Aquatic Biology, B.S. *major*
Fisheries Biology Emphasis

Special Note: Students seeking fisheries certification through the American Fisheries Society are encouraged to carefully select their Liberal Education courses to include 9 credits from courses related to composition, technical writing and/or verbal communications.

Required Credits: 76
Required GPA: 2.25

I REQUIRED BIOLOGY CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

II REQUIRED AQUATIC BIOLOGY CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 3361 Limnology (4 credits)
- BIOL 3362 Stream and River Ecology (4 credits)
- BIOL 3554 Readings in Aquatic Biology (1 credit)
- BIOL 3830 Aquatic Plants and Algae (4 credits)
- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 4534 Ichthyology (4 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
  or GEOL 3211 Environmental Hydrology (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)

III CAPSTONE PROJECT

CAPSTONE PROJECT The Aquatic Biology capstone project, completed in the senior year, provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects or internships with state and federal agencies. The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component. Specific capstone requirements vary by field of emphasis. Refer to requirements as listed in specific emphases.

COMPLETE THE FOLLOWING COURSES:

- BIOL 4898 Fisheries Research I (2 credits)
- BIOL 4899 Fisheries Research II (2 credits)

FISHERIES BIOLOGY EMPHASIS

REQUIRED CORE COURSES
COMPLETE THE FOLLOWING COURSE:

- BIOL 4545 Fisheries Management (4 credits)

ELECTIVE CORE COURSES
SELECT A MINIMUM OF 6 CREDITS FROM THE FOLLOWING:

- BIOL 2339 Ethics of Fish and Wildlife Management (3 credits)
- BIOL 3420 Human Dimensions of Wildlife and Fisheries Management (3 credits)
- ENVR 3040 Environmental Economics (3 credits)
  or ECON 3040 Environmental Economics (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)

V REQUIRED COURSES IN RELATED FIELDS

COMPLETE THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  or CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 2 OF THE FOLLOWING COURSES:

- MATH 2471 Calculus I (5 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 4403 Advanced Statistics and Research Design (4 credits)
- STAT 2610 Applied Statistics (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

SUGGESTED SEMESTER SCHEDULE FOR AQUATIC BIOLOGY MAJOR, B.S., FISHERIES BIOLOGY EMPHASIS

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  or CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education Requirements

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- PHYS 1101 General Physics I (4 credits)
  or PHYS 2101 Physics I (5 credits)
- Complete 2 of the Following
  - MATH 2471 Calculus I (5 credits)
  - PSY 3401 Basic Statistics for Research (4 credits)
  - PSY 4403 Advanced Statistics and Research Design (4 credits)
  - STAT 2610 Applied Statistics (4 credits)
- Liberal Education Requirements

Junior

- BIOL 3361 Limnology (4 credits)
- BIOL 3362 Stream and River Ecology (4 credits)
- BIOL 3554 Readings in Aquatic Biology (1 credit)
- BIOL 3830 Aquatic Plants and Algae (4 credits)
- BIOL 4200 Freshwater Invertebrates (4 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
  or GEOL 3211 Environmental Hydrology (3 credits)
- Elective courses in field of emphasis
- Complete Liberal Education Requirements

Senior

- BIOL 4534 Ichthyology (4 credits)
- BIOL 4545 Fisheries Management (4 credits)
- BIOL 4898 Fisheries Research I (2 credits)
- BIOL 4899 Fisheries Research II (2 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- Elective courses in field of emphasis