

**Bachelor in Science with Major in Mathematics
Concentration in Teaching
(For Students entering in Fall 2010)**

Freshman Year / Fall Semester	Cr.	Freshman Year / Spring Semester	Cr.
___ 92.131 Calculus I	4	___ 92.132 Calculus II	4
___ __. ___ Free Elective	3	___ 92.321 Discrete Structures I	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>
	14		14

Sophomore Year / Fall Semester	Cr.	Sophomore Year / Spring Semester	Cr.
___ 92.231 Calculus III	4	___ 92.236 Differential Equations	3
___ 92.221 Linear Algebra I	3	___ 92.222 Linear Algebra II	3
___ __. ___ Science	3	___ __. ___ Science	3
___ __. ___ Science Lab	1	___ __. ___ Science Lab	1
___ 42.229 Essay Writing for Non-English majors	<u>3</u>	___ __. ___ (Gen. Ed.) AH	3
	14	___ __. ___ (Gen. Ed.) SS	<u>3</u>
			16

Junior Year / Fall Semester	Cr.	Junior Year / Spring Semester	Cr.
___ 92. ___ Analysis	3	___ 92. ___ Analysis	3
___ 92. ___ Probability/Statistics	3	___ 92.300/400 Math Elective	3
___ __. ___ (Gen. Ed.) AH	3	___ __. ___ Concentration Elective	3
___ __. ___ (Gen. Ed.) SS	3	___ __. ___ (Gen. Ed.) AH	3
___ __. ___ Computing Elective	<u>3(4)</u>	___ __. ___ (Gen. Ed.) SS	3
	15(16)	___ 92.474 Senior Seminar I	<u>1</u>
			16

Senior Year / Fall Semester	Cr.	Senior Year / Spring Semester	Cr.
___ 92.420/520 Math. Problem Solving	3	___ 92.300/400 Math Elective	3
___ 92.300/400 Math Elective	3	___ __. ___ Science Elective	3
___ __. ___ Concentration Elective	3	___ __. ___ Free Elective	3
___ 92.475 Senior Seminar II	3	___ __. ___ Free Elective	3
___ __. ___ Free Elective	<u>3</u>	___ __. ___ Free Elective	<u>3</u>
	15		16

Minimum total credits for graduation = 120

Consult the Gen. Ed. web site <http://www.uml.edu/gened> regarding General Education (Gen. Ed.) requirements.

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

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Mathematics Requirements (92.xxx)

Calculus:	131,132 and 231
Linear Algebra:	221and 222
Differential Equations:	one of 234, 236
Discrete Structures:	321 or 322
Analysis I:	one of 305,411,501,503
Analysis II:	One of 301, 305, 306, 411, 412, 413, 420, 421, 442, 450
Probability & Statistics:	One of 385, 386, 486
Senior Seminar:	375 and 475
Math Electives:	Three mathematics courses at the 300 level or higher (except 363)
Concentration Requirements:	420 and two of 410, 413, 421, 427, 435

Note: None of the above courses can be used to satisfy two different requirements.
305 and 503 cannot both be used to satisfy the two-courses Analysis requirement.

The following courses cannot be used as Electives:

Quantitative Reasoning 111; Management Precalculus 121; Management Calculus 122
Preparation for Calculus 127; Explorations in Math 151; Introduction to Statistics 283;
Intro to Data Analysis 363.

No more than 60 Math credits can be counted toward the degree.

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

Writing Requirement: 42.229 (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 satisfy the mathematics writing requirement.

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.

The Teaching Concentration does not give students certification to teach mathematics. The requirements for certification to teach vary from state to state. The licensure to teach mathematics usually involves three parts: a bachelor's degree in mathematics or the equivalent, courses in education and state exams. Therefore, we strongly advise students considering a teaching career to see their departmental advisor and to contact the UML Graduate College of Education to obtain information on the credentialing requirements for many states, as well as information on the Massachusetts Tests for Educator Licensure (MTEL). The courses required in the Teacher Option prepare students to take and pass these exams.

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 Petitions for your own files.

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, including a two semester sequence in a department other than Mathematics—91.101(Computing I), 91.102 (Computing II), 92.231/232 (Calculus III & Math Lab I) and 92.236 (Engineering Diff. Eqns) qualify.