## MARINE FISHERIES - BS

This program provides educational opportunities in the biological sciences, with emphasis on 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, and fisheries economics.

## Program Requirements

| First Year |  |  |
| :--- | :--- | ---: |
| Fall |  | Semester <br> Credit <br> Hours |
| CHEM 119 | Fundamentals of Chemistry I | 4 |
| ENGL 104 | Composition and Rhetoric | 3 |
| MARB 101 | Succeeding in Science |  |
| MATH 147 <br> or MATH 151 | Calculus I for Biological Sciences <br> or Engineering Mathematics I | 3 |
|  | Semester Credit Hours | 4 |


| Spring |  | 4 |
| :--- | :--- | ---: |
| BIOL 111 | Introductory Biology I,2 | 4 |
| CHEM 120 | Fundamentals of Chemistry II | 4 |
| MARS 102 | Earth and Ocean Science 1 | 4 |
| Select one of the following: |  |  |
| MATH 148 | Calculus II for Biological Sciences |  |
| MATH 150 | Functions, Trigonometry and Linear |  |
|  | Systems |  |
| MATH 152 | Engineering Mathematics II | $\mathbf{1 6}$ |
|  | Semester Credit Hours |  |

## Second Year

Fall

| CHEM 227 | Organic Chemistry I | 3 |
| :--- | :--- | ---: |
| CHEM 237 | Organic Chemistry Laboratory | 1 |
| MARB 215 | Marine Zoology 1 | 4 |
| PHYS 201 | College Physics | 4 |
| POLS 206 | American National Government | 3 |
|  | Semester Credit Hours | $\mathbf{1 5}$ |


| Spring |  |  |
| :--- | :--- | ---: |
| CHEM 228 | Organic Chemistry II | 3 |
| CHEM 238 | Organic Chemistry Laboratory | 1 |
| MARB 311 | Ichthyology ${ }^{1}$ | 4 |
| PHYS 202 | College Physics | 4 |
| POLS 207 | State and Local Government | 3 |
|  | Semester Credit Hours | $\mathbf{1 5}$ |

Third Year
Fall
MARB $301 \quad$ Genetics $^{1} 4$

| MARB 303 | Biostatistics ${ }^{1}$ |  |
| :---: | :---: | :---: |
| MARB 315 | Natural History of Vertebrates ${ }^{1}$ |  |
| MARB 320 | Fisheries Techniques ${ }^{1}$ | 4 |
|  | Semester Credit Hours | 16 |
| Spring |  |  |
| ECON 202 | Principles of Economics |  |
| MARB 435 | Marine Invertebrate Zoology ${ }^{\text {1,3 }}$ | 4 |
| American history (http://catalog.tamu.edu/undergraduate/ general-information/university-core-curriculum/\#americanhistory) |  |  |
| Language, p undergradua curriculum/ | phy and culture (http://catalog.tamu.edu/ neral-information/university-core-uage-philosophy-culture) | 3 |
| Marine fisheries elective ${ }^{4}$ |  | 4 |
|  | Semester Credit Hours | 17 |
| Fourth Year |  |  |
| Fall |  |  |
| MARB 425 | Marine Ecology ${ }^{1}$ | 4 |
| MARB 460 | Fisheries Population Dynamics ${ }^{1}$ | 4 |
| Creative arts (http://catalog.tamu.edu/undergraduate/ general-information/university-core-curriculum/\#creativearts) |  |  |
| Marine fisheries elective ${ }^{4}$ |  | 4 |
|  | Semester Credit Hours | 15 |
| Spring |  |  |
| MARB 445 | Marine Fisheries Management ${ }^{1,3}$ | 3 |
| American history (http://catalog.tamu.edu/undergraduate/ general-information/university-core-curriculum/\#americanhistory) |  | 3 |
| Communication (http://catalog.tamu.edu/undergraduate/ general-information/university-core-curriculum/ \#communications) |  | 3 |
| Marine fisheries elective ${ }^{4}$ |  | 3 |
|  | Semester Credit Hours | 12 |
|  | Total Semester Credit Hours | 120 |
| ${ }^{1}$ Indicates required courses in the Marine Fisheries major. These courses will be used to compute the major GPA. <br> ${ }^{2} A$ grade of $C$ or better is required before advancing to upper level courses. <br> ${ }^{3}$ Designated writing intensive course. <br> ${ }^{4}$ Select 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, Cultural Discourse or International and Cultural Diversity courses. |  |  |
| 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 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 3hour University Core Curriculum requirement for International and Cultural Diversity may be met with courses used to satisfy other degree requirements. The 3-hour University Core Curriculum requirement for |  |  |

Cultural Discourse may be met with courses used to satisfy other degree requirements.

