

Course Overview



Course Information

Code: PCH-406

Title: Drug Discovery

Cr hr: 2+0

Level: 8

Program: PharmD

Co-requisites: None

Prerequisites: PCH-405

Course Description

Drug discovery course aims to provide students with an understanding of the process of drug discovery and development from the identification of novel drug targets to the introduction of new drugs into clinical practice. It covers the basic principles of how new drugs are discovered with emphasis on lead identification, lead optimization, classification and kinetics of molecules targeting enzymes and receptors, prodrug design and applications, as well as structure-based drug design methods. Recent advances in the use of computational and combinatorial chemistry in drug design will also be presented.

Topics

- Introduction to drug design and discovery
- Sources of drugs and lead compounds
- Rationale approaches to lead optimization
- Enzymes as targets of drug design
- Receptors as targets of drug design
- Prodrug design and applications
- Combinatorial chemistry
- Computer-aided drug design