
(2010). Dean for the College of Arts and Sciences and Associate Professor of Political Science. B.A., Florida State University; M.P.A., University of Georgia; J.D., University of Houston Law Center; Ph.D., Baylor University.

(2018). Administrative Assistant to the Dean for the College of Arts and Sciences.

(2006). Associate Dean of Arts and Sciences and University Professor of Biology. B.A., Hanover College; Ph.D., University of North Carolina; Additional study, Michigan State University; Penn State College of Medicine.

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

(2018). Chair, Professor of Music and Director of Choral Activities. B.M., Eastman School of Music, University of Rochester; M.M., Florida State University; D.M.A., Boston University.

A list of faculty who teach in graduate programs is available online at www.uu.edu/academics/faculty/

The College of Arts and Sciences provides an excellent liberal arts education that is informed by Christian faith and prepares students for life, careers, and service.

- The College of Arts and Sciences is committed to excellence in every aspect of the academy, including teaching, scholarship, and service.
- The College of Arts and Sciences seeks to foster spiritual growth and the development of a vital Christian worldview in both faculty and students.
- The College of Arts and Sciences consists of faculty and staff committed to modeling the concept of servant leadership.
- The College of Arts and Sciences seeks to nurture lifelong learning skills, empowering students and faculty to impact their local and global communities.

Financial aid information for graduate students is available on our website at www.uu.edu/financialaid. Generally, graduate students for Federal Direct student loans or private alternative student loans (www.uu.edu/financialaid/loans/alternative-lender-list.cfm), depending on the program of study and the eligibility of the

Prerequisite: BIO 521.

A continuation of BIO 521 studying body systems: endocrine, cardiovascular, respiratory, urinary, digestive, and lymphatic. Three hours lecture and optional 3 hours laboratory/week.

A study of biological systems at the cellular and subcellular levels emphasizing functional aspects such as protein processing and sorting, membrane systems, energy generation in mitochondria and chloroplasts, and cell signaling. Three hours lecture and optional 3 hours laboratory/week.

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 optional 3 hours laboratory/week.

This course introduces students to the pathophysiology underlying human disease progressions with an emphasis on cell injury, adaptation and death, genetic components of disease processes, systemic disease, including cardiovascular, renal, respiratory, endocrine, neurologic and gastrointestinal disorders, and neoplasia. Along with lectures, students will engage with primary research literature to enhance their understanding of various disease processes and research methodology, including critical analysis of basic science and epidemiological data.

This field course is designed to showcase the basic flora and fauna of the tropics and review ecological principles within these unique tropical environments. Lectures and labs focus

Lectures and labs on the nature of life in the ocean and in coastal environments. The first part of the semester is spent at Union University facilities and the second part is spent exploring the coastal environments of South Georgia and the Atlantic Coast of Florida. There is an extra fee associated with this class.

Focuses on the identification and ecology of birds in the eastern United States. Multiple field trips are required, culminating with a 10-day trip to South Georgia and Florida. There is an extra fee associated with this class.

Study of physiological factors influencing the chemical and structural composition of plant absorption and utilization of water and minerals; photosynthesis, translocation, respiration, nitrogen metabolism; and growth and development. Physiology is the study of how plants function, including resource acquisition, energy creation and use, resource allocation, life cycle, and stress response. Three hours lecture and optional 3 hours laboratory/ week.

This course will focus on the identification and management of trees, focusing on forest ecology and silvicultural practices. The laboratory will include field trips that will focus on tree identification. Three hours lecture and 3 hours laboratory/ week.

Students enrolling in this course will work with a faculty mentor on a year-long project, culminating in a research paper, which will be defended in a public forum before a committee of three faculty members (including the mentor). The mentor will work with the student to select courses to support the general overview of the project.

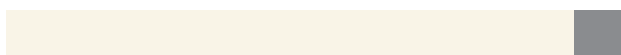
Continuation of BIO 570.

Group studies which do not appear in the department course offerings. Course content will be determined by need.

Variable content course designed to address cutting-edge topics in cell and molecular biology.

Students will develop proficiency in searching biological literature, writing a well-constructed summary of primary literature, making an oral presentation of primary literature and data analysis. Students will improve their critical thinking skills and their ability to evaluate and explain data. Students will also engage in meaningful discussions with other students and Biology Faculty on a number of relevant biological topics. This course may be repeated once.





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This course will focus on the identification and management

A focus on music technology tools, platforms and services used by the modern music business entrepreneur. Study topics include office technology, copyright/licensing services, royalty collection services, distribution platforms, multi-user project platforms, and the impact, both positive and negative, that technology has had on the music business. Additional focus will be placed on using online tools, social media platforms, promotion, management, and various types of contracts. Students will create a one-sheet, electronic press kit, and personal business plan for careers moving forward.

This course covers topics related to live performance production and MIDI programming technologies. Students learn to use the most current versions of Logic for programming of high-level mockups for songs in various styles. Ableton Live will be studied for use in live performance and programming, including work with stems and real-time triggering. Students will also create and manipulate a template of sample based virtual instruments using Musical Instrument Digital Interface (MIDI). Additional topics will include the use of midi technology for sound reinforcement and lighting systems.

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