

(2006). Professor of Biology and Department Chair. B.A., Hanover College; Ph.D., University of North Carolina.

(2009). Associate Professor of Biology. B.S., Bryan College; Ph.D., University of Virginia.

(1987). University Professor of Biology. B.S.A. and M.S., Arkansas State University; Ph.D., University of Memphis; Additional study, University of Tennessee at Memphis, Mid-America Baptist Theological Seminary, and University of Memphis.

(2009). Instructor of Biology. B.S. and M.S., Southern Illinois University; Ph.D. Candidate, Florida Institute of Technology.

(2004). Assistant Professor of Biology. B.S. and M.S., Murray State University; Ph.D., University of Tennessee.

(2002). Associate Professor of Biology and Acting Director of the Center for Scientific Studies. B.S., University of Tennessee; M.S., University of Kentucky; Ph.D., Kansas State University.

(1980). University Professor of Biology. B.S. and M.S., University of Mississippi; Ph.D., Louisiana State University.

(2008). Instructor of Biology. B.S. and M.A.Ed., Union University; additional study, Mississippi State University.

(1962). Associate Professor of Biology. B.S., Union University; M.S., University of Illinois; Additional study in Radiation Biology, University of Tennessee at Memphis.

(1998). Professor of Biology. B.S., Union University; M.S., University of Missouri–St. Louis; Ph.D., St. Louis University.

(1987). Professor of Biology. B.S., Union University; M.S. and Ph.D., Texas A & M University.

The curriculum in biology is designed to acquaint students with living organisms as whole, functioning entities that, in their diversity, share many common features. In addition to providing the scientific background required of all educated citizens, the courses provide a foundation upon which the student may build a graduate program, undertake training in health-related professions, or prepare for secondary-level science teaching. Students may participate in independent research as well as specific courses.

Because contemporary biology leans heavily on mathematics and physical sciences, students majoring in biology should include mathematics and chemistry in the freshman year. In the beginning course BIO 112, students will build a foundation for study of biological processes. Students can proceed to the first 200-level biology course during the second semester of the freshman year. In the sophomore year, students will continue the survey of the kingdoms of life by taking additional 200-level biology courses. Students should strengthen their understanding of mathematics and obtain a background in organic chemistry during that year. Biology courses at the 300-400 level should be taken during the junior and senior years, with seminar reserved for the senior year. Students will examine in detail how organisms function and interact with their environment and each other.

Biology majors are required to complete a minor and are encouraged to minor in chemistry. Conservation Biology majors are exempt from the minor requirement.

Upper-level students may enroll in courses, including marine biology, by cooperative agreement with the Gulf Coast Research Laboratory and the Au Sable Institute of Environ-

- A. Major requirements as shown above with General Biology Concentration (I.A.&B) to include 221, 222, and 318.
- B. Additional requirements: PHY 112; PHY 213 & 214 (or 231 & 232)
- C. Professional Education: EDU 150, 250, 326, 418, 433; PSY 213, 318; SE 225
- D. Completion of applicable portions of the Praxis II.
- E. For additional information, see the Assistant Dean for Teacher Education and Accreditation.

- A. BIO 112
- B. Two 200-level BIO courses
- C. Three 300-level BIO courses

Biology majors are required to take two terminal courses as a requirement for graduation: BIO 427, Research Presentation, and BIO 498, Seminar. The Department administers the Major Field Examination to senior biology majors in BIO 427.

is a national honorary science society for those who have completed 15 hours in natural science and mathematics and who have a minimum GPA of 3.0 in these courses. Membership advantages include recognition for academic achievements by the Sigma Zeta Honor Award, participation in nationally recognized research projects, and a means of cooperation in similar areas by students of different colleges.

serves students interested in exploring the world of biology beyond the classroom. BIOME is designed primarily for biology majors and minors but is open to anyone with an interest in biology. An ongoing project of BIOME is to provide mentors to all introductory biology students.

is given by the faculty of the Department of Biology to the student who presents the best research paper of the year, based on an original piece of work.

The Department selects a freshman major or minor based on outstanding scholastic achievement, financial need, Christian service, and school spirit.

() Hours Credit; F–Fall, W–Winter; S–Spring; Su–Summer

A course for non-science majors focused on the basic ideas to enable students to appreciate the living world and their relationship to it. Topics : the cell, genetic basis of life, biodiversity, survey of the 5 kingdoms of life, ecology, and the environment. Three hours of lecture and 2 hours of laboratory/week. No credit toward BIO majors/minors.

A study of the basic characteristics of organisms, dealing with structure, function, reproduction, and ecology. Three hours of lecture and 2 hours of laboratory/week.

Survey of structure and function of the human body with emphasis on the normal operations of organ systems and the role of homeostasis. Three hours lecture and 2 hours lab/week. Credit cannot be earned after earning either BIO 221 or 222. No credit toward BIO major/minor.

Prerequisites: BIO 100 or 112.

Biological concepts involved in fisheries and wildlife biology, their application in practice, and exploration of contemporary issues facing the organisms, habitats, and human consumers. Three hours of lecture and 3 hours of laboratory/week.

Pre- or Corequisite: BIO 221 and BIO 222.

Emphasis on observation, growth, ide3(o)14(c)21(o)2Surv13(s)1SurEpWhb

Prerequisite: BIO 214

Study of the natural history and ecology of North American vertebrates, including fish, amphibians, reptiles, birds and mammals. Conservation concerns of particular vertebrates will be examined. Three hours lecture and 3 hours laboratory/week.

Prerequisite: BIO 215

A study of the vascular plants of the eastern United States, focusing on the common herbaceous plants, vines, shrubs, and trees and their identification in the field. Field trips required, Two hours lecture and 6 hours lab.

Prerequisites: Junior standing, 20 hours toward BIO major, minimum BIO GPA of 2.0.

An introduction to the skills necessary to conduct scientific research, prepare a manuscript and make a presentation at a scientific meeting. Each student will develop and submit a research proposal for approval and attend all presentations in BIO 427.

Prerequisite: BIO 425, minimum BIO GPA of 2.0.

Individual research in accordance with the proposal developed and approved in 425. Students will attend all student presentations in BIO 427.

Prerequisite: BIO 426, minimum BIO GPA of 2.0.

Presentation of results of 426 as a publishable manuscript and oral presentation.

Prerequisite: 28 hours toward BIO major, a minimum BIO GPA of 2.0, senior standing.

Written and oral presentation of a library research paper and weekly discussions of current biological research. May be modified at the discretion of the department.

All courses and their applications must be defined and approved prior to registering.

All courses and their application must be defined and approved prior to travel.

Lower-level group studies that do not appear in the regular departmental offerings.

Upper-level group studies that do not appear in the regular departmental offerings.

Individual research under the guidance of a faculty member(s).