

## SYLLABUS – Spring 2026

The right to adjust the syllabus at any time is reserved.

### Chemistry 130A: Pharmaceutical Chemistry

**Instructor:**

Professor Jacquelyn Gervay-Hague

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Office Hours: Please schedule an appointment here:

<https://calendly.com/jgervayhague/30min>

**Course Description:** **This is a three-week accelerated course** that provides an introduction to the bioorganic chemistry principles behind the design and production of pharmaceutical agents. The course content is focused on explaining and predicting how small organic molecules bind to biological receptors, inhibit enzymes, and are metabolized. This course will draw on and expand upon material covered in introductory organic chemistry such as proposing reasonable arrow-pushing mechanisms for organic reactions and predicting the reactivity of organic molecules with particular reagents.

**Schedule:** 09:00-12:00 on 5/12, 5/14, 5/19, 5/21, 5/26, 5/28

**Venue:** R208, IBC, AS

**Textbook: Available as PDF**

"The Organic Chemistry of Drug Design and Drug Action, 3rd Edition" Richard B. Silverman and Mark W. Holladay

Chemistry 130A will cover parts of Chapters 1 through 6.

Assigned reading pages and end of Chapter homework problems (in parenthesis):

Readings	Homework
Chapter 1: 1-15	(1-6)
Chapter 2: 17-35, 54-83	(8-10, 24-26)
Chapter 3: 123-157	(1, 3, 4, 7)
Chapter 4: 165-195	(1, 4, 6, 7, 10a, 11, 12, 14)
Chapter 5: 208-256	(1, 2, 4, 6, 8, 14a)
Chapter 6: 275-318	(2, 3, 6, 7, 11, 15)

**Course Grading:**

Attendance	20%
Quizzes	60%
Final Design Project	20%

**Attendance & Participation:** Full credits are given for those who attend all lectures punctually and participate actively when called on during lecture.



## NSAIDS

### Topic 4: Anticancer Therapies

Concepts to be covered - ADME  
Routes of Administration  
Absorption  
BBB

### Topic 5: Progress in Addiction Medicine

#### **Policies:**

**Strategies for success:** Attend all in-class lectures, take detailed notes, which should be primary study source. Quiz material will almost entirely come from the class notes. Group study is highly recommended. The group can compare class notes and help each other understand the material.

**Regrades:** Legitimate questions about the grading of quizzes (either the grading of a particular problem or an addition error in the score) can be submitted up to one day after the quiz is handed back. The procedure for submitting a regrade request is to attach a separate piece of paper to the front of the quiz with the question(s) to be regraded and a brief justification for the regrade. Do not write on the quiz itself or it may not be accepted for a regrade.

#### **UC Code of Conduct policies will be enforced:**

<https://ossja.ucdavis.edu/code-academic-conduct>