

CHEMISTRY (CHEM)

CHEM 535. Advanced Organic Chemistry. (4 Credits)

This course is an advanced survey of modern organic chemistry focusing on synthesis using the retrosynthetic approach. Selected topics include classical organic syntheses in addition to pharmaceutical drug applications and process development synthesis.

CHEM 555. Instrumental Analysis. (4 Credits)

This course is an in depth study of the use of instruments in chemical analysis. Topics include the basic theory and techniques of instrumental methods of analysis, with emphasis on spectrophotometry, NMR, and gas and liquid chromatography. 2 hours lecture, 4 hours lab.

Prerequisite: CHEM 225.

CHEM 561. Environmental Chemistry and Toxicology. (3 Credits)

This course is a study of how natural environmental processes are driven by chemical reactions and how these processes are affected by toxicants –natural as well as artificial. Specific areas of concentration include the atmosphere and global warming, hydrosphere, energy, toxicology, and disposal of dangerous wastes.