

CHEM 130B: Pharmaceutical Chemistry 2, Spring 2020 Academia Sinica Taiwan

This course will provide hands-on experience with modern computational methods used in the drug design process. A variety of different computational methods—pharmacophore modeling, automated molecular docking, etc.—will be described and applied using real-life drugs and related molecules.

Instructor: Prof. Dean Tantillo; djtantillo@ucdavis.edu

TA: Tiffany Zhang; yuezh@ucdavis.edu

Recommended Texts

- *“Molecules and Medicine”* E. J. Corey, Barbara Czako, Laszlo Kurti Wiley, 2007
- *“The Organic Chemistry of Drug Design and Drug Action”, 3rd Edition* Richard B. Silverman Elsevier/Academic Press

Our Expectations

- *This class is not about memorization. It is about developing analytical thinking and problem-solving skills.*
- We will utilize and expand upon most everything covered in undergraduate Organic Chemistry.

Course Requirements

- **mini lab reports:** 400 points total
- **presentation:** 150 points total
- **drug design report:** 450 points total (2 parts; see below)
- **total:** $10+400+150+450 = 1000$ points total

Drug Design Report

- **proposal:** your choice of a “drug family”; 50 points
- **report:** background on your “drug family” + description of computations you perform on your “drug family” to design new analogues; 400 points

Presentation

- Individual 10 minute presentations on your drug design project; 150 points

Policies

- **assignments:** All late assignments will be assessed a penalty that is proportional to how late the assignment is. No exceptions will be made.
- **mutual respect:** We are all adults and should treat each other as such. Cheating of any kind (including plagiarism!) will not be tolerated.
- **academic participation:** from <https://participate.ucdavis.edu/> ... “Starting with Fall Quarter (September 2018), all students will be required to acknowledge the Code of Academic Conduct for each registered course. Beginning on the first day of instruction my.ucdavis.edu will notify students online and through email to participate in keeping UC Davis a fair and honest community.”

Strategies for Success

- **don't wait:** The drug design project is a lot of work, so start as early as possible!