


Biotechnology: Marine Biotechnology

Associate in Science

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DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

The goal of the Marine Biotechnology program is to train students to work as technicians in sophisticated field and laboratory marine settings where multiple molecular disciplines converge to solve complex marine problems. The emphasis of this program, however, is to provide extensive and novel research experiences, career mentoring and academic bridging networks for the individual whose career goal is to work in the marine sciences as an independent, doctoral-level investigator. Marine Biotechnology applies technology and molecular biology to marine biological systems, living organisms (e.g. algae, fish or plankton) or derivatives thereof, to make or modify products or processes for specific use such as pharmaceuticals and food. Hence, the program's training entails the integration of molecular biology and marine sciences.

Upon successful completion, the Associate in Science Degree in Biotechnology with a concentration in Marine Biotechnology is awarded.

PROGRAM FOOTNOTES:

Humanities Electives: Art, Communications, Film, Foreign Language, Humanities, Literature, Music, Oral Communication, Philosophy, Photography, Sign Language, Theater Arts

Social Science Electives: Anthropology, Economics, Geography, Government, History, Law and Society, (LA 230), Psychology, Sociology

*Pre-Calculus Mathematics (MA 104) may be substituted.

A grade of C or higher is required for all Biotechnology (BT) courses.

This program qualifies as an Alternative Transfer Agreement (MassTransfer) with select public institutions in Massachusetts. For more information, visit www.mass.edu/masstransfer.

COURSE	COURSE TITLE	CREDITS
<i>First Year</i> <i>Semester 1</i>		
BI 110	Principles of Biology I	4
BT 101	Introduction to Biotechnology and Laboratory	2
CH 110	Principles of Chemistry I	4
EN 101	Freshman English I	3
MA 102*	College Algebra	3
		credits:
		16
<i>First Year</i> <i>Semester 2</i>		
BI 120	Principles of Biology II	4
BT 108	Marine Rotation I	3
CH 120	Principles of Chemistry II	4
CS 100	Computers and Technology	3
EN 102	Freshman English II	3
		credits:
		17
<i>First Year</i> <i>Summer 1</i>		
CT 100	Critical Thinking	3
	Social Science Elective	3
		credits:
		6
<i>Second Year</i> <i>Semester 1</i>		
BI 210	Molecular Biology	4
BT 206	Marine Rotation II	3
CH 201	Organic Chemistry I	4
	Humanities Elective	3
		credits:
		14
<i>Second Year</i> <i>Semester 2</i>		
BI 220	Immunology	4
CH 202	Organic Chemistry II	4
CH 210	Biochemistry I	4
	Humanities Elective	3
		or
	Social Science Elective	3
		credits:
		15
<i>Second Year</i> <i>Summer 2</i>		
BT 240	Biotechnology Internship	4
		Total Credits:
		72