

# MARINE BIOLOGY

Degree: Bachelor of Science  
 Department: Biology  
 Building 58, Room 79  
 (850) 474-2748  
<http://uwf.edu/biology/biology@uwf.edu>

College: Arts and Sciences  
 Semester Hours Required for Degree: 120

Faculty: G. Stewart (Chairperson), K. Behan, W. Bennett, S. Bonomelli, J. Caffrey, H. Chung, D. Davis, T.C. Fox, W.H. Jeffrey, W. Patterson, C. Pomory, K. Pritchard, P. Ryals, B. Sharak-Genthner, V. Sharma, S. Smith, R.A. Snyder

The University of West Florida is one of only a few institutions in the United States which offers a Bachelor of Science in Marine Biology. The program is provided through the Department of Biology. The curriculum includes a series of five core courses fundamental to all areas of biology. Elective courses emphasize theoretical and practical aspects of aquatic/marine biology. Wetlands and estuarine marshes of the main campus, as well as the nearby Santa Rosa Island campus and the Gulf of Mexico, provide living specimens for study and serve as laboratories supporting elective courses. Graduates may seek careers in marine biology, fisheries management, aquaculture, pollution biology, and marine toxicology, and find employment in local, state, and federal departments of environmental regulation and education, as well as the private sector. Graduates are also well prepared to pursue advanced degrees. Prospective students need to be aware that some biology lab courses involve use of live animals; students may wish to seek details from course instructors before enrolling.

## PROGRAM REQUIREMENTS

In addition to general University requirements, students seeking the B.S. in Marine Biology must meet the requirements listed below.

A grade of "C" or better is required in each of the six biology core courses.

Consult with your academic advisor for courses which may satisfy both the General Studies requirements and common prerequisites.

### General Studies (36 sh)

Marine Biology majors should satisfy the mathematics (6 sh) and science (7 sh) components of General Studies with course work taken from the common prerequisites shown below.

Marine Biology majors should take ANT 2000 or PSY 2012 to satisfy the social science/behavioral perspectives component of General Studies. For additional information see the General Studies section of this *Catalog*.

### Common Prerequisites (31-32 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program.

Graduation requirements for the B.S. degree in Marine Biology include the successful completion of the following science/mathematics prerequisites: three foundation courses in biology (recommended: General Botany; General Zoology; Cell Biology); General Chemistry I & II; Organic Chemistry I & II; General Physics I & II; Calculus I and either Calculus II or Statistics. Statistics is preferred.

Since it will be difficult to incorporate all prerequisites into the 60 sh Lower Division Curriculum, students are advised to complete the following common prerequisites.

Courses in brackets indicate substitutes from Florida public community/junior colleges and universities.

+CHM 2045/L	General Chemistry I/Lab.....	4
	[CHM X045/L]	
+CHM 2046/L	General Chemistry II/Lab.....	4
	[CHM X046/L]	
+MAC 2311	Analytic Geometry & Calculus I.....	4
	[MAC X311, X233, X253, X281]	
+PCB 2131/L	Cell Biology/Lab.....	4
	[PCB X010/L, X011/L, X021/L, X131/L BSC X010/L, BSC X040/L, X012/L]	
+STA 2023	Elements of Statistics .....	3-4
	[MAC X312, X234, X254, X282 STA X122, X014, X023, X024, X321]	

Choose one:

+BOT 2010/L	General Botany/Lab.....	4
	[BOT X010/L, X013/L]	
+ZOO 1010/L	General Zoology/Lab .....	4
	[ZOO X010/L, BSC X041/L, X011/L]	

Choose one option:

Option 1

CHM 2210/L	Organic Chemistry I/Lab.....	4
	[CHM X210/L]	
CHM 2211/L	Organic Chemistry II/Lab .....	4
	[CHM X211/L]	

Option 2 (Preferred Option)

+PHY 2053/L	General Physics I/Lab.....	4
	[PHY X048/L, PHY X053/L]	
+PHY 2054/L	General Physics II/Lab.....	4
	[PHY X049/L, PHY X054/L]	

+ Indicates common prerequisites which can be used to satisfy General Studies requirements.

### Lower Division Electives (0-6 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

### Major (46 sh)

#### Marine Biology Core (24 sh)

BCH 3033/L	Biochemistry I/Lab .....	4
MCB 3020/L	Microbiology/Lab .....	4
PCB 3063/L	Genetics/Lab .....	4
PCB 4043/L	Ecology/Lab.....	4
PCB 4524/L	Molecular Biology/Lab .....	4
PCB 4723/L	Comparative Animal Physiology I/Lab.....	4

**Specialization (22 sh)**

ZOO	4254/L	Marine Invertebrate Zoology/Lab .....	4
ZOO	4304/L	Marine Vertebrate Zoology/Lab.....	4

*Choose one (the other course may be used as an elective):*

BOT	4404/L	Aquatic Botany/Lab.....	4
BOT	4406/L	Marine Algae/Lab.....	4

*Choose at least 10 sh from the following:*

BSC	4263	Biological Oceanography .....	3
BSC	4303	Biogeography .....	3
MCB	4733/L	Marine Microbiology/Lab.....	4
PCB	3253/L	Developmental Biology/Lab .....	4
PCB	4048	Estuarine Ecology .....	3
PCB	4364/L	Marine Ecological Physiology/Lab.....	4
ZOO	4454	Elasmobranch Biology .....	3
ZOO	4457	Fish Physiology.....	3
ZOO	4485	Marine Mammalogy .....	3
ZOO	4513	Animal Behavior.....	3
ZOO	4880C	Fisheries Biology .....	4
		Biology directed studies (2 hours maximum) .....	2

**Major-Related (14 sh)**

STA	4173	Biostatistics.....	3
-----	------	--------------------	---

*Choose one:*

BSC	4434	Introduction to Bioinformatics.....	3
CGS	3464	Programming Using Visual Basic for Non-Majors .....	3

*Students must take 8 sh of the following that were not completed as part of the Common Prerequisites in the lower division:*

BOT	2010/L	General Botany/Lab.....	4
CHM	2210/L	Organic Chemistry I/Lab .....	4
PHY	2053/L	General Physics I/Lab.....	4
ZOO	1010/L	General Zoology/Lab .....	4

**Upper Division Electives (0 sh)**