

MEDICINAL CHEMISTRY I

(30:715:409)

FALL 2017

Times and Location: Monday, Wednesday, Friday 1:55-2:50 PM; SEC-111

Textbooks:

- *Foye's Principles of Medicinal Chemistry, Seventh Edition*, By Thomas L. Lemke, David A. Williams, Victoria F. Roche, and S. William Zito, Lippincott Williams & Wilkins, 2013
- *Organic Chemistry Concepts and Applications for Medicinal Chemistry*, By Joseph E. Rice, Academic Press, 2014

Optional Resource: ChemDraw Ultra 14.0

(<http://sitelicense.cambridgesoft.com/sitelicense.cfm?sid=113>)

Course Home Page: <http://medchem.rutgers.edu/MedChemI/index.shtml>

I. Nomenclature of Polycyclic and Heterocyclic Rings (Sept. 6 - Sept. 15)

Dr. Rice, Room # 320; Office Hours: By Appointment; email: jrice@pharmacy.rutgers.edu

Reading:

Rice, Chapter 6 – The Nomenclature of Cyclic and Polycyclic Compounds
(Students are encouraged to re-read Chapters 1-5 to review basic concepts)

Cholinergic and Adrenergic Drugs (Sept. 18 – Oct. 4)

Dr. LaVoie, Office Hours: By Appointment; email: elavoie@pharmacy.rutgers.edu

Reading:

Rice, Chapter 7 – Drug Metabolism
Foye, Chapter 9- Drugs Affecting Cholinergic Neurotransmission
Foye, Chapter 10- Adrenergic Receptors and Drugs Affecting Adrenergic Neurotransmission

EXAM # 1 - Friday, October 6, 2017, 2:00-3:30 PM, Room TBA

II. Cardiovascular Drugs

Dr. LaVoie (Oct. 9 – Nov. 1)

Dr. Chackalamannil (Nov. 3 – Nov. 8) **email: samuel.chackalamannil@rutgers.edu**

Reading:

Foye, Chapter 21- Cardiac Agents: Cardiac Glycosides, Antianginal, and Antiarrhythmic Drugs
Foye, Chapter 22- Diuretics
Foye, Chapter 23- Agents Affecting the Renin-Angiotensin Pathway and Calcium Blockers
Foye, Chapter 24- Central and Peripheral Sympatholytics and Vasodilators
Foye, Chapter 25- Antihyperlipoproteinemics and Inhibitors of Cholesterol Biosynthesis

EXAM # 2 – Friday, November 10, 2017, 2:00-3:30 PM, Room TBA

III. Antithrombotics and Antihistamines

Dr. Chackalamannil (Nov. 13 – Nov. 27)

Reading:

Foye, Chapter 26- Antithrombotics, Thrombolytics, Antiplatelets, and Coagulants

Foye, Chapter 32 – Antihistamines and Related Antiallergic and Antiulcer Agents

IV. CNS Stimulants (Nov. 29 – Dec. 11)

Dr. Hu, Room # 314; Office Hours: *By Appointment*; email: longhu@rutgers.edu

Reading:

Foye, Chapter 19- Hallucinogens, Stimulants, and Related Drugs of Abuse and Their Therapeutic Potential

Foye, Chapter 18- Antidepressants

Foye, Chapter 11- Serotonin Receptors and Drugs Affecting Serotonin Neurotransmission

EXAM # 3 – Thursday, December 14, 2016, 2:00-3:30 PM, Room TBA

FINAL EXAM - Optional for all students and **Cumulative** for the semester (**Counts as two hourly exams.**)

Course Policies

Grading: In addition to the examinations, there may be **ANNOUNCED OR UNANNOUNCED QUIZZES** throughout the semester, worth up to 10% of your semester grade. Quizzes will be based on concepts discussed in class as well as on the reading assignments from the handouts posted on Sakai and the textbooks. **Make up quizzes are not given.** Attendance is mandatory! Students are expected to be in class and ready for lecture at the scheduled time. Grades in medicinal chemistry are based solely on the numerical average of your tests and quizzes and are not curved. Numerical grades are calculated as: $\text{grade} = [0.9(\text{exam average}) + 0.1(\text{quiz average})]$. **Grades: A, 100-90; B+, 89-85; B, 84-80; C+, 79-75; C, 74-70; D, 69-60; F, <60.**

Absence From Class: Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to the faculty coordinator.

Exams: Have student ID or photo drivers license face up on desk during exams. Calculators, PDAs, cell phones, pagers, portable radios, etc may not be used during exams. When you enter the exam room you are to **TURN OFF** all cell phones and pagers and you may not have them on your person during the exam. Textbooks, notes, and handouts are to be closed once you enter the exam room. **Come prepared with 2 or 3 pens or pencils** – but regrading of any answers written in pencil will not be allowed. *You may not ask any questions during the exam.* If you wish to dispute something on the exam write a note in the margin. When the announcement to “put your pencils or pens down” is made you must **immediately stop writing.** If you continue to write your exam may not be accepted or you might lose points. When it is announced in class that your exams may be picked up you will have 7 calendar days to submit it for regrading. **No regrading of any exam for any reason will be done after 7 days.**