

Medicinal Chemistry

- Graduate studies in medicinal chemistry involve applying the knowledge of chemistry to research associated with therapeutically useful compounds. This research includes the design and synthesis of new classes of therapeutic agents, the chemical modifications of existing drugs leading to an improved therapeutic effect, the correlation of the chemical structure of a drug with its pharmacological activity, the development and improvement of techniques used in the analysis of therapeutic agents, and the study of how chemical properties affect drug distribution and metabolism.
- A plan of study in medicinal chemistry would emphasize courses in chemistry (analytical, biological, medicinal, organic and physical) with support courses in natural products chemistry, pharmacology, and pharmaceuticals.
- Specific thesis or dissertation research projects would be dependent upon the mutual interest of the student and the major professor.

Faculty with interests in Medicinal Chemistry:

- Dr. Ronald A. Hill, Associate Professor of Medicinal Chemistry
- Dr. Khalid El Sayed, Assistant Professor of Medicinal Chemistry
- Dr. Seetharama Jois, Assistant Professor of Medicinal Chemistry

Required Courses for Medicinal Chemistry

Chemistry 4007 OR Chemistry 5041 & 5042	Instrumental Analysis
Chemistry 5051 and 5052	Biochemistry
Pharmacy 4009	Medicinal Chemistry II
Pharmacy 5066 and 5068	Advanced Medicinal Analysis
Pharmacy 5000	Molecular Structure & Function of Proteins
Pharmacy 5031	Synthetic Medicinals
Pharmacy 5039	Special Topics
Pharmacy 5052	Seminar
Pharmacy 5069	Concepts in Drug Design
Pharmacy 5099 OR Pharmacy 6099	Thesis Research/Dissertation Research