

DEPARTMENT OF BIOLOGY

COLLEGE OF ARTS AND SCIENCES

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). Assistant Professor of Biology. B.S. and M.S., Southern Illinois University Edwardsville; Ph.D., Florida Institute of Technology.

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

(2002). Associate Professor of Biology. B.S., University of Tennessee; M.S., University of Kentucky; Ph.D., Kansas State University.

(2010). Associate Professor of Biology. B.A., Vanderbilt University; M.S. and Ph.D., University of Memphis.

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

(2008). Assistant Professor of Biology. B.S. and M.A.Ed., Union University;

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B 42-48

- A. General Biology Concentration/Independent Research Option—42-44 hours
 1. BIO 112, 302, 425, 426, 437, and 498—8 hours
 2. BIO 211, 213, 214, 215, and 315—20 hours
 3. Four 300-level BIO courses—14 hours minimum
- B. General Biology Concentration/Collaborative Research Option—45-47 hours
 1. BIO 112, 302, 415, and 498—7 hours
 2. BIO 211, 213, 214, 215, 304 and 315—24 hours
 3. Four 300-level BIO courses—18 hours minimum
- C. Zoology Concentration/Independent Research Option—43-44 hours
 1. BIO 112, 302, 425, 426, 437, and 498—8 hours
 2. BIO 213, 214; 200 or 211—12 hours
 3. BIO 316, five 300-level BIO excluding 307, 309, 322 & 337—23 hours minimum
- D. Zoology Concentration/Collaborative Research Option—47-48 hours
 1. BIO 112, 302, 415, and 498—7 hours
 2. BIO 213, 214; 200 or 211; 304—16 hours
 3. BIO 316, five 300-level BIO excluding 307, 309, 322 & 337—27 hours minimum

C B 72, 76

- A. Independent Research Option—72-73 hours
 1. BIO 112, 211; 214 or 215—12 hours
 2. BIO 302, 315, 323, 325, 397, 498—16 hours
 3. Three of BIO 307, 309, 310, 316, 317, 320, 321, or 324—12 hours
 4. One 300-level BIO Elective—3 or 4 hours
 5. CHE 111, 112, 314, 315, 324, 326, 319, 329—26 hours
 6. BIO 425, 426 and 437—3 hours
 7. No minor is required
- B. Collaborative Research Option—75-76 hours
 1. BIO 112, 211; 214 or 215—12 hours
 2. BIO 302, 315, 323, 325, 397, 498—16 hours
 3. Three of BIO 307, 309, 310, 316, 317, 320, 321, or 324—12 hours
 4. One 300-level BIO Elective—3 or 4 hours
 5. CHE 111, 112, 314, 315, 324, 326, 319, 329—26 hours
 6. BIO 304 and 415—6 hours
 7. No minor is required

C B 70-71

- A. Prerequisites or Corequisites: CHE 111; PHY 112 or higher; 2 MAT courses 111 or higher
- B. BIO 112, 200, 213, 214, 215—20 hours
- C. BIO 302, 303, 304, 305, 315, 318, 335, 336, 337, 355—32 hours
- D. BIO 425, 426, 437, 498—4 hours
- E. No minor is required.

B (G 7-12)

- A. Major requirements as shown above with General Biology Concentration (I.A. or B) to include 316 (or 307 and 309) and 318.
- B. Additional requirements: PHY 111 & 112; CHE 111 & 112; MAT 114 or 208 (in B.S. core); CSC 105; and membership in BIOME.

- 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.

B 21, 24

- A. BIO 112
- B. Two 200-level BIO courses—7-8 hours
- C. Three 300-level BIO courses—10-12 hours, no more than 2 may be from BIO 307, 309, 322.

Major in Biology with Discipline-Specific Honors

The Biology Discipline-Specific Honors program offers advanced training in laboratory and library research through completion of contract courses with expanded requirements, a original research project, as well as colloquium attendance.

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Director of the Honors Community after the student has met with the Chair of the Department of Biology

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better

A one-time (from the department chair) 50% allowed to correct a deficient GPA. If the deficiency is not corrected, the student will be dismissed from the Honors program. A one-time, one-semester probation also will be allowed for students failing to meet other expectations, as determined by their thesis adviser and/or Biology chair. Appeals may be instituted by students in the manner stipulated in the Student Handbook. Application forms may be obtained from the department chair.

Accepted students will Requirements

323. C B (4)

Prerequisites: 12 BIO hours.

A study of biological systems at the cellular and subcellular levels emphasizing functional aspects such as protein procession and sorting, membrane systems, energy generation in mitochondria and chloroplasts, and cell signaling. Three hours lecture and three hours laboratory/week.

324. (4) E

Prerequisite: 12 BIO hours

Parasitology is a course that will apply information learned in a variety of Biology courses to the study of parasites and parasitic diseases. Specifically, this course will address the ecology, epidemiology and biochemistry of parasites and diseases caused by parasites. The laboratory will focus on the identification of important parasite groups and methods for host examination and diagnosis. Three hours of lecture and 3 hours laboratory/week.

325. B (4) F

Prerequisites: BIO 211 and 8 additional BIO hours applicable to the major; CHE 314 and 324.

Basic principles of molecular biology focusing on recombinant DNA methods as applied to a variety of biological questions. Students will learn basic research laboratory skills through a wide range of methods from gel electrophoresis to subcloning. Three hours lecture and three hours laboratory/week.

335. C B (3) F E

Prerequisites: BIO 200, MAT 211, and 4 hours applicable to the major.

A study of the principles of conservation and wildlife management. Examines the ecology of species of interest and the habitat manipulation techniques used in the conservation of such organisms.

336. E C (4)

F E

Prerequisite: BIO 214 and 8 additional BIO hours

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.

337. (4)

Prerequisite: BIO 215 and 8 additional BIO hours

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 laboratory/week.

355. E E (3) F

Prerequisite: BIO 112, 200, and 4 additional hours applicable toward a conservation major

This course will examine the relationship between humans and their natural environment; addressing the problems confronting the necessity to balance conservation with human need and the use of natural resources. Topics to be explored include an ethical consideration for the urban environment and of wilderness preservation, the interplay of local and global environmental ethics, and the ethics of sustainability. An overarching view of the scope of historical and modern bioethical issues will also enter into our discussions.

415. C E (2)

Prerequisite: Junior Standing, 20 hours toward BIO major, minimum BIO GPA 2.0.

An introduction to the skills necessary to conduct scientific research in a group setting. Each group will develop a research question and submit research addressing

