MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BS BIOLOGY**
Option: **MARINE BIOLOGY**
Major Field Requirements: **47.0 credits**
Other Requirements: **31.0 - 35.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

REQUIRED BIOLOGY COURSES (24.0 credits)

Course No.		Short Title	C.H.	Grade	
BIOL	101	Foundations of BIOL	4.0	____	____
BIOL	211	Concepts of Zoology	4.0	____	____
BIOL	221	Concepts of Botany	4.0	____	____
BIOL	343	Ecology and Evolution	4.0	____	____
BIOL	362	Cell & Development	4.0	____	____
BIOL	364	Genetics & Mole BIOL	4.0	____	____

REQUIRED MARINE BIOL COURSES (8 credits)

BIOL	291	Marine Biology	4.0	____	____
BIOL	375	Biometry	3.0	____	____
BIOL	472	Marine Biology Seminar	1.0	____	____

DIRECTED ELECTIVES (9 credits)

In consultation with your advisor, select marine biology courses at a marine field station that add up to 9 credits. Independent research or a senior thesis on marine research can count for 3 of these credits.

BIOL	295	Marine Inverts	3.0	____	____
BIOL	296	Marine Ecology	3.0	____	____
BIOL	396	Marine Ichty	3.0	____	____
BIOL	397	Marine Botany	3.0	____	____
BIOL	471	Topics	3.0	____	____

(Topics: Adv Methods Coastal Ecology, Biol Mollusks, Coral Reef Ecology, Ecol of Marine Plankton, Marine Mammals, Marine Ornithology)

BIOL	495	BIOL Oceanography	3.0	____	____

BIOLOGY ELECTIVES (5.0-6.0 credits)

In consultation with your advisor, chooose additional courses at the 300-level or higher and approved for BIOL majors to bring total BIOL credits to 47.

BIOL	___	_____	___	____	____
BIOL	___	_____	___	____	____

REQUIRED RELATED (31.0 - 35.0 credits)

Chemistry & Earth Sciences (19.0-20.0 credits)

CHEM	111	Intro to Chem I	4.0	____
CHEM	112	Intro to Chem II	4.0	____
CHEM	235	Organic Chem	4.0	____

NOTE: CHEM 231* and CHEM 232 (total of 8.0 credits) may substitute for CHEM 235.

ESCI 261/MS 110	Intro. to Oceanography	4.0	____

Students must also take one of the following:

CHEM 326	Biochemistry 1	4.0	____
CHEM 375	Environ Chemistry	4.0	____
ESCI 363/MS 331	Chem Oceanography	3.0	____

*Must earn a C- or better in CHEM 231 to continue in CHEM 232.

Mathematics (4.0 - 5.0 credits)

MATH	151	Calc for Mgmt	4.0	____
-or-		**-or-**		
MATH	161	Calculus I	4.0	____
-or-		**- or -**		
MATH	163	Honors Calculus	5.0	____

Physics (8.0-10.0 credits)

PHYS	131	Physics I with Algebra	4.0	____
PHYS	132	Physics II with Algebra	4.0	____
-or-		**-or-**		
PHYS	231	Physics I with Calculus	5.0	____
PHYS	232	Physics II with Calculus	5.0	____

Note: Students are encouraged to consider completing a minor in oceanography.

General Electives (as necessary)

_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____
_____	_____	____	____