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.
- PHRMSCI 170B pre-requisite/co-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 100 and PHRMSCI 174 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

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<td>PHRMSCI 163 Pharmacogenomics and Epigenetics</td>
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<td>PHRMSCI 170B Pharmacology II</td>
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<td>PHRMSCI 171 Physical Biochemistry</td>
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