## BSBT- GENERAL CURRICULUM

### Required Courses

| Course Number | Course Title | Credits/Semester |
|---|---|---|
| **Fall – Year 1** | | |
| BSBT 6072 – 6075 *No class on Labor Day* | BSBT 6072: Foundations in Biochemistry<br>BSBT 6073: Foundations in Molecular Biology<br>BSBT 6074: Foundations in Cell Biology<br>BSBT 6075: Foundations in Genetics | 1.5 each/Fall |
| BIOL 5024 | Introduction to Biotechnology (Denver Campus)<br>*Enrollment in this course can be postponed to year two (Discuss with Program Director)* | 3/Fall |
| Electives | *See, for example, Core Topics short courses that follow the Foundations Courses (Discuss with Program Administrator and Director)* | |
| **Spring – Year 1** | | |
| BSBT 6067 | Statistics for the Biomedical Sciences | 2/Spring |
| BSBT 6071 | R Programming | 1/Spring |
| BIOL 5125 | Molecular Biology Laboratory (Denver Campus) | 3/Spring |
| *Electives* | *Contact Program Administrator and Director* | |
| **Summer – Year 1** | | |
| BSBT 6065 | RCR Case Studies | 1/Summer |
| *Electives* | *Contact Program Administrator and Director* | |
| **Fall – Year 2** | | |
| ENGL 5175 | Writing in the Sciences (Denver Campus or Virtual) | 3/Fall and Spring |
| BSBT 6804 | Bioinnovation Regulations | 3/Fall |
| *Electives* | *Contact Program Administrator and Director* | |
| **Spring – Year 2** | | |
| BSBT 6801 | Biomedical Entrepreneurship | 3/Spring |
| BSBT 6061 | Project Management | 2/Spring |
| BSBT 6939- Section 00**1** | Internship (*Requires prior discussion with Program Director*) | 3-6/All Semesters |

## Elective Courses

Enrollment in elective courses requires prior discussion with the Program Director. While likely, it is not guaranteed that the courses are always offered in the semester indicated.

| Course Number | Course Title | Credits/Semester |
|---|---|---|
| BMSC 7810 Core Topics in Biomedical Science <br><br> *Required for BSBT-MIM <br><br> **Required for BSBT-SBB | **Core Topics A** | |
| | **001 - Discovering Protein Function and Structure | 2/Fall |
| | *002 - Microbiology in Biomedical Research | 2/Fall |
| | *003 - Inflammation | 2/Fall |
| | 004 - Evolutionary Genetics and Genomics | 2/Fall |
| | 005 - Stem Cell Biology to Regenerative Medicine | 2/Fall |
| | **Core Topics B** | |
| | 006 - Gene Regulation and RNA Biology in Disease (PhDs ONLY) | 2/Fall |
| | 007 - The Microbiome in Health and Medicine | 2/Fall |
| | 008 - Principles of Cancer Biology | 2/Fall |
| | 009 - Introduction to Animal Models and Experiments in Developmental Biology | 2/Fall |
| | 010 - Exploratory Data Analysis with R/RStudio | 2/Fall |

| Course Number | Description | Credits/Semester |
|---|---|---|
| BIOE 5074 | Introduction to Laboratory Animal Research | 3/Spring 2024 |
| BIOL 5494 | Population and Evolutionary Genetics | 3/Spring |
| BIOL 6764 | Biological Data Analysis | 3/Spring |
| BSBT 6110 | Intro to Biocomputing | 1/Fall |
| CANB 7600 | Molecular Mechanisms of Cancer | 4/Spring |
| CANB 7620 | Histophysiology | 3/Spring |
| CLSC 7202 | Clinical Outcomes and Applications | 3/Fall |
| CSDV 7605 | Stem Cells and Development | 3/Spring |
| ENTP 6020 | Business Model Development & Plan | 3/Spring |
| ENTP 6834 | Lean Marketing (online) | 3/Spring |
| ENTP 6848 | Leadership in New Ventures | 3/Spring 2024 |
| ENVS 6230 | Environmental Epidemiology | 3/Spring |
| EPID 6630 | Epidemiology | 3/Spring |
| IDPT 7646 | Tissue Biology and Disease Mechanisms | 3/Fall 2024 |
| IMMU 6110 | Intro to Bioinformatics (with an Immunology and Microbiology spin!) | 3/Fall |
| IMMU 6210 | Intensive Advanced Immunology | 3/Spring |
| MKTG 4700 | Personal Selling and Sales Management | 3/Fall |
| MOLB 7900 | Practical Computational Biology for Biologists: Python | 2/Spring |
| MOLB 7910 | Practical Computational Biology for Biologists: R | 2/Spring 2024 |
| NRSC 7501 | Intro to Neuroscience | 1/Fall |
| NRSC 7610 | Fundamentals of Neurobiology | 3/Spring |
| NRSC 7614 | Biological Basis of Psychiatric and Neurological Disorders | 3/Spring |
| NRSC 7615 | Developmental Neurobiology | 3/Spring |
| PHSC 7345 | Nanotechnology and Drug Delivery | 2/Spring |
| PHSC 7651 | Pharmaceutical Biotechnology | 3/Spring |
| PMED 6010 | Foundations in Personalized Health | 3/Fall |
| PMED 6110 | Pharmacogenomics | 3/Spring |
| PMED 6210 | Multi-Omic Approaches in Personalized Medicine (prereq BSBT 6075 or PMED 6010) | 3/Spring |
| PMED 6910 | Applications and Challenges in Personalized Medicine (prereq 6010) | 3/Spring |
| STBB 7609 | Biophysics and Spectroscopy | 3/Spring |