

MARINE BIOLOGY

Degree: Bachelor of Science
 Department: Biology
 Building 58, Room 79
 (850) 474-2748
 biology@uwf.edu
 College: Arts and Sciences
 Semester Hours Required for Degree: 120

Faculty: G. Stewart (Chairperson), B. Arnold, K. Behan, W. Bennett, S. Bonomelli, A.B. Chaet (Emeritus), H. Chung, C.N. D'Asaro (Emeritus), P. Darby, D. Davis, T.C. Fox, M.A. Hood (Emerita), W.H. Jeffrey, S. Krothapalli, J.E. Lepo, W. Patterson, C. Pomory, K.R. Rao, P. Ryals, B. Sharak-Genthner, V. Sharma, S. Smith, R.A. Snyder, M. Sutton, P.A. Winter. Faculty Associates: B. Brecke, J. Burkhalter, J.C. Cornette, J.A. Couch, L.C. Folmar, J. Lanza, R.L. Lavine, P. Linehan, C.L. McKinney, D. Miller, B. Ripps, M. Thetford, J.B. Unruh, J.T. Winstead

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.

Course descriptions are listed alphabetically by prefix in the back of this *Catalog*.

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, 2233, 2253, x281]	
+ PCB	2131/L	Cell Biology/Lab	4
		[PCB x010/L, x011/L, x021/L, x131/L BSC x010/L, BSC x040/L, 2012/L]	
+ STA	2023	Elements of Statistics	3-4
		[MAC x312, 2234, 2254, x282 STA 2122, 2014, 2024, 2321]	
<i>Choose one:</i>			
+ 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, 1011/L]	

Choose one option:

Option 1

CHM	2210/L	Organic Chemistry I/Lab	4
CHM	2211/L	Organic Chemistry II/Lab	4

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.

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 from the following

(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 semester hours from the following:

BSC 4263	Biological Oceanography	3
BSC 4303	Biogeography	3
MCB 4710	Biology of the Protists	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 4xxxC	Fisheries Biology	4
Biology directed studies (2 hours maximum)	2

Major-Related (14 sh)

STA 4173	Biostatistics	3
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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

Choose one:*

CHM 2211/L	Organic Chemistry II/Lab	4
PHY 2054/L	General Physics II/Lab	4

*General Physics II/Lab is preferred over Organic Chemistry II/Lab

Upper Division Electives (0 sh)