Biomedical Science, Ph.D.

The Biomedical Science Program (BSP) optimizes students' mobility and their ability to explore several graduate programs during their first academic year before affiliating with a specific BSP subprogram—cancer biology, cell and developmental biology, experimental pathology, free radical and radiation biology, molecular medicine, molecular physiology and biophysics, or pharmacology.

Students thrive in a collaborative environment in which they explore subprograms by performing three research rotations in the laboratories of any of the biomedical science faculty, regardless of their departmental or program affiliation. Biomedical science students are advised regarding course selections, research rotations, and registration by a designated faculty academic advisor. Students can tailor their choice of electives based on their interests.

Following completion of the first year, it is expected that students will be able to select a research laboratory and subprogram affiliation. The specific subprogram students choose for thesis training determines their curriculum for subsequent years.

Core Curriculum

First Year, Fall

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BMED:5207</td>
<td>Principles of Molecular and Cellular Biology</td>
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<tr>
<td>BMED:5208</td>
<td>Topics in Principles of Molecular and Cellular Biology</td>
<td>1</td>
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<tr>
<td>BMED:7777</td>
<td>Biomedical Science Seminar</td>
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<td>BMED:7888</td>
<td>Biomedical Science Research</td>
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<td>PCOL:5204</td>
<td>Basic Biostatistics and Experimental Design</td>
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Elective course(s)

First Year, Spring

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<td>MMED:6260</td>
<td>Methods for Molecular and Translational Medicine</td>
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<td>PATH:5270/ IGPI:5270/ MMED:5270</td>
<td>Pathogenesis of Major Human Diseases</td>
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Elective course(s)

Admission

Applicants must have a baccalaureate degree from a regionally accredited U.S. college or university, or an equivalent degree from another country as determined by the Office of Admissions. They also must have an undergraduate g.p.a. of at least 3.00. Applicants must meet the admission requirements of the Graduate College.

Appropriate preparation includes a one year, college-level course in biology, chemistry (inorganic and organic), and mathematics through calculus.