

## Undergraduate Course Requirements

### Lower Division

#### *Biological Sciences*

- General Biology: BIO SCI 93 and BIO SCI 94
- Genetics: BIO SCI 97
- Biochemistry: BIO SCI 98
- Molecular Bio: BIO SCI 99

#### *Mathematics*

- Calculus: MATH 2A, MATH 2B
- One course from STATS 7, 8 or MATH 2D or MATH 3A

#### *Physics*

- Basic Physics Series: PHYSICS 3A, 3B, 3C AND basic physics labs (3LB and 3LC)

OR

A Classical Physics series: PHYSICS 7C, 7D, and 7E AND classical physics labs (7LC and 7LD)

#### *Chemistry*

- General Chemistry: CHEM 1A, CHEM 1B, CHEM 1C (or H2ABC)
- General Chemistry Labs: CHEM 1LC AND CHEM 1LD
- Organic Chemistry: CHEM 51A, Chem 51B, and CHEM 51C
- Organic Chemistry Labs: 51LB, 51LC, (51LD for pharmacy school)

#### *Pharmaceutical Sciences*

- Life 101: PHRMSCI 42
- Ethical Conduct of Research: PHRMSCI 76

### Upper Division

#### *Pharmaceutical Sciences*

- Human Physiology: PHRMSCI 120 (can be substituted by BIO SCI E109)
- Human Physiology Lab: PHRMSCI 120L
- Molecular Pharmacology I and II: PHRMSCI 170A and 170B
- Biophysical Chemistry: PHRMSCI 171
- Topics in Pharmaceutical Sciences: PHRMSCI 172
- Pharmacotherapy: PHRMSCI 173
- Biopharmaceutics and Nanomedicine/ Biopharmaceutics and Nanomedicine Lab: PHRMSCI 174 and 174L
- Medicinal Chemistry and Medicinal Chemistry Lab: PHRMSCI 177 and 177L

#### *Biological Sciences*

- Scientific writing: BIO SCI 100

#### *Upper Division Electives (Take 8 units from the following courses):*

- BIO SCI D103: Cell Biology
- BIO SCI D104: Developmental Biology
- BIO SCI D111L: Developmental and Cell Biology Laboratory
- BIO SCI D129: Biotechnology and Plant Breeding
- BIO SCI D136: Human Anatomy
- BIO SCI D137: Eukaryotic and Human Genetics
- BIO SCI D140: How to Read a Science Paper
- BIO SCI D145: Genomics, Development, and Medicine
- BIO SCI D148: Development and Disease
- BIO SCI D153: Molecular and Cellular Basis of Disease
- BIO SCI D170: Applied Human Anatomy
- BIO SCI E136: The Physiology of Human Nutrition
- BIO SCI E142W: Writing/Philosophy of Biology
- BIO SCI E189: Environmental Ethics
- BIO SCI M114: Advanced Biochemistry
- BIO SCI M114L: Biochemistry Laboratory

# UCI Pharmaceutical Sciences

- BIO SCI M116L: Molecular Biology Laboratory
- BIO SCI M118L: Experimental Microbiology Laboratory
- BIO SCI M120: Signal Transduction in Mammalian Cells
- BIO SCI M121: Immunology with Hematology
- BIO SCI M122: General Microbiology
- BIO SCI M122L: Advanced Microbiology Laboratory
- BIO SCI M123: Introduction to Computational Biology
- BIO SCI M124A: Virology
- BIO SCI M124B: Viral Pathogenesis and Immunity
- BIO SCI M124L: Virus Engineering Laboratory
- BIO SCI M125: Molecular Biology of Cancer
- BIO SCI M137: Microbial Genetics
- BIO SCI M143: Human Parasitology
- BIO SCI M144: Cell Organelles and Membranes
- BIO SCI N110: Neurobiology and Behavior
- BIO SCI N113L: Neurobiology Laboratory
- BIO SCI N153: Neuropharmacology
- BIO SCI N154: Molecular Neurobiology
- CHEM 107: Inorganic Chemistry
- CHEM 107L: Inorganic Chemistry Laboratory
- CHEM 125: Advanced Organic Chemistry
- CHEM 128: Introduction to Chemical Biology
- CHEM 128L: Introduction to Chemical Biology Laboratory Techniques
- CHEM 138: Introduction to Computational Organic Chemistry
- CHEM 156: Advanced Laboratory in Chemistry and Synthesis of Materials
- CHEM 160: Organic Synthesis Laboratory
- CHEM 170: Radioisotope Techniques
- PUBHLTH 121: Introduction to Complementary and Alternative Medicine

## *Additional Pharmaceutical Sciences Courses (not required for major)*

- PHRMSCI 1: New Student Seminar
- PHRMSCI 90: Speaking Science (required for pharmacy school)
- PHRMSCI 163: Pharmacogenomics
- PHARMSCI 198: Independent Study
- PHRMSCI 199: Undergraduate Research
- PHRMSCI H199: Honors Undergraduate Research