PHARMACOLOGICAL CHEMISTRY (CH35)

Requirements for the PHARMACOLOGICAL CHEMISTRY B.S. Degree

The Pharmacological Chemistry major provides a strong background in chemistry and includes most courses required by California pharmacy schools. The major is intended primarily to prepare students for pharmacy school (Pharm.D.). Students fulfilling their elective requirements with appropriate courses would be prepared for graduate school to obtain a Ph.D. in pharmacology, biochemistry or other areas of science. Degree recipients would also be prepared for most jobs in the biotechnology and chemical industries.

Pharmacological chemistry students are strongly encouraged to complete a full year of general chemistry and a full year of lower-division biology. As with some medical programs, some pharmacy programs may require a full year of these courses and may not accept tests such as the Advanced Placement exam to satisfy these requirements.

The following courses must be taken for a letter grade, unless that is not permitted:

**Lower-Division Requirements**
1. Biology (BILD 1, 2 and 3).
2. General chemistry including laboratory (CHEM 6A-6C or 6AH-6CH, and 7L, or equivalent).
3. Calculus-based physics including laboratory (PHYS 2A-2B and 2C or 2D or equivalent, and either 2BL, 2CL or 2DL. PHYS 2CL is recommended and is usually the course required by pharmacy schools. PHYS 2CL is the prerequisite for CHEM 105A).
4. Calculus (MATH 20A–20D, or equivalent).
5. Pharmacology seminar (CHEM 92).

Most California pharmacy schools require a course in public speaking for admission to the school. Students planning to apply to these programs should take Introduction to Speech, Theatre TDGE 25, or an appropriate course at a community college.

**Upper-Division Requirements**
1. Two quarters of physical chemistry (CHEM 126-127 recommended, or the equivalent).
2. Three quarters of organic chemistry (CHEM 140A-C).
3. Three quarters of biochemistry (CHEM 114A-B-C).
4. Four laboratory courses (CHEM 100A, 143A, 143B and either 108, 109 or 143C).
5. One quarter of pharmacology and toxicology (CHEM 118).
6. One chemistry elective course chosen from among all the upper-division and graduate courses offered by the Department of Chemistry and Biochemistry (except non-letter graded courses- 4 Units of CHEM 199 may be petitioned).

If ACS certification is desired, CHEM 120A, CHEM 105A and one additional UD laboratory course are required. Any of these courses would satisfy #6 above.

Updated 05/06/2015
Suggested Program for Pharmacological Chemistry B.S. Major  
(ACS Certification requires additional courses)  
(Talk to your college for planning general education courses)  
Many courses have enforced prerequisites or are offered once per year.

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* Best time to study abroad. Education Abroad Program deadlines for upcoming year vary by country. See EAP website. See the Chemistry & Biochemistry Undergraduate Advisor for assistance in planning to study abroad.  
** CHEM 108 or 109 or 143C.

**RESOURCES**

To be successful in your academic career, you will need to make the most of the services available to you at UCSD. Get connected to the services available to you as soon as possible to make the most of your education!

American Chemical Society-Student Affiliates  
Email: ucsdacssa@gmail.com  
acssa.ucsd.edu

UCSD Web Site: www.ucsd.edu

UCSD General Catalog  
www.ucsd.edu/catalog

UCSD Career Services Center  
858-534-3750, career.ucsd.edu

UCSD Undergraduate Admissions  
858-534-4831, admissions.ucsd.edu

Campus Walking Tours  
858-822-1455, admissions.ucsd.edu/tours

Education Abroad Program  
858-534-1123, programsabroad.ucsd.edu

Undergraduate Colleges  
The colleges determine the general education requirements that you must complete in addition to your major requirements. Be sure to meet with a college advisor.

Thurgood Marshall, 858-534-4110,  
marshall.ucsd.edu

John Muir, 858-534-3580,  
muir.ucsd.edu

Revelle, 858-534-3490,  
revelle.ucsd.edu

Eleanor Roosevelt, 858-534-9864,  
roosevelt.ucsd.edu

Earl Warren, 858-534-4350,  
warren.ucsd.edu

Sixth College, 858-822-5955,  
sixth.ucsd.edu