 345	3			3	3			3	
Database Design	CSC 354	3			3					
JAVA	CSC 413	3			3	3			3	
Unix Systems Programming	CSC 417	3			3	3			3	
Data Structures	CSC 443	3			3	3			3	
Operating Systems	CSC 449	3			3	3			3	
Seminar in Computer Science****	CSC 469	3			3					
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.						30***	21***			21

<p>Supportive Courses:</p> <p>**MTH 141 Analytic Geometry and Calculus 1 is a co-requisite for CSC 171 or permission of the instructor. Increasingly, students are being admitted with the permission of the instructor and being successful in the course.</p> <p>*** The major for a UDM Bachelor of Science in Computer Science is a flexible 76 hour major that is continuously updated to meet the new challenges of this evolving field. Education candidates follow the basic program summarized here and the 34 Education hours for secondary education. The CSC and EDU faculty, however, recommend that to enhance their skills and knowledge as individually necessary that they also take additional electives such as:</p> <p>EE 364/365 Digital Logic Circuits I and its Laboratory. (4 credits)</p> <p>EE 468 Computer Networking (3 credits)</p> <p>EE 480 Computer Organization and Architecture (3 credits) EE 364 is a prerequisite.</p> <p>CSC 441 Object-Oriented Programming (3 credits) A year of computer programming is a prerequisite.</p> <p>CSC 452 Advanced Java (3 credits) CSC 413 is a prerequisite.</p> <p>CSC 457 Software Project Management (3 credits) CSC 345 is a prerequisite.</p> <p>CSC 464 Parallel Programming (3 credits) Prerequisites are: CSC 172, CSC 345, and CSC 445 Numerical Analysis.</p> <p>CSC 467 Distributed Computation (3 credits) Prerequisites are: CSC 172 and CSC 443.</p> <p>****If a student needs preliminary instruction in technical writing, he/she may take ENL 303 Technical Writing (3 credits) prior to enrolling in CSC 469 or as a co-requisite.</p>			
<p>Total Number of SEMESTER HOURS with prerequisites and supportive classes is determined individually based on students' background and goals.</p>			