

# MARINE FISHERIES - BS

This program provides educational opportunities in the biological sciences, with emphasis of marine management. Ecology, taxonomy, zoogeography, culture, and general biology of commercial species are emphasized. Course offerings are structured to provide not only a strong basis of formal academic instruction but also considerable hands-on field and collection experience by taking advantage of the coastal location of the University. A strong preparation in the sciences is recommended. Marine Fisheries graduates are prepared to work as fisheries managers or research biologists for state and federal agencies, ecological consulting firms, and educational institutions. Qualified degree recipients may undertake postgraduate studies in resource management, mariculture, systematics, seafood technology, and fisheries economics.

## Program Requirements

### First Year

Fall		Semester Credit Hours
BIOL 111	Introductory Biology I <sup>1,2</sup>	4
CHEM 101	Fundamentals of Chemistry I	3
CHEM 111	Fundamentals of Chemistry Laboratory I	1
MARB 101	Succeeding in Science	1
MATH 142	Business Calculus <sup>3</sup>	3
or MATH 151	or Engineering Mathematics I	
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		3
Semester Credit Hours		15

### Spring

BIOL 112	Introductory Biology II <sup>1,2</sup>	4
CHEM 102	Fundamentals of Chemistry II	3
CHEM 112	Fundamentals of Chemistry Laboratory II	1
ENGL 104	Composition and Rhetoric	3
Select one of the following: <sup>3</sup>		3
MATH 141	Finite Mathematics	
MATH 150	Functions, Trigonometry and Linear Systems	
MATH 152	Engineering Mathematics II	
PHIL 240	Introduction to Logic	
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		3
Semester Credit Hours		17

### Second Year

Fall		Semester Credit Hours
CHEM 227	Organic Chemistry I	3
CHEM 237	Organic Chemistry Laboratory	1
MARB 315	Natural History of Vertebrates <sup>1</sup>	4
PHYS 201	College Physics	4
POLS 206	American National Government	3
Semester Credit Hours		15

### Spring

CHEM 228	Organic Chemistry II	3
CHEM 238	Organic Chemistry Laboratory	1
MARB 311	Ichthyology <sup>1</sup>	4
PHYS 202	College Physics	4
POLS 207	State and Local Government	3
Semester Credit Hours		15

### Third Year

Fall		Semester Credit Hours
MARB 301	Genetics <sup>1</sup>	4
MARB 303	Biostatistics <sup>1</sup>	3
MARB 320	Fisheries Techniques	4
MARB 435	Marine Invertebrate Zoology <sup>1,4</sup>	4
Semester Credit Hours		15

### Spring

ECON 202	Principles of Economics	3
MARB 360	Marine Conservation Biology <sup>1</sup>	4
MARS 252	Introductory Marine Science Laboratory	1
OCNG 251	Oceanography	3
Language, philosophy and culture ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a> )		3
Semester Credit Hours		14

### Fourth Year

Fall		Semester Credit Hours
MARB 423	Mariculture <sup>1</sup>	4
MARB 425	Marine Ecology <sup>1</sup>	4
MARB 445	Marine Fisheries Management <sup>1</sup>	3
Creative arts ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a> )		3
Semester Credit Hours		14

### Spring

ENGL 210	Technical and Business Writing	3
MARB 460	Fisheries Population Dynamics <sup>1</sup>	4
MARB 482	Seminar in Marine Biology <sup>1,4</sup>	1
Directed electives <sup>5</sup>		7
Semester Credit Hours		15
Total Semester Credit Hours		120

All electives must be chosen in consultation with, and approved by, the student's academic advisor. Unless courses are specifically listed, see University Core Curriculum at <http://core.tamu.edu/> for a listing of course options for Communication; Mathematics; Life and Physical Sciences; Language, Philosophy and Culture; Creative Arts; American History; Government and Political Sciences; and Social and Behavioral Sciences. The 6-hour University Core Curriculum requirement for International and Cultural Diversity may be met with courses used to satisfy other degree requirements.

<sup>1</sup> Indicates required courses in the Marine Fisheries major. These courses will be used to compute the major GPR.

<sup>2</sup> A grade of C or better is required before advancing to upper level courses.

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<sup>3</sup> There are two mathematics course requirements. The first is MATH 142 or MATH 151. The other math course shall be selected from MATH 140, MATH 141, MATH 150, MATH 152, or PHIL 240. Depending on the math sequence selected, the number of credit hours may vary by 1 or 2 credits. Credit will not be given for both MATH 151 and MATH 142.

<sup>4</sup> Designated writing intensive course.

<sup>5</sup> Directed Electives must be selected from MARB 300-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/marb>).

\* The total hours may be increased if the student is required to take remedial math, remedial English, foreign language or International and Cultural Diversity courses.