

# Lower Division Course Requirement Policies

The lower division course requirements and policies are applicable to students starting the program as Freshman at UCI.

## *Biological Sciences*

### **DNA to Organisms: BIO SCI 93**

- Must be taken Fall quarter 1st year along with CHEM 1A.
- Students must receive a grade of “C-” or above.

### **Ecosystems: BIO SCI 94**

- Must be taken Winter quarter 1st year along with CHEM 1B.
- Students must receive a grade of “C-” or above.
- BIO SCI 93 pre-requisite with a grade of “C-” or above.

### **Genetics: BIO SCI 97**

- Must be taken Fall quarter 2nd year along with CHEM 51A.
- Students must receive a grade of “C-” or above.
- BIO SCI 94 pre-requisite with a grade of “C-” or above.

### **Biochemistry: BIO SCI 98**

- Must be taken Winter quarter 2nd year along with CHEM 51B/LB.
- Students must receive a grade of “C-” or above.
- BIO SCI 97 pre-requisite with a grade of “C-” or above.

### **Molecular Bio: BIO SCI 99**

- Must be taken Spring quarter 2nd year along with CHEM 51C/LC.
- Students must receive a grade of “C-” or above.
- BIO SCI 98 pre-requisite with a grade of “C-” or above.

### **Safety and Ethics: BIO SCI 194S**

- Course can be taken P/NP.
- Must take prior to research/199.

## *Chemistry*

### **General Chemistry: CHEM 1A**

- Must be taken Fall quarter 1st year along with BIO SCI 93.
- Students must receive a grade of “C-” or above.

### **General Chemistry: CHEM 1B**

- Must be taken Winter quarter 1st year along with BIO SCI 94.
- Students must receive a grade of “C-” or above.
- CHEM 1A pre-requisite with a grade of “C-” or above.

### **General Chemistry: CHEM 1C (or H2ABC)**

- Must be taken Spring quarter 1st year.
- Students must receive a grade of “C-” or above.
- CHEM 1B pre-requisite with a grade of “C-” or above.

### **General Chemistry Labs: CHEM 1LC**

- Must be taken with CHEM 1C (coreq).
- Students must receive a grade of “C-” or above.
- CHEM 1B pre-requisite with a grade of “C-” or above.

### **General Chemistry Labs: CHEM 1LD**

- Must be taken Fall quarter 2nd year or during summer prior.
- Students must receive a grade of “C-” or above.

### **Organic Chemistry: CHEM 51A**

- Must be taken Fall quarter 2nd year along with BIO SCI 97 (co-requisite) and CHEM 1LD (co-requisite).
- Students must receive a grade of “C-” or above.
- CHEM 1C and CHEM 1LC pre-requisite with a grade of “C-” or above.

### **Organic Chemistry: CHEM 51B**

- Must be taken Winter quarter 2nd year along with BIO SCI 98 (co-requisite) and CHEM 51LB (co-requisite).

- Students must receive a grade of “C-” or above.
- CHEM 51A and CHEM 1LD prerequisite with a grade of “C-” or above.

#### **Organic Chemistry: CHEM 51C**

- Must be taken Spring quarter 2nd year along with BIO SCI 99 (co-requisite) and CHEM 51LC (co-requisite).
- Students must receive a grade of “C-” or above.
- CHEM 51B and CHEM 51LB prerequisite with a grade of “C-” or above.

#### **Organic Chemistry Labs: CHEM 51LB**

- Must be taken winter quarter 2nd year with CHEM 51B (co-requisite).
- Students must receive a grade of “C-” or above.
- CHEM 51A and CHEM 1LD prerequisite with a grade of “C-” or above.

#### **Organic Chemistry Labs: CHEM 51LC**

- Must be taken Spring quarter 2nd year with CHEM 51C (co-requisite).
- Students must receive a grade of “C-” or above.
- CHEM 51B and CHEM 51LB pre-requisite with a grade of “C-” or above.

#### **Organic Chemistry Labs: CHEM 51LD (Pharmacy school prerequisite only)**

- Students must receive a grade of “C-” or above.
- CHEM 51C and CHEM 51LC pre-requisite with a grade of “C-” or above.

## *Mathematics*

#### **Calculus: MATH 2A**

- Student must receive a grade of “C-” or above.
- Enrollment into course is dependent on AP score and/or placement test.

#### **Calculus: MATH 2B**

- Student must receive a grade of “C-” or above.
- MATH 2A pre-requisite with a grade of “C-” or above.

#### **One course from STATS 7,8 or MATH 2D or MATH 3A**

- Student must receive a grade of “C-” or above.
- Pre-requisites vary depending on the course taken.

## *Physics*

#### **Basic Physics series: PHYSICS 3A**

- Must be taken Fall quarter 3rd year after completion of MATH 2A pre-requisite/placement exam or via authorization.
- Students must receive a grade of “D-” or above.
- Can also be completed during summer of 2nd or 3rd year via Study Abroad - UCEAP.

#### **Basic Physics series: PHYSICS 3B**

- Must be taken Winter quarter 3rd year after completion of PHYSICS 3A pre-requisite.
- Students must receive a grade of “D-” or above.
- Can also be completed during summer of 2nd or 3rd year via Study Abroad - UCEAP.

#### **Basic Physics series: PHYSICS 3C**

- Must be taken Spring quarter 3rd year after completion of MATH 2B pre-requisite/placement exam or via authorization.
- Students must receive a grade of “C-” or above.
- Can also be completed during summer of 2nd or 3rd year via Study Abroad - UCEAP.

#### **Basic Physics Lab series: PHYSICS 3LB**

- Must be taken Winter quarter 3rd year with PHYSICS 3B.
- Student must receive a grade of “D-” or above.

#### **Basic Physics Lab series: PHYSICS 3LC**

- Must be taken before graduation.
- Students must receive a grade of “C-” or above.

#### **Classical Physics series: PHYSICS 7C**

- Must be taken Fall quarter 3rd year after completion of MATH 2B pre-requisite/placement exam or via authorization and PHYSICS 7LC (co-requisite).
- Students must receive a grade of “C-” or above.

#### **Classical Physics series: PHYSICS 7D**

- Must be taken Winter quarter 3rd year after completion of PHYSICS 7C, MATH 2B and co-enrollment into MATH 2D and PHYSICS 7LD.
- Students must receive a grade of “D-” or above.

#### **Classical Physics series: PHYSICS 7E**

- Must be taken Spring quarter 3rd year after completion of PHYSICS 7C, and MATH 2B.

- Students must receive a grade of “C-” or above.

**Classical Physics series: PHYSICS 7LC**

- Must be taken Fall quarter 3rd year with PHYSICS 7C.
- Student must receive a grade of “D-” or above.

**Classical Physics series: PHYSICS 7LD**

- Must be taken Winter quarter 3rd year with PHYSICS 7D.
- Student must receive a grade of “C-” or above.

## *Pharmaceutical Sciences*

**Life 101: PHRMSCI 42**

- Student must receive a grade of “D-” or above.

**Ethical Conduct of Research: PHRMSCI 76**

- Students must receive a grade of “C-” or above.

# Upper Division Course Requirement Policies

## *Biological Sciences*

### **Scientific Writing: BIO SCI 100**

- Can be taken during Fall, Winter, or Spring quarter during 3rd year. Must be completed by 3rd year.
- Students must receive a grade of “C-” or above.
- BIO SCI 99 pre-requisite with a grade of “C-” or above.
- Can be taken P/NP.

## *Pharmaceutical Sciences*

### **Human Physiology: PHRMSCI 120 (can be substituted by BIO SCI E109)**

- Must be taken Fall quarter junior year.
- Students must receive a grade of “C-” or above.
- BIO SCI 99 pre-requisite with a grade of “C-” or above.

### **Human Physiology Lab: PHRMSCI 120L**

- Must be taken fall quarter junior year.
- Students must receive a grade of “C-” or above.
- BIO SCI 99 pre-requisite with a grade of “C-” or above.

### **Molecular Pharmacology I: PHRMSCI 170A**

- Must be taken Winter quarter junior year.
- Students must receive a grade of “C-” or above.
- Pharmsci 120 & Chem 51C pre-requisites with a grade of “C-” or above.

### **Molecular Pharmacology II: PHRMSCI 170B**

- Must be taken Spring quarter junior year.
- Students must receive a grade of “C-” or above.
- Pharmsci 170A pre-requisites with a grade of “C-” or above.

### **Biophysical Chemistry: PHRMSCI 171**

- Must be taken Fall quarter senior year.
- Students must receive a grade of “C-” or above.
- Math 2B, Physics 3C, Chem 1C and Bio 99 pre-requisite courses with a grade of “C-” or above.

### **Topics in Pharmaceutical Sciences: PHRMSCI 172**

- Must be taken Fall quarter senior year.
- Students must receive a grade of “C-” or above.
- Bio 99 and Chem 51C pre-requisite courses with a grade of “C-” or above.
- Can be taken P/NP.

### **Pharmacotherapy: PHRMSCI 173**

- Students must receive a grade of “C-” or above.
- PHRMSCI 170B pre-requisite/co-requisite requirement with a grade of “C-” or above.

### **Biopharmaceutics and Nanomedicine: PHRMSCI 174**

- Must be taken Fall quarter senior year.
- Students must receive a grade of “C-” or above.
- PHRMSCI 170B pre-requisite course with a grade of “C-” or above.

### **Biopharmaceutics and Nanomedicine Lab: PHRMSCI 174L**

- Must be taken Fall quarter senior year.
- Students must receive a grade of “C-” or above.
- BIO SCI 100 and PHRMSCI 174 pre-requisite courses with a grade of “C-” or above.

### **Medicinal Chemistry: Pharm Sci 177**

- Must be taken Winter quarter senior year.
- Students must receive a grade of “C-” or above.
- BIO SCI 98 and CHEM 51C pre-requisite courses with a grade of “C-” or above.

### **Medicinal Chemistry Lab: PHRMSCI 177L**

- Must be taken Winter quarter senior year.
- Students must receive a grade of “C-” or above.
- BIO SCI 100 and CHEM 51C pre-requisite courses with a grade of “C-” or above.

## *Upper Division Electives (8 units total)*

Students must meet course criteria per department policies. Upper division electives taken towards the PharmSci requirements must be taken for a letter grade. Students must receive a grade of “D-” or above in these courses.

## *Additional Undergraduate Pharmaceutical Science Courses*

*(not required for major)*

### **PHRMSCI 1: New Student Seminar**

- P/NP Course.

### **PHRMSCI 90: Speaking Science (Required for Pharmacy school)**

- Students must receive a grade of “D-” or above.

### **PHRMSCI 163: Pharmacogenomics**

- Students must receive a grade of “D-” or above.

### **PHRMSCI 198: Independent Study**

- P/NP Course.

### **PHRMSCI 199: Undergraduate Research**

- P/NP Course.

### **PHRMSCI H199: Honors Undergraduate Research**

- P/NP Course.

# Pre-Requisites & Co-Requisites Course Chart

Course	Pre-Requisites	Co-Requisites
<b>PHRMSCI 90</b> Speaking about Science	--	--
<b>PHRMSCI 120</b> Human Physiology	BIO SCI 99	--
<b>PHRMSCI 120L</b> Human Physiology Lab	--	PHRMSCI 120
<b>PHRMSCI 163</b> Pharmacogenomics and Epigenetics	BIO SCI 99	--
<b>PHRMSCI 170A</b> Pharmacology I	CHEM 51C PHRMSCI 120	CHEM 51C
<b>PHRMSCI 170B</b> Pharmacology II	PHRMSCI 170A	--
<b>PHRMSCI 171</b> Physical Biochemistry	MATH 2B PHYSICS 3C CHEM 1C BIO SCI 99	
<b>PHRMSCI 172</b> Topics in PharmSci	BIO 99 CHEM 51C	CHEM 51C
<b>PHRMSCI 173</b> Pharmacotherapy	PHRMSCI 170B	PHRMSCI 170B
<b>PHRMSCI 174</b> Biopharmaceutics and Nanomedicine	PHRMSCI 170B	--
<b>PHRMSCI 174L</b> Biopharmaceutics and Nanomedicine	PHRMSCI 170B BIO SCI 100	
<b>PHRMSCI 177</b> Medicinal Chemistry	CHEM 51A CHEM 51B CHEM 51C BIO SCI 98	--
<b>PHRMSCI 177L</b> Medicinal Chemistry Lab	CHEM 51A CHEM 51B CHEM 51C BIO SCI 100	PHRMSCI 177