Fast Track Biomedical Sciences, BS to Biology, MS

Program Description

The university allows the opportunity for high-achieving students to waive a select number of undergraduate credits in order to obtain a graduate degree at an accelerated pace. Students interested in the Fast Track in Biomedical Sciences must meet the following application criteria:

- Currently seeking a BS in Biomedical Sciences at A&M-Corpus Christi.
- Minimum of a 2.75 GPA in the BIOL 1406-07 and CHEM 1411-12 courses.
- Students must have a 3.0 cumulative GPA (and a science and mathematics GPA of 3.0) by the fifth (5th) semester of university enrollment, with successful completion of coursework in the following: Genetics, Microbiology, Organic Chemistry I, Organic Chemistry II and two other upper-level courses (Physiology or Pathophysiology or Cell Biology).
- Transfer students from Del Mar College, Alamo Colleges, Austin Community College or other two-year institutions may enter as juniors in the 5th semester if they have a 3.0 or greater OR they meet one of the requirements below:
  - a GRE combined score of 300 OR
  - Grades of "B" or higher in the following courses or equivalents will allow entry into the program with two semesters to complete Organic Chemistry I and II, if they have both all science and mathematics GPA of 3.0 or higher.

If accepted to the Fast Track program, the student will be given permission to enroll in prescribed graduate courses during their last semester of undergraduate studies. Six hours of upper level undergraduate courses will “double-count” and will replace up to six graduate hours. Students will be allowed to continue enrollment in the graduate program upon successful completion of the undergraduate degree.

The BS and MS degrees will be awarded sequentially (i.e., upon completion of each degree) and not simultaneously.

In their undergraduate portion, students are strongly advised to take DIS (BIOL 4396/BIMS 4396) or the Research and Design course (BIOL 4350—3 SCH) or the Directed Independent Research (BIOL 4399 3-6 SCH, max 6) course to formulate a topic.

Admissions Requirements

Applicants must provide the following at the time of application:

- A completed application form. Application fees are waived for Fast Track applicants.
- Official transcripts of all college and university coursework.
- An essay (not more than 1000 words) describing educational and career goals and interests as they relate to program faculty.
- A faculty member must be willing to serve as the chair of the applicant’s Graduate Advisory Committee and the applicant must include a summary of discussions with faculty members in their essay. Students must contact potential advisors prior to and during the application process to discuss research opportunities in faculty member labs.
- Applicants who do not have a faculty member willing to serve as their committee chair at the time of the transition from BS to MS cannot remain in the program.
- Official GRE scores by the time the student is reclassified to MS.

Revised Core BIMS Fast Track Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2416</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2421</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 2300</td>
<td>Science Communication</td>
<td>2-3</td>
</tr>
<tr>
<td>or BIMS 2200</td>
<td>Professional Skills</td>
<td></td>
</tr>
<tr>
<td>CHEM 3411</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3412</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1401</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1402</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>BIMS 3401</td>
<td>Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 3430</td>
<td>Physiology</td>
<td></td>
</tr>
<tr>
<td>BIMS 3410</td>
<td>Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 4401</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>BIMS 3403</td>
<td>Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIMS 4406</td>
<td>Immunology</td>
<td>3-4</td>
</tr>
<tr>
<td>or BIOL 3345</td>
<td>Cell Physiology</td>
<td></td>
</tr>
<tr>
<td>MATH 3342</td>
<td>Applied Probability and Statistics</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 1442</td>
<td>Statistics for Life</td>
<td></td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
<td>3-4</td>
</tr>
<tr>
<td>or BIOL 3325</td>
<td>Biostatistics</td>
<td></td>
</tr>
</tbody>
</table>

Any two BIMS courses 1

Total Hours 57-63

1 (also see Table of Fast Track Transition courses: BIOL 3425 (Funct. Anat) OR BIMS 4333 (Med Entomol) or BIMS 3428 (Medicolegal Death) or BIMS 4334 (Hum Genet) OR BIMS 4335 (Endocrinol) OR any BIMS courses.

Fast Track Transition courses

A maximum of 6 SCH of coursework may be taken as graduate work. Courses should be taken in last semester of senior year.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIMS 4410</td>
<td>Histology</td>
<td>4</td>
</tr>
<tr>
<td>or BIMS 5410</td>
<td>Cells and Tissues</td>
<td></td>
</tr>
<tr>
<td>BIOL 4304</td>
<td>Biology of Viruses</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 5304</td>
<td>Virology</td>
<td></td>
</tr>
<tr>
<td>BIMS 4323</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5323</td>
<td>Neurosciences</td>
<td></td>
</tr>
<tr>
<td>BIMS 4311</td>
<td>Biology of Cancer</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5311</td>
<td>Principles of Oncology</td>
<td></td>
</tr>
<tr>
<td>BIMS 4327</td>
<td>Introduction to Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5327</td>
<td>Toxicology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4340</td>
<td>Genomics, Proteomics and Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 5340</td>
<td>Genomics, Proteomics and Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>BIMS 4330</td>
<td>Biological Basis of Aging</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5330</td>
<td>Biology of Aging</td>
<td></td>
</tr>
<tr>
<td>BIMS 4374</td>
<td>Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5374</td>
<td>Molecular Medical Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIMS 4375</td>
<td>Mechanisms of Microbial Pathogenesis</td>
<td>3</td>
</tr>
<tr>
<td>or BIMS 5375</td>
<td>Microbial Pathogenesis</td>
<td></td>
</tr>
<tr>
<td>BIOL 4408</td>
<td>Microbial Diversity and Ecology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 5408</td>
<td>Microbial Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4311</td>
<td>Biological Bases of Behavior</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 5311</td>
<td>Cellular Bases of Behavior</td>
<td></td>
</tr>
</tbody>
</table>

Any other 5000 and 6000-level courses would then be taken as graduate courses with the consent of the Graduate Advisory Committee.

**Graduate Required Courses for MS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6315</td>
<td>Statistical Methods in Research I</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5392</td>
<td>Thesis Proposal</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5393</td>
<td>Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5394</td>
<td>Thesis Submission</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 5102</td>
<td>Graduate Defense Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Plus 23 SCH minimum</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

**Total Hours** 36