CHEM 1310: Synthetic Organic Chemistry of Drugs

Fall 2018

Mondays & Wednesdays

11:00 - 11:50 am

Chevron 132

Dr. Alexander Deiters

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This advanced undergraduate/early graduate level course builds onto sophomore organic II by applying the learned concepts, as well as new ones, to the synthesis of **FDA-approved drug molecules**. The emphasis of the course will be on

- analyzing the molecular structures of drugs in a retro-synthetic fashion
- developing suitable synthetic routes to drug molecules
- understanding key steps of the syntheses and their reaction mechanisms

We will further discuss fundamental functional group interconversions, chemoselectivity and protecting group use, enantioselective synthesis, and organometallic chemistry – all in the context of making drug molecules. You will learn about the complexities of modern drug molecules, how their structures can be analyzed, and how they are synthesized by medicinal chemists. The class atmosphere of this 2-credit course will be very interactive, due to its small size (capped at 20 students), and provide an immersive learning environment.

I hope to see you in the fall! Feel free to email me anytime if you would like to see the syllabus or if you have any questions: deiters@pitt.edu. Or simply swing by my office in Chevron 1305.

Alex Deiters