

**Bachelor of Science with Major in Mathematics
Computer Science Concentration
(For Students entering in Fall 2008)**

Freshman Year/Fall Semester		Cr.	Freshman Year/Spring Semester		Cr.
___ 92.131	Calculus I	4	___ 92.132	Calculus II	4
___ 91.101	Computing I	4	___ 91.102	Computing II	3
___ . . .	Science	3	___ . . .	Science	3
___ . . .	Science Lab	1	___ . . .	Science Lab	1
___ 42.101	(Gen. Ed.) College Writing I	<u>3</u>	___ 42.102	(Gen. Ed.) College Writing II	<u>3</u>
		15			14

Sophomore Year/Fall Semester		Cr.	Sophomore Year/Spring Semester		Cr.
___ 92.231	Calculus III	4	___ 92.23	Differential Equations (234 or 236)	3
___ 92.221	Linear Algebra I	3	___ 92.222	Linear Algebra II	3
___ 91.201	Computing III	4	___ . . .	Free Elective	3
___ 42.229	Writing Requirement	<u>3</u>	___ . . .	(Gen. Ed.) AH	3
		14	___ . . .	(Gen. Ed.) SS	<u>3</u>
					15

Junior Year/Fall Semester		Cr.	Junior Year/Spring Semester		Cr.
___ 92.321	Discrete Structures I (see note p. 2)	3	___ 92.322	Discrete Structures II	3
___ 92. . .	Prob/Statistics	3	___ 92.362	Numerical Analysis	3
___ . . .	Science Elective	3	___ . . .	Free Elective	3
___ . . .	(Gen. Ed.) AH	3	___ . . .	(Gen. Ed.) AH	3
___ . . .	(Gen. Ed.) SS	<u>3</u>	___ . . .	(Gen. Ed.) SS	3
		15	___ 92.375	Senior Seminar I	<u>1</u>
					16

Senior Year/Fall Semester		Cr.	Senior Year/Spring Semester		Cr.
___ 92. . .	Analysis Elective	3	___ 92. . .	Math Elective	3
___ 92. . .	Math Elective	3	___ . . .	Science Elective	3
___ . . .	Free Elective	3	___ . . .	Science Elective	3
___ 92.475	Senior Seminar II	4	___ . . .	Free Elective	3
___ . . .	Free Elective	<u>3</u>	___ . . .	Free Elective	<u>3</u>
		16			15

Minimum total credits = 120

Consult the *Schedule of Classes* booklet regarding General Education (Gen. Ed.) requirements.

Course selections are subject to restrictions. See reverse side for additional information.

**Bachelor of Science with Major in Mathematics:
Concentration in Computer Science**

Notes:

No more than 60 Math credits can be counted towards the degree.
Preparation for Calculus (92.127) cannot be used as an elective.
Introduction to Data Analysis (92.363) cannot be used as a Math Elective.

Mathematics requirements: A minimum of 46 credits in the Mathematics Department, including:
92.131, 92.132, 92.231 (Calculus I-III);
92.221, 92.222 (Linear Algebra I,II);
92.236 (Differential Equations);
92.321 (Discrete Structures I);
one basic analysis course (92.305, 92.411, 92.501, 92.503);
one additional analysis course not used to fulfill another requirement (92.301, 92.305, 92.306, 92.322,
92.362, 92.411, 92.412, 92.413, 92.421, 92.420, 92.442, 92.450);
one course in probability and statistics (92.385, 92.386, 92.486);
92.475 (Senior Seminar).

Note: A student may not take both 92.305 and 92.503 to satisfy the two-course analysis requirement. One mathematics elective at 300, 400 or 500 level (if prerequisites are met).

Computing Requirement: 91.101 (Computing I) or 92.576 (Statistical Programming Using SAS) or another computer programming course as approved by the Mathematics Department Chair or Undergraduate Coordinator.

Writing Requirement: 49.229 (Essay Writing for Non-English Majors). If a student has completed other courses with substantial writing requirements, he/she can petition to have that work count as the mathematics writing requirement. Students with a joint major in Computer Science should take 42.220 (Oral and Written Communication for CS Majors) rather than 42.229.

Bachelor of Science Requirements: A minimum of 74 credits and 20 courses from the offerings of science and mathematics; four science lecture courses with co-requisite labs (2 from each of two Math/Science departments; or 4 from one Math/Science department; or 3 from Physics and 1 from the College of Engineering; or 2 from Physics and 2 from any one department in the College of Engineering).

General Education Electives must include at least 6 courses:
3 in Arts & Humanities (AH) and 3 in Social Sciences (SS); one course must satisfy the Diversity (D) requirement and one the Ethics (E) requirement. No more than two courses from a single department can be used to satisfy these Gen Ed requirements. Math/Science Gen ED requirements are fulfilled by the major's courses.

Computer Science Minor: Successful completion of two appropriate Computer Science courses (at least one 300 level or above) as a free elective will satisfy the requirements for a Minor in Computer Science.

Computer Science Major: Successful completion of appropriate Computer Science Courses as free electives will satisfy the requirements for a Major in Computer Science.

Advice to Students: If you plan any deviations from this sample program of study, use an Academic Petition signed by the Mathematics Department Chair to receive written permission. Keep a copy of any signed Academic Petition for your own files.