

## CHEM 130B: Pharmaceutical Chemistry 2, Spring 2018 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.

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### 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:** 425 points total
- **presentation:** 150 points total
- **drug design report:** 425 points total (2 parts; see below)
- **total:** 425+150+425 = 1000 points total

### Drug Design Report

- **proposal:** your choice of a “drug family”; 25 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.

### Strategies for Success

- **build models:** Build models of molecules whenever you can!
- **don't wait:** The drug design project is a lot of work, so we highly recommend starting as early as possible!