

UNIVERSITY OF MASSACHUSETTS DARTMOUTH
BIOLOGY DEPARTMENT

Degree Requirements

FRESHMAN YEAR

<u>First Semester</u>		<u>Credits</u>	<u>Second Semester</u>		<u>Credits</u>
BIO 121	Biology of Organisms I	3	BIO 122	Biology of Organisms II	3
BIO 131	Biology of Organisms Lab I	1	BIO 132	Biology of Organisms Lab II	1
CHM 151	Principles of Modern Chemistry	3	CHM 152	Principles of Modern Chem.	3
CHM 161	Introduction to Applied Chemistry	1	CHM 162	Introduction to Applied Chem	1
ENL 101	Critical Writing and Reading I	3	ENL 102	Critical Writing and Reading	3
II					
MTH 101*	Elements of College Mathematics I	<u>3</u>	MTH 102*	Elements of College Math II	<u>3</u>
		14			
14					

*Math courses to be selected in consultation with your advisor.

MTH 111, 112 (Calculus) is recommended for students whose math background is good, and may be required for later entrance to graduate programs with a molecular or ecological orientation. It is also a prerequisite for Physical Chemistry. MTH 111, 112 is required for PHY 113, 114 but can be taken concurrently with it.

SOPHOMORE YEAR

<u>First Semester</u>		<u>Credits</u>	<u>Second Semester</u>		<u>Credits</u>
BIO 234	Biology of Cells	3	BIO 210	Bio of Populations	3
BIO 244	Biology of Cells Lab	1	BIO 211	Bio of Populations Lab	1
CHM 251	Organic Chemistry I	3	CHM 252	Organic Chemistry II	3
CHM 263	Bio-organic Chemistry Laboratory	1	CHM 264	Bio-organic Chem Lab II	1
PHY 101	Introduction to Physics I	3	PHY 102	Introduction to Physics II	3
	Humanities/Social Science Electives	<u>6</u>		Humanities/Social Science Electives	6
-		17			

JUNIOR AND SENIOR YEARS

Course selection for the third and fourth years of the biology major must be determined in consultation with an advisor. During the third and fourth years all majors are required to elect at least 18 credits in upper-division biology courses (courses numbered 300 or higher). Upper-division courses in physics, chemistry, engineering, marine science, or mathematics may be substituted with the written approval of the advisor and the department chairperson prior to registration in the course. A maximum of 3 credits in biology proseminar may be included in the 18 credits. (Exceptions require waiver signed by chairperson). The requirements of the College of Arts and Sciences must also be met prior to graduation.

Students who have completed the first two years of the biology major may elect to concentrate in courses dealing with the ecology of the coastal zone, its estuaries and inshore waters and thus qualify for the Marine Biology Option as described below.

BIOLOGY ELECTIVES FOR THE GENERAL BIOLOGY OPTION: Eighteen (18) credits should be elected from upper-division Biology courses. Please see the General Catalogue for course names and descriptions.

BIOLOGY ELECTIVES FOR THE MARINE BIOLOGY OPTION: Eighteen (18) credits should be elected from upper-division Biology courses. A minimum of twelve (12) credits must come from the following list of courses.

BIO 316 Descriptive Oceanography	*BIO 471 Marine Microbiology
BIO 317 Biology of Invertebrates	*BIO 526 Marine Benthic Ecology
BIO 413 Biology of Fishes	*BIO 531 Advanced Ichthyology
BIO 414 Biology of Marine Mammals	*BIO 536 Estuarine Ecology
*BIO 454 Biology of Sharks	BIO 545 Biological Oceanography

*not offered every year

The minimum number of credits required for a Bachelor of Science degree in Biology is 120; 30 credits must be 300 level or over.

Requirements of the College of Arts and Sciences

- A. 6 credits: Freshman English ENL 101, 102 All first-year students are required to take Freshman English, a two semester course in the basic skills of writing communication and critical reading.
- B. 6 credits: Literature English literature, literature in a foreign language, or literature in translation. The Departments of English and Foreign Literature and Languages shall specify which courses satisfy this requirement.
- C. 18 credits: Humanities-Social Sciences. These credits are to be taken from the areas of Humanities and Social Sciences listed below, with a minimum of six credits from each area. The credits may not be taken in a student's major field.

Humanities:

1. History
2. Philosophy, including Logic
3. Art History & Music, excluding applied courses
4. Foreign Language (excluding Literature)

Social Sciences:

1. Economics
2. Political Science
3. Psychology
4. Sociology

Women's Studies courses receive either Social Science or Humanities distribution credit, depending on the discipline of the course with which they are cross-listed.

Each student must also satisfy the General Education requirements of the University as specified in the UMass Dartmouth Catalog of the year in which the student entered the University.

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