BIOLOGY (BIOL)

BIOL 1308  Science for Life I (Non-Majors Biology)
3 Semester Credit Hours (3 Lecture Hours)
A non-majors science course. Students will learn basic biological principles, identify the relevance of science in everyday life, and will understand the scientific method. This course does NOT substitute for BIOL 1406 - Biology I or BIOL 1407 - Biology II for science majors.
Co-requisite: SMTE 0091.
TCCNS: BIOL 1308

BIOL 1406  Biology I
4 Semester Credit Hours (3 Lecture Hours, 2 Lab Hours)
Presentation of basic biological concepts including scientific method, cytology, energetics, nucleic acids and genetics. This course is suitable for all majors.
Prerequisite: (MATH 1314, 1316, 2305, 2413, minimum score of 21 in 'ACT Math' or minimum score of 550 in 'SAT Math').
Co-requisite: SMTE 0091.
TCCNS: BIOL 1406

BIOL 1407  Biology II
4 Semester Credit Hours (4 Lecture Hours)
This course is an overview of the major concepts in biological diversity and plant and animal biology. Laboratory work will include individual/team activities as well as technology-related assignments.
Prerequisite: BIOL 1406.
Co-requisite: SMTE 0091.
TCCNS: BIOL 1407

BIOL 2300  Science Communication
3 Semester Credit Hours (3 Lecture Hours)
This course involves presentation and discussion of selected topics relating to the professional skills of practicing biological scientists, including basic software instruction, a review of library services pertinent to science, the application of scientific literature research skills, hypothesis generation and statistical tests, critical reviews of scientific articles, and an introduction to ethical issues in science.

BIOL 2371  Principles of Evolution
3 Semester Credit Hours (3 Lecture Hours)
An overview of the mechanisms by which heritable information changes, adaptations develop, and species diversify. Provides a foundation for molecular, cellular, and organismal studies in the biological sciences.
Prerequisite: BIOL 1407.

BIOL 2401  Anatomy and Physiology I
4 Semester Credit Hours (4 Lecture Hours)
Structure and function of the human body emphasizing biological chemistry, cell biology, tissues, and the integumentary, skeletal, muscular, and nervous systems. Not recommended for majors in the College of Science and Engineering. To count this course toward a major in the Department of Life Sciences, a student must demonstrate that it is required by professional schools in his or her career track and obtain approval for a substitution from his or her faculty mentor. Students may not receive credit for both this course and either BIOL 3425 - Functional Anatomy or BIOL 3430 - Physiology.
Co-requisite: SMTE 0091.
TCCNS: BIOL 2401

BIOL 2402  Anatomy and Physiology II
4 Semester Credit Hours (4 Lecture Hours)
Structure and function of the human body emphasizing blood, growth, development, genetics, and the endocrine, digestive, respiratory, cardiovascular, lymphatic, immune and urogenital systems. Not recommended for majors in the College of Science and Engineering. To count this course toward a major in the Department of Life Sciences, a student must demonstrate that it is required by professional schools in his or her career track and obtain approval for a substitution from his or her faculty mentor. Students may not receive credit for both this course and either BIOL 3425 - Functional Anatomy or BIOL 3430 - Physiology.
Prerequisite: BIOL 2401.
Co-requisite: SMTE 0091.
TCCNS: BIOL 2402

BIOL 2416  Genetics
4 Semester Credit Hours (3 Lecture Hours)
Principles of genetic transmissions and molecular basis of heredity and variation. Weekly recitation periods will involve team assignments, problem solving activities, and seminars.
Prerequisite: BIOL 1406 and 1407.
TCCNS: BIOL 2416

BIOL 2420  Principles of Microbiology
4 Semester Credit Hours (4 Lecture Hours)
Introduction to microorganisms with emphasis on those of importance in patient care. Principles of disinfection, sterilization, immunity. This class is intended for nursing majors; it cannot substitute for BIOL 2421 - Microbiology.
Co-requisite: SMTE 0092.
TCCNS: BIOL 2420

BIOL 2421  Microbiology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
An introduction to microorganisms including the bacteria, fungi, and viruses. Laboratory involves microbiological techniques and development of basic laboratory skills.
Prerequisite: BIOL 1406, 1407, CHEM 1411 and 1412.
Co-requisite: SMTE 0092.
TCCNS: BIOL 2421

BIOL 2427  Principles of Botany
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Introduction to the structure, function, diversity and application of plants. Laboratory focus on anatomical features, physiological adaptations, classification, and life cycles.
Prerequisite: BIOL 1407 and CHEM 1411.
Co-requisite: SMTE 0091.

BIOL 3300  Animal Nutrition
3 Semester Credit Hours (3 Lecture Hours)
Examines the dietary requirements of both companion animals and livestock. Includes the anatomy, physiology and biochemistry of the gastrointestinal system, nutrient procurement and use, feed additives, growth stimulants, metabolic diseases, and diet therapy. Cross listed with BIMS 3300.
Prerequisite: BIOL 1407 and CHEM 3411 and (CHEM 3412 or 3412*).
* May be taken concurrently.
BIOL 3325 Biostatistics
3 Semester Credit Hours (3 Lecture Hours)
The application of statistical analyses to biological data. Students will gain an understanding of how to apply statistical analyses to biological data through study of the principles of experimental design including how to frame informative research questions. At a fundamental level, these concepts are linked to the philosophy of science and our understanding of the way the world works.

BIOL 3345 Cell Physiology
3 Semester Credit Hours (3 Lecture Hours)
Emphasis on cellular functions that underlie physiological processes, transport across membranes, membrane potential and excitability, the cell nucleus, and organelles and their relationship to energy, metabolism, and transport mechanisms within the cell. Offered during Spring semester of odd-numbered years.
Prerequisite: BIOL 2416 and BIOL 3410.

BIOL 3403 Molecular Biology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Principles of molecular biology including advanced concepts of gene structure, expression and regulation, chromatin structure, recombination, and current molecular biology techniques. Laboratory emphasis is on basic skills for nucleic acid analyses, including extraction, PCR amplification, quantification, restriction, and electrophoresis. DNA sequencing-based approaches are covered including bioinformatics for sequence comparisons, polymorphisms, and molecular identification. Cross listed with BIMS 3403.
Prerequisite: BIOL 2416 and 2421.
Co-requisite: SMTE 0092.

BIOL 3410 Cell Biology
4 Semester Credit Hours (4 Lecture Hours)
Study of cellular architecture and function. Topics include membranes, transport, organelles, cytoskeleton, and signaling mechanisms. Interrelationships of structure, function, energy and metabolism are explored. Laboratory will emphasize basic techniques of cell biology.
Prerequisite: BIOL 2416 and CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 3413 Invertebrate Zoology
4 Semester Credit Hours (3 Lecture Hours, 1 Lab Hour)
Structure, life history, and evolution of the invertebrates with special emphasis on the phylogeny and ecological relationships of the major phyla. Laboratory will involve field trips and survey collections. Offered fall semester every year.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 3414 Vertebrate Zoology
4 Semester Credit Hours (4 Lecture Hours)
Structure, life history, and evolution of the vertebrates with special emphasis on the phylogeny and ecological relationships of the classes. Laboratory will involve field trips and survey collections. Offered only in Spring semester.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 3425 Functional Anatomy
4 Semester Credit Hours (4 Lecture Hours)
General trends in morphological development and adaptation as demonstrated by the anatomy and embryology of living and extinct chordates. Students may not receive credit for both this course and either BIOL 2401 - Anatomy and Physiology I or BIOL 2402 - Anatomy and Physiology II.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 3428 Principles of Ecology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Introduction to the interrelationships of organisms and their environment. Population structure, community classification and regulation, and energy flow in ecosystems will also be covered. Laboratory sections will focus on experimental design and field techniques in ecology.
Prerequisite: BIOL 1407 and (BIOL 2200, 2300, BIMS 2200 or UNIV 1101 and UNIV 1102) and CHEM 1411 and (MATH 2413 or 2413*).
Co-requisite: SMTE 0091.

BIOL 3430 Physiology
4 Semester Credit Hours (4 Lecture Hours)
The study of physiological processes that are the product of complex interactions between tissues, organs and organ systems, with emphasis on the circulatory, respiratory, endocrine, muscular, digestive, and urogenital systems. Particular focus on homeostasis, and the role of the environment and evolution on organ systems. Students may not receive credit for both this course and either BIOL 2401 - Anatomy and Physiology I, or BIOL 2402 - Anatomy and Physiology II.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 3455 Plant form and Function
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Anatomy of vegetative and reproductive organs of plants, unique cellular features, development and differentiation of cell and tissue types. Emphasis on physiological mechanisms of response and adaptation to the environment.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 3479 Plant Ecology
4 Semester Credit Hours (4 Lecture Hours)
Structure, physiology, life cycles, and economic impact of plants. Factors influencing diversity, succession and ecological distribution of plants.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 4100 Research Ethics and Professionalism
1 Semester Credit Hour (1 Lecture Hour)
A course designed to enhance the professionalism of undergraduate researchers. This course discusses the codified aspects of research ethics, including fabrication, falsification and plagiarism of data; assigning authorship, submitting manuscripts to more than one journal and management of lab teams. It also addresses careers in science, resume writing, producing the successful application and interviewing skills.

BIOL 4301 Embryology
3 Semester Credit Hours (3 Lecture Hours)
Studies the events that occur just prior to and during gestation. Includes gametogenesis, chromosomal and single gene aberrations, teratology, and the development of the body systems.
Prerequisite: BIOL 2416.
Biology (BIOL) 3

BIOL 4302 Coral Reef Conservation 3 Semester Credit Hours (3 Lecture Hours)
Survey of challenges and threats facing coral reef ecosystems in the 21st century and discussion of conservation and management strategies. Topics include biology and ecology of reef ecosystems, climate change impacts, coral bleaching, over-fishing and the effectiveness and design of marine protected areas.

BIOL 4304 Biology of Viruses 3 Semester Credit Hours (3 Lecture Hours)
Introduction to the study of viruses, including viral life cycles, replication schemes and Baltimore classification of representative bacteriophages, plant and animal viruses. Emphasis on analysis and review of primary literature on viruses.
Prerequisite: BIOL 2416, 2421 and CHEM 1411.

BIOL 4308 Biogeography 3 Semester Credit Hours (3 Lecture Hours)
This course offers an overview of the theories, methods, and current directions in modern biogeography, emphasizing marine and terrestrial plant and animal species and communities.

BIOL 4309 Biological Systematics and Phylogenetics 3 Semester Credit Hours (3 Lecture Hours)
Introduction to the theories of biological systematics and phylogenetics. Including species concepts, biological classification, nomenclature, and phylogenetic methods including ancestral state reconstruction and divergence time estimation. Offered in the spring semester of odd years.
Stacked with BIOL 5309
Prerequisite: BIOL 1407.

BIOL 4311 Biological Bases of Behavior 3 Semester Credit Hours (3 Lecture Hours)
This lecture-based course examines the processes by which neuronal circuits generate behaviors and the mechanisms by which experience modulates the activity of these circuits.
Prerequisite: BIMS 4323.

BIOL 4312 Mariculture Techniques 3 Semester Credit Hours (2 Lecture Hours, 2 Lab Hours)
The study and hands-on application of biological, mechanical, and other concepts required to develop the skills and techniques necessary for efficient operation and management of public and private aquaculture facilities. Offered in Fall of odd-numbered years.
Prerequisite: BIOL 4370.

BIOL 4315 Animal Behavior 3 Semester Credit Hours (3 Lecture Hours)
What mechanisms cause behavior? How does behavior develop? How does behavior affect survival and reproduction? How does behavior evolve? These questions will be explored in vertebrate and invertebrate species. Offered in the fall semester Stacked with BIOL 5315

BIOL 4319 Biology of Marine Mammals 3 Semester Credit Hours (3 Lecture Hours)
Introduction to marine mammals, with a focus on their interactions with their biotic and abiotic environment
Prerequisite: BIOL 1407.

BIOL 4323 Global Change Ecology 3 Semester Credit Hours (3 Lecture Hours)
An introduction to the effects of climatic and anthropogenic change on terrestrial and aquatic structure and function. Includes readings from the current literature and discussion of controversial articles.
Prerequisite: BIOL 3428.

BIOL 4328 Fisheries 3 Semester Credit Hours (3 Lecture Hours)
A study of theory and techniques in fisheries science, including practical fisheries sampling designs and techniques, behavior of fisheries populations and application to resource management with emphasis in tide-influenced waters. Includes readings in the current literature.
Prerequisite: BIOL 1407.

BIOL 4329 Fisheries Techniques 3 Semester Credit Hours (2 Lecture Hours)
This class is designed to provide practical experience in the theory and application of traditional and modern fisheries sampling and analytical techniques used in Fisheries Science and Management. This is a hands-on field- and laboratory-based course that will develop skills that are most commonly used by fisheries biologists and technicians. Offered in Fall of even-numbered years.
Prerequisite: BIOL 4328.

BIOL 4330 Conservation Biology 3 Semester Credit Hours (3 Lecture Hours)
Principles and theories relating to the conservation of biological diversity, including patterns and processes creating biological diversity, estimates of extinction rates, consequences of losses of biodiversity and causes of diversity loss.

BIOL 4334 Biology and Ecology of Coral Reefs 3 Semester Credit Hours (3 Lecture Hours)
This course will introduce the biology of corals, describe the abiotic and biotic interactions among coral reef ecosystem inhabitants, identify the threats of climate change, and discuss the conservation and management of reefs for the future. Offered every spring.
Prerequisite: BIOL 3428.

BIOL 4336 Marine Ecology 3 Semester Credit Hours (3 Lecture Hours)
Habitats and community structure in marine environments; biotic and abiotic factors governing the distribution of marine organisms.

BIOL 4340 Genomics, Proteomics and Bioinformatics 3 Semester Credit Hours (3 Lecture Hours)
An introduction to integrative biological study using genome-wide approaches and bioinformatics. The "omics" technologies (Genomics, Proteomics, Metabolomics, etc.) will be surveyed for current and potential contributions to understanding biological function at molecular, cellular, organismal and ecosystem levels.
Prerequisite: BIOL 2416 and 3410 or CHEM 4401.

BIOL 4343 Oceans and Human Health 3 Semester Credit Hours (3 Lecture Hours)
Healthy oceans are essential to the habitability of our planet – for humans and all other forms of life. Students will explore links between oceans, pollution, human well-being, ecosystem services, resource management, and the science and legislation governing the enforcement of water quality standards.

BIOL 4350 Research and Design 1-3 Semester Credit Hours (1-3 Lecture Hours)
Course will include experimental design, literature review of a research topic and laboratory work on the research topic.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>BIOL 4353</td>
<td>Down the River: Biology of Gulf Coast Fishes</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<tr>
<td>BIOL 4355</td>
<td>Public Aquarium and Animal Care Operations</td>
<td>3 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4360</td>
<td>Computation for 21st Century Biologists</td>
<td>3 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4370</td>
<td>Mariculture</td>
<td>3 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4371</td>
<td>Population Genetics</td>
<td>3 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4396</td>
<td>Directed Independent Study</td>
<td>1-3 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<tr>
<td>BIOL 4399</td>
<td>Directed Independent Research</td>
<td>3-6 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4405</td>
<td>Limnology</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4406</td>
<td>Immunology</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4408</td>
<td>Microbial Diversity and Ecology</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4410</td>
<td>Mammalogy</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<tr>
<td>BIOL 4413</td>
<td>Entomology</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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<td>BIOL 4417</td>
<td>Field Biology</td>
<td>4 semester</td>
<td>BIOL 1407, CHEM 1412ices to field sampling techniques and museum preparation of specimens. This will be a unique opportunity for students to gain an in-depth understanding of the biological complexity of Texas Gulf Coast river systems while gaining hands-on experience in field and museum ichthyological techniques that are employed by state, federal and academic researchers alike. Co-requisite: SMTE 0091.</td>
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Biology (BIOL)

BIOL 4430  Marine Plankton
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
In this class we will investigate the systematics, distribution, and ecology of major marine plankton groups and introduce major concepts in biological oceanography. Offered in Spring of odd-numbered years.

BIOL 4432  Ichthyology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Systematics, evolution, biology, and ecology of fishes. Laboratory identification of marine and freshwater fishes collected during field excursions.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 4433  Parasitology
4 Semester Credit Hours (4 Lecture Hours)
An introduction to parasitology with emphasis on internal parasites and appropriate references to human endoparasites and parasites of veterinary importance.
Prerequisite: BIOL 2421.
Co-requisite: SMTE 0092.

BIOL 4435  Biological Microtechniques
4 Semester Credit Hours (4 Lecture Hours)
Theory and techniques of processing specimens for histochemistry and microscopic examination. Laboratory includes preparation of tissues and small specimens for analysis and display.
Prerequisite: BIOL 1407 and CHEM 3411.
Co-requisite: SMTE 0092.

BIOL 4439  Case Work Methods in Forensic Anthropology
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
This course combines the study of human bones (osteology) and skeletal anatomy with established and validated forensic anthropological methods to solve theoretical and actual forensic cases involving human remains. Offered during the spring semester. Stacked with BIOL 5439. Cross-listed with BIMS 4439.
Prerequisite: BIOL 2401.

BIOL 4442  Herpetology
4 Semester Credit Hours (4 Lecture Hours)
Systematics, ecology, and behavior of amphibians and reptiles.
Prerequisite: BIOL 1407.
Co-requisite: SMTE 0091.

BIOL 4444  Estuarine Organisms
4 Semester Credit Hours (4 Lecture Hours)
Systematics, distribution, and ecology of estuarine macrofauna and macroflora. Weekend field trips and individual study required.
Prerequisite: BIOL 3413.
Co-requisite: SMTE 0091.

BIOL 4446  Tropical Ecosystems & Conservation
4 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
Survey of the ecology and conservation issues of the major ecosystems in the tropics and field techniques used to study tropical forest ecology.
Prerequisite: BIOL 3428.
Co-requisite: SMTE 0091.

BIOL 4452  Ecology and Evolution of Fishes
4 Semester Credit Hours (3 Lecture Hours, 4 Lab Hours)
This course covers aspects of fish ecology from individual, population, community, and ecosystem levels. We discuss the role of the environment on fish physiology and behavior, food-web dynamics, community assembly and diversity, ecosystem interactions, and anthropogenic impacts on fishes with a focus on conservation.
Prerequisite: BIOL 4432.
Co-requisite: SMTE 0091.

BIOL 4547  Marine Science Field Camp
5 Semester Credit Hours (3 Lecture Hours, 6 Lab Hours)
Students learn techniques required to properly conduct marine science field research. Practical, hands-on experience is gained in a variety of topics including biotic and abiotic sample collection and processing, quantitative analysis of field data, evaluation of environmental factors, survival and distribution of living organisms, and the structure of biotic communities.

BIOL 4590  Selected Topics
5 Semester Credit Hours (5 Lecture Hours)
Variable content. May be repeated for credit.

BIOL 4598  Biology Internship
2-6 Semester Credit Hours
Two to six semester credit hours may be earned by working in an internship position in a governmental agency, private industry, or other appropriate venue.

BIOL 4609  Field and Sampling Techniques
6 Semester Credit Hours (3 Lecture Hours, 3 Lab Hours)
The study of techniques required for proper field work in the biological sciences. The course includes ecological sampling methods, safety, logistics, equipment operation and maintenance and travel concerns.
Co-requisite: SMTE 0091.