ADVANCED MOLECULAR BIOLOGY OPTION

This option is offered within the following major(s):


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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB 496</td>
<td>BIOCHEMISTRY LABORATORY MOLECULAR MODELING</td>
<td>1</td>
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<tr>
<td>BB 497</td>
<td>BASIC NUCLEIC ACID AND PROTEIN SEQUENCE ANALYSIS</td>
<td>1</td>
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**Electives**

Select 19 or more credits of the following:

- BB 401 UNDERGRADUATE RESEARCH
- BB 460 ADVANCED CELL BIOLOGY
- BB 484 CHROMATIN AND EPGENETICS
- BB 485 APPLIED BIOINFORMATICS
- BI 311 GENETICS
- BI 445 EVOLUTION
- BOT 460 FUNCTIONAL GENOMICS
- BOT 475 COMPARATIVE GENOMICS
- BOT 476 INTRODUCTION TO COMPUTING IN THE LIFE SCIENCES
- MB 302 GENERAL MICROBIOLOGY
- MB 303 GENERAL MICROBIOLOGY LABORATORY
- MB 310 BACTERIAL MOLECULAR GENETICS
  or MB 456 MICROBIAL GENETICS AND BIOTECHNOLOGY
- MB 416 IMMUNOLOGY
- MB 420 MICROBIAL GENOMES, BIOGEOCHEMISTRY, AND DIVERSITY
- ST 352 INTRODUCTION TO STATISTICAL METHODS
- Z 425 EMBRYOLOGY AND DEVELOPMENT
- Z 438 BEHAVIORAL NEUROBIOLOGY

**Total Hours** 21

**Option Code:** 972