

# BIOCHEMISTRY AND MOLECULAR BIOLOGY

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Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.

More Info (<https://one.ufl.edu/soc/>)

*Unless otherwise indicated in the course description, all courses at the University of Florida are taught in English, with the exception of specific foreign language courses.*

The department offers a full program of courses for the undergraduate student preparing for advanced degrees in the biological, agricultural and life sciences and for professional school.

The major course offering, BCH 4024, is designed to provide students with a general background in biochemistry and molecular biology for professional school or advanced studies in specialized areas.

The department offers an independent interdisciplinary major in biochemistry and molecular biology, in cooperation with the College of Liberal Arts and Sciences, to those undergraduates with strong interests in cell processes, molecular biology, metabolism or physical or structural biochemistry (See Biochemistry and Molecular Biology entry under Majors).

Undergraduate students in other majors who are interested in a research career in biochemistry and molecular biology should take BCH 4024 as early in their undergraduate program as possible. Students interested in supplementing these didactic course offerings with laboratory research experience can register for BMS 4905 after obtaining department approval. Further information on such research opportunities, advanced study and early admission can be obtained from the undergraduate studies coordinator.

Students with interests in medicine or other health sciences may also choose to enroll in the interdisciplinary major program and should contact the assistant dean for preprofessional education in the College of Medicine at the end of the sophomore year or at the beginning of the junior year.

## Courses

### **BCH 2911 Science for Life 1 Credit**

**Grading Scheme:** Letter Grade

This weekly research course introduces students to the many research opportunities available in the bench, field, clinical, and computer labs across all STEM and Health disciplines on campus. Each week, three faculty members discuss their research focus, how and why they study the systems they do, and the broader impacts of their work. These brief presentations are designed to offer students a deeper awareness of UF's interdisciplinary research and how undergraduates can be involved.

**Prerequisite:** College-level science or engineering course.

### **BCH 4024 Introduction to Biochemistry and Molecular Biology 4 Credits**

**Grading Scheme:** Letter Grade

Introduces physical biochemistry, intermediary metabolism and molecular biology. Topics include a survey of structure, chemistry and function of proteins and nucleic acids, enzyme kinetics and mechanisms of catalysis; a survey of the pathways of carbohydrate, lipid and nitrogen metabolism and their metabolic control; regulation of gene expression at the level of DNA, RNA and protein synthesis.

**Prerequisite:** CHM 2211 or CHM 3217, or instructor permission.

### **BCH 4905 Biochemistry Senior Research 1-7 Credits**

**Grading Scheme:** Letter Grade

Laboratory investigations of biochemical problems of current interest. Senior thesis required.

**Prerequisite:** CHM 2210, CHM 2211, and CHM 3217 or the equivalent, BCH 4024 and interdisciplinary major status.

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