**M.S. Program – Pharmacology and Toxicology**

### August Orientation
- Orientation:
  - Certifications and Training
  - Meet potential mentors
  - Overview of courses and program
- Diagnostic Exam
- Diagnostic Exam Review

### Fall semester - First year
- Lab rotations I & II
- Attend all departmental seminars
- Choose potential mentor

### Spring semester - First year
- Lab rotations III & IV (if needed)
- Finalize mentor choice
- Attend all departmental seminars
- Present mini-seminar

### Summer after 1st year
- Concentrated research
- Attend all departmental seminars
- Form M.S. Committee
- Submit summer research abstract to Research/Louisville

### Fall semester - Second year
- Attend all departmental seminars
- Present summer research poster at Research/Louisville
- Meet with M.S. Committee

### Spring semester - Second year
- Register as Master Candidate
- Apply for M.S. degree
- Attend all departmental seminars
- Finalize thesis in concert with your mentor
- Submit thesis to M.S Committee
- Present and defend M.S. thesis
- Submit thesis to SIGS
- M.S. Defense
- Conferring of M.S. degree – CONGRATULATIONS!!

### Major required courses
- Principles of Drug Action (2)
- Biochemistry I (4)
- Methods and Analysis in Biomedical Sciences (2)
- Physiological Concepts for Pharmacology (2)
- Neuropharmacology (2)
- Research Methods in Pharmacology & Toxicology(2)
- Statistics (2)
- Cardiovascular and Renal Pharmacology (2)
- Endocrine and Metabolic Pharmacology (2)
- Selective Toxicity and Chemotherapy (1)
- Scientific Writing (2)

### Other courses
- Research (1)
- Seminars (1 – pass/fail)
- Research (4)
- Seminar (1 – P/F)

### Benchmarks and Progress
- Orientation:
  - Certifications and Training
  - Meet potential mentors
  - Overview of courses and program
- Diagnostic Exam
- Diagnostic Exam Review

### Lab rotations
- I & II
- III & IV (if needed)
- Attend all departmental seminars
- Choose potential mentor
- Present mini-seminar

### Research
- (1)
- Seminars (1 – pass/fail)
- (4)
- (4)