

Syllabus Elements

09/08/06

***Course Number** PHMY551

***Title** Recent Advances in Pharmacology

***Credit Hours** 1

Course Master Yuan Luo

***Semester Taught** – Fall

***Prerequisites** – Pharmacology I (PHAR536), Pharmacology II (PHAR 546)

***Prior Learning Skills** –

Fundamental Pharmacology

Basic biochemistry and molecular biology

***Eligible Class Standing** – Y3 and Y4

Maximum Enrollment – 20

***Course Catalog Description** – Provide the students with an understanding of the recent progress in basic and clinical Pharmacology research, from new concepts in Pharmacology to the new techniques and trends in Pharmacology.

Expanded Course Description – The course consists of totally 8 sessions (2 hr each) provided by instructors with expertise in each topic. Reading materials are provided at least one week prior to the class on the Blackboard. The first portion (about 40 minutes) will be devoted to the background of the topic provided usually in a lecture format by the instructor, and the remaining portion (about 45 minutes) for active discussion by the students on the paper(s).

Pathway – N/A

***Dual-degree Program** – N/A

Required and Recommended Texts/Readings –

Assigned reading from recent literature

Required Equipment – N/A

Activities – small group discussion

Preceptors – N/A

***Site Selection Criteria** – N/A

***Course Outcomes:**

The student will be able to:

1. Discuss the background and rationale for design of preclinical research.
2. Understand the general research methodology
3. Interpret the research findings supporting or refuting a working hypothesis.
4. Identify a reasonable strategy to follow-up on the research findings

***Assessments –**

Exam 1 50% (20 pts pre topic, short essay questions)

Exam 2 50% (20 pts pre topic, short essay questions)

Individual instructors will be asked to grad based on the following criteria:

a. knowledge of the subject

b. critical thinking

c. communication skill

Course grades will be determined as follows:

➤ A (90-100%)

➤ B (80-89%)

➤ C (70-79%)

➤ F < 70%.

Schedule – once a week on Tuesdays from 4-5:50pm, PLC 107

(see attached file: schedule 06 PHMY551)

| Date | Topics | Faculty |
|-------------|---|----------------|
| 9/26 | Rational design of therapeutic agents | Dr. MacKerell |
| 10/3 | Cocaine and Methamphetamine | Dr. Coop |
| 10/10 | Drug development for Alzheimer's disease | Dr. Luo |
| 10/17 | New Frontiers in antihypertensive drug | Dr. Moreton |
| 10/24 | Exam | |
| 10/31 | Protein kinase inhibitors as cancer drug target | Dr. P Shapiro |
| 11/7 | Towards personalized medicine | Dr. Liu (NIDA) |
| 11/14 | Drug metabolism-related liver toxicity | Dr. H Wang |
| 11/21 | Metabolomics by NMR | Dr. M Shapiro |
| 11/28 | Final | |