

Medicinal Chemistry, including Bioorganic Chemistry and Natural Products Chemistry

Course requirements for two possible tracks within medicinal chemistry, bioorganic chemistry or molecular biology/biochemistry, are detailed below. Students will need to consult with their major advisor to discuss tracking and choice of electives.

Mandatory requirement for all College of Pharmacy graduate students

PHAR 735 Foundations of Drug Action 4 credits

Required courses for all medchem/natural products graduate students

BB590, 591, 592 Biochemistry 9 credits
PHAR585 Drug Design 3 credits (winter, odd years)
PHAR537 Bioorganic Chemistry(Biosynthesis) 3 credits (fall, odd years)
15 credits

Courses for the Bioorganic Chemistry Track

CH630, 631 Adv. Organic Chemistry 6 credits
CH535 Structure Determination by Spectroscopic Methods 3 credits

Courses for the Molecular Biology/Biochemistry Track

Biochemistry/Molecular Biology Labs 3-6 credits
MCB525 Molecular and Cellular Biology Techniques 3 credits
BB593, 594, 595 Biochemistry Lab 3 credits/term
MCB554 Microbial Genetics 4 credits

Possible Electives

CH661 Separations: Chromatography + Related Methods 3 credits
CH636,637,638 Selected Topics in Organic Chemistry 3 credits/term
CH697 Mass spectrometry of Organic Compounds 3 credits
CH524 Bioanalytical Chemistry 3 credits
BB654 Proteins 3 credits
PHAR575/TOX575 Advanced Xenobiotic Metabolism 3 credits
PHAR564 Receptors and Signal Transduction 3 credits
ST511 Methods of Data Analysis 4 credits
MCB554 Microbial Genetics 4 credits
MCB555 Eukaryotic Genetics 4 credits
MCB556 Cell Signaling and Development 3 credits
MB516 Immunology 3 credits