Advanced Molecular Biology Option

The Advanced Molecular Biology option is designed for students interested in pursuing graduate work in molecular life sciences or entering the workforce in the biotechnology and pharmaceutical industries. It provides advanced training in genomics, epigenetics and other areas of current research in molecular biology, in addition to the core courses in the major. Students are strongly encouraged to participate in undergraduate research, and up to six research credits can be applied to the Upper-division Science Elective requirements. Faculty advisors work with students to help them identify electives, research opportunities, and professional internships that align with their interests.

Students pursuing the Advanced Molecular Biology Option take **96 credits** from the Biochemistry and Molecular Biology Core **PLUS**:

Core (2 credits)

BB 496. Biochemistry Laboratory Molecular Modeling (1)
BB 497. Basic Nucleic Acid and Protein Sequence Analysis (1)

Electives

Select 19 or more credits from the following:

BB 401. Undergraduate Research (1–6 credits allowed)
BB 460. Advanced Cell Biology (3)
BB 484. Chromatin and Epigenetics (3)
BB 485. Applied Bioinformatics (3)
BI 311. Genetics (4)
BI 445. Evolution (3)
BOT 460. Functional Genomics (3)
BOT 475. Comparative Genomics (4)
BOT 476. Introduction to Computing in the Life Sciences (3)
MB 302. General Microbiology (3)
MB 303. General Microbiology Laboratory (2)
MB 310. Bacterial Molecular Genetics (3)
or MB 456. Microbial Genetics and Biotechnology (3)
MB 416. Immunology (3)
MB 420. Microbial Genomes, Biogeochemistry, and Diversity (3)
ST 352. Introduction to Statistical Methods (4)
Z 425. Embryology and Development (5)
Z 438. Behavioral Neurobiology (3)

Total=21 credits
Option Code: 972