

B. S. Marine Biology (MBY)*College: Arts & Science*

Marine Conservation Option

DEGREE REQUIREMENTS

Course requirements for all UNCW degrees include: (1) University Studies, (2) specific major requirements, and (3) sufficient elective hours for a combined total of a minimum of 124 hours.

(1) UNIVERSITY STUDIES

See University Studies sheet and/or information on the web at <http://www.uncw.edu/uc/basic/basic.html>

(2) MAJOR REQUIREMENTS – MBY (Minimum 75 hours)

The Marine Conservation option provides a B.S. Marine Biology degree plan that is designed for students primarily interested in the biological aspects of conservation science in marine environments (e.g., community ecology, population biology, biogeography, conservation genetics and assessment of threatened or endangered species and habitats).

_____	+*BIO 201	Principles of Biology: Cells (4)
_____	+*BIO 202	Principles of Biology: Biodiversity (4)
_____	BIO 335	Genetics (3), Lab (1) Prereqs: BIO 201, 202 (Meets Computer Competency Requirement with BIO 366)
_____	*BIO 362	Marine Biology (4) Prerequisite: BIO 366
_____	BIO 366	Ecology (3), Lab (1) Prereqs: BIO 201, 202 (Meets Computer Competency Requirement with BIO 335)
_____	BIO 325 and BIOL 325	Molecular Biology of the Cell (3), Lab (1) Prerequisites: BIO 201, 202 and CHM 211
_____	<u>or</u> BIO 340	Plant Physiology (4) Prerequisites: BIO 201, 202 and CHM 102
_____	<u>or</u> BIO 345 and BIOL 345	Animal Physiology (3), Lab (1) Prerequisites: BIO 201, 202 and CHM 102
_____	BIO 466	
_____	BIO 495	Seminar (1-3) Prerequisites: BIO 201, 202, 335, 366, and a physiology course, or consent of instructor
_____	<u>or</u> BIOL 495	Applied Learning Seminar (1) Prereqs: BIO 201, 202, 335, 366 & a physiology class, or consent of instructor (Meets Oral Communication Competency and Applied Learning Requirements)
_____	+*CHM 101	General Chemistry (4)
_____	*CHM 102	General Chemistry (4) Prerequisite: CHM 101
_____	*CHM 211	Organic Chemistry I (3), Lab (1) Prereq: CHM 102
_____	+GLY 150	Introduction to Oceanography (3)
_____	+MAT 151	Basic Calculus with Applications (3) Prerequisite: MAT 111 or 115 or equivalent preparation
_____	<u>or</u> +MAT 161	Calculus with Analytic Geometry (4) Prerequisite: MAT 112 or 115 or equivalent preparation
_____	+*PHY 101-102	Elementary College Physics (4, 4) For 101: Corequisite: MAT 111; For 102: Prerequisite: PHY 101
_____	+STT 215	Introduction to Statistics (3) Prerequisite: Satisfactory performance on UNCW math test or MAT 105
_____	BIO _____	Choose 8 hours from the following: BIO *312 <u>or</u> *313, *318 <u>or</u> *357.
_____	BIO _____	

Biology Elective Courses: (Minimum 10 hours of BIO courses above 299-level)

_____	BIO _____	
_____	BIO _____	Choose from the following: BIO 312, 313, 318, 357, 358, 368, 380, 430, 434, 452, 458, 463, 478, 486,
_____	BIO _____	487, 491, 498 or 499

NOTE: For teacher licensure, students must complete the requirements for a degree in biology/marine biology and the other requirements of the Teacher Education Program. In addition, the following courses are required for licensure: BIO 160 or BIO 335 and BIOL 335, BIO 190 or 425, BIO 315, BIO 325 and BIO 325L or BIO 340 or BIO 345 and BIOL 345, BIO 366 and BIOL 366; GLY 101 or 150, and PHY 101 or 105. Additionally, to earn Secondary Science Licensure, students must select at least 21 hours from 3 physical science areas. A minimum of 2 courses from each discipline, including PHY 260, is required.

A “C” (2.00) or better is required in all BIO courses above 299.

* *These courses require a lab*

+ *May also be used to satisfy University Studies requirements*

(3) ELECTIVES

_____ Elective hours to equal a minimum of 124 hours

Requirements to declare PRE-MBY: Completion of 24 semester hours.

Requirements to declare MBY: Completion of BIO 201 and 202 or equivalent courses, with a grade of “C” or better in both courses. Transfer students wishing to declare a major in marine biology must meet admission requirements, which are: a) completion of 24 semester credit hours from an accredited four-year college or university and a 2.00 grade point average in two biology courses with labs, preferably BIO 201 and 202, or equivalents; or b) completion of an associate degree from an accredited two-year college and a 2.00 grade point average in two biology courses with labs.

For further information, see the BIO website: <http://www.uncw.edu/bio> and <http://uncw.edu/catalogue/undergraduate%2011-12/Undergraduate%20Catalogue%20Master%20Word.pdf#page=122>.

BIOLOGY COURSES

- BIO 105 Concepts of Modern Biology** (4)
- BIO 140 Human Physiology** (3), **Lab** (1)
- BIO 150 Humans and Ecology** (3)
- BIO 160 Genetics in Human Affairs** (3)
- BIO 170 Biology of the Sea** (3)
- BIO 180 Plants and the Environment** (3)
- BIO 190 Microbes and Human Society** (3)
- BIO 201 Principles of Biology: Cells** (4)
- BIO 202 Principles of Biology: Biodiversity** (4)
- BIO 240 Human Anatomy and Physiology I** (4), **Lab** (1)
Prerequisites: BIO 201 and CHM 101
- BIO 241 Human Anatomy and Physiology II** (4), **Lab** (1)
Prerequisites: BIO 240 and BIOL 240
- BIO 246 Microbiology of Human Diseases** (3), **Lab** (1)
Prerequisites: BIO 201 and CHM 101
- BIO 291 Introductory Research** (1-3) Prereqs: Fr. or So. standing and consent of instructor and department chair
- BIO 311 Terrestrial Botany** (4) Prerequisites: BIO 201 and 202
- BIO 312 Marine Botany** (4) Prerequisite: BIO 362
- BIO 313 Marine Phycology** (4) Prerequisite: BIO 362
- BIO 314 Mycology** (3), **Lab** (1) Prerequisite: BIO 201 and 202
- BIO 315 Comparative Vertebrate Anatomy** (4) Prerequisites: BIO 201 and 202
- BIO 316 Vertebrate Embryology** (4) Prereqs: BIO 201 and 202
- BIO 318 Invertebrate Zoology** (4) Prerequisite: BIO 362
- BIO 320 Immunology** (3) Prerequisite: BIO 201 and 202
- BIO 325 Molecular Biology of the Cell** (3), **Lab** (1) Prerequisites: BIO 201, 202 and CHM 211
- BIO 335 Genetics** (3), **Lab** (1) Prerequisites: BIO 201 and 202
- BIO 340 Plant Physiology** (4) Prereqs: BIO 201, 202 and CHM 102
- BIO 345 Animal Physiology** (3), **Lab** (1) Prerequisites: BIO 201, 202 and CHM 102
- BIO 356 Vertebrate Natural History** (4) Prereqs: BIO 201 and 202
- BIO 357 Ichthyology** (3), **Lab** (1) Prerequisite: BIO 362
- BIO 358 Marine Mammals** (3) Prerequisites: BIO 201 and 202
- BIO 362 Marine Biology** (4) Pre/Corequisite: BIO 366
- BIO 366 Ecology** (3), **Lab** (1) Prerequisites: BIO 201 and 202
- BIO 368 Behavioral Ecology** (3) Prerequisites: BIO 201 and 202
- BIO 371 Human Fungal Diseases** (1) Prereqs: BIO 201 and 202
- BIO 380 Mariculture** (3) Prerequisite: BIO 362
- BIO 415 Vertebrate Histology** (4) Prerequisites: BIO 201 and 202
- BIO 425 Microbiology** (3), **Lab** (1) Prerequisites: BIO 201, 202 and junior or senior standing
- BIO 430 (ANT 430) Evolutionary Biology** (3) Prereq: BIO 335
- BIO 434 Coastal Marine Ecology** (3) Prerequisite: BIO 366
- BIO 435 Virology** (3) Prerequisites: BIO 201, 202 and 335
- BIO 440 Developmental Biology** (3), **Lab** (1) Prereq: BIO 335
- BIO 443 Neurobiology** (3) Prerequisites: BIO 240 and 241, or 345
- BIO 452 Mammalogy** (4) Prerequisites: BIO 201 and 202
- BIO 454 Herpetology** (4) Prerequisites: BIO 201 and 202
- BIO 455 Field Methods in Marine Mammalogy** (3) Prerequisites: BIO 201, 202 and consent of instructor
- BIO 456 Ornithology** (4) Prerequisites: BIO 201, 202, and 366
- BIO 458 Fisheries Biology** (3), **Lab** (1) Prerequisite: BIO 366 or consent of instructor
- BIO 459 Endocrinology** (3) Prereqs: BIO 201, 202 and CHM 212
- BIO 460 Limnology** (3), **Lab** (1) Prerequisites: BIO 201, 202, CHM 102 and junior status
- BIO 462 Deep Sea Biology** (3) Prerequisite: BIO 362
- BIO 463 Coral Reef Ecology** (3), **Lab** (1) Prerequisites: BIO 335; BIO 325 or 340 or 345; BIO 362 or 366 or consent of instructor
- BIO 465 Biochemistry** (3), **Lab** (1) Prerequisites: BIO 201, 202, CHM 211 and junior standing
- BIO 466 Conservation Biology** (3) Prerequisite: BIO 366, and junior or senior standing
- BIO 471 Phytoplankton** (4) Prerequisites: BIO 201, 202, or consent of instructor
- BIO 475 Plant Taxonomy** (4) Prerequisites: BIO 201 and 202
- BIO 478 Global Environmental Problems** (3) Prerequisites: BIO 201, 202 and CHM 101
- BIO 480 Field Studies in Biology** (1-6) Prerequisite: BIO 201, 202, and consent of instructor
- BIO 482 Wildlife Ecology** (3) Prerequisites: BIO 366 and junior or senior standing
- BIO 483 Biology of Crustaceans** (3), **Lab** (1) Prereq: BIO 362
- BIO 484 Methods in Biological Research** (1-3) Prerequisites: BIO 201 and 202
- BIO 485 Special Topics in Advanced Biology** (1-6)
Prerequisites: BIO 201 and 202
- BIO 486 Advanced Topics in Mariculture** (3) Prerequisites: BIO 201 and 202
- BIO 487 (GLY 458/558) Introduction to Coastal Management** (4) Prerequisite: Junior standing or consent of instructor
- BIO 488 (EVS 488/588) Forensic Environmental Science** (3)
Prerequisites: CHM 102 or equivalent and junior status
- BIO 491 Directed Individual Study** (1-3) Prerequisites: Overall GPA 2.00, junior or senior standing, and consent of instructor, dept chair, and dean
- BIO 493 Biology Laboratory Teaching Practicum** (1-4)
Prerequisites: Junior standing, consent of instructor, and a 3.00 cumulative GPA
- BIO 495 Seminar** (1-3) Prerequisites: BIO 201, 202, 335, 366 and a physiology course, or consent of instructor
- BIOL 495 Applied Learning Seminar** (1) Prerequisites: BIO 201, 202, 335, 366 and a physiology course, or consent of instructor
- BIO 498 Internship in Biological Sciences** (3-12)
Prerequisites: Junior or senior majors within the Department of Biological Sciences, minimum 2.00 overall GPA, and consent of instructor
- BIO 499 Honors Work in Biology** (2-3) Prerequisites: Second semester junior or senior standing

