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

**NOTE:** Students who do not pass bolded courses by the indicated quarters will be asked to change their major.

### 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 “D-“ or above.

**Ecosystems: BIO SCI 94**
- Must be taken Winter quarter 1st year along with CHEM 1B.
- Students must receive a grade of “D-“ or above.
- BIO SCI 93 pre-requisite with a grade of “D-“ or above.

**Genetics: BIO SCI 97**
- Must be taken Fall quarter 2nd year along with CHEM 51A.
- Students must receive a grade of “D-“ or above.
- BIO SCI 94 pre-requisite with a grade of “D-“ or above.

**Biochemistry: BIO SCI 98**
- Must be taken Winter quarter 2nd year along with CHEM 51B/LB.
- Students must receive a grade of “D-“ or above.
- BIO SCI 97 pre-requisite with a grade of “D-“ 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 “D-“ or above.
- BIO SCI 98 pre-requisite with a grade of “D-“ or above.

### 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 prerequisite 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 "D-" or above.
• Enrollment into course is dependent on AP score and/or placement test.

Calculus: MATH 2B
• Student must receive a grade of "D-" or above.
• MATH 2A pre-requisite with a grade of "D-" or above.

One course from STATS 7,8 or MATH 2D or MATH 3A
• Student must receive a grade of "D-" or above.
• Pre-requisites vary depending on the course taken.

Physics

Basic Physics series: PHYSICS 3A
• Must be taken prior to enrollment in PHYSICS 3B and 3C, and after completion of MATH 2A pre-requisite/placement exam or via authorization, during 3rd year.
• 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 series: PHYSICS 3B
• Must be taken 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 BEFORE Fall quarter 4th 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 with or after completion of 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 prior to enrollment in PHYSICS 7D and 7E, and after completion of MATH 2A pre-requisite/placement exam or via authorization, during 3rd year.
• Students must receive a grade of "C-" or above.

Classical Physics series: PHYSICS 7D
• Must be taken after completion of PHYSICS 7E pre-requisite.
• Students must receive a grade of "D-" or above.
Classical Physics series: PHYSICS 7E
• Must be taken BEFORE Fall quarter 4th year after completion of MATH 2B pre-requisite/placement exam of via authorization.
• 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**
- 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.
<table>
<thead>
<tr>
<th>Course</th>
<th>Pre-Requisites</th>
<th>Co-Requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHRMSCI 90 Speaking about Science</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>PHRMSCI 120 Human Physiology</td>
<td>BIO SCI 99</td>
<td>--</td>
</tr>
<tr>
<td>PHRMSCI 120L Human Physiology Lab</td>
<td>--</td>
<td>PHRMSCI 120</td>
</tr>
<tr>
<td>PHRMSCI 163 Pharmacogenomics and Epigenetics</td>
<td>BIO SCI 99</td>
<td>--</td>
</tr>
<tr>
<td>PHRMSCI 170A Pharmacology I</td>
<td>CHEM 51C</td>
<td>CHEM 51C</td>
</tr>
<tr>
<td>PHRMSCI 170B Pharmacology II</td>
<td>PHRMSCI 170A</td>
<td>--</td>
</tr>
<tr>
<td>PHRMSCI 171 Physical Biochemistry</td>
<td>MATH 2B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYSICS 3C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 1C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO SCI 99</td>
<td></td>
</tr>
<tr>
<td>PHRMSCI 172 Topics in PharmSci</td>
<td>BIO 99</td>
<td>CHEM 51C</td>
</tr>
<tr>
<td></td>
<td>CHEM 51C</td>
<td></td>
</tr>
<tr>
<td>PHRMSCI 173 Pharmacotherapy</td>
<td>PHRMSCI 170B</td>
<td>PHRMSCI 170B</td>
</tr>
<tr>
<td>PHRMSCI 174 Biopharmaceutics and Nanomedicine</td>
<td>PHRMSCI 170B</td>
<td>--</td>
</tr>
<tr>
<td>PHRMSCI 174L Biopharmaceutics and Nanomedicine</td>
<td>PHRMSCI 170B</td>
<td>BIO SCI 100</td>
</tr>
<tr>
<td>PHRMSCI 177 Medicinal Chemistry</td>
<td>CHEM 51A</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>CHEM 51B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 51C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO SCI 98</td>
<td></td>
</tr>
<tr>
<td>PHRMSCI 177L Medicinal Chemistry Lab</td>
<td>CHEM 51A</td>
<td>PHRMSCI 177</td>
</tr>
<tr>
<td></td>
<td>CHEM 51B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 51C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO SCI 100</td>
<td></td>
</tr>
</tbody>
</table>