CH 225 – INTRODUCTION TO MEDICINAL CHEMISTRY
SPRING 2020 Thursday: 6:30 PM - 9:00 PM Location: Lab Science 201

Instructor:
Dr. Jon Swanson
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Summary:
CH 225 is an introductory course on the basic concepts of drug structure, interactions, and metabolism relevant to medicinal chemistry. We will study the structure and physicochemical properties of drugs and their targets and how these determine the drug’s mechanism of action and the body’s response. Additionally, basic concepts of drug design and development will be covered.

Text Book (required):
An Introduction to Medicinal Chemistry, Graham L. Patrick, Sixth Edition

Other References (not required):
The Organic Chemistry of Drug Design and Drug Action, Richard B. Silverman

Tentative Class Schedule:

Background
January 16 Introduction to Medicinal Chemistry Lecture Notes Assignment 1

Drugs
January 23 Properties of Drugs Lecture Notes Assignment 2
Patrick 395-418 (ch 18)
January 30 ADME Patrick 162-186 (ch 11) Assignment 3
February 6 ADME (cont) Patrick 162-186 (ch 11) Assignment 4
February 13 EXAM 1

Targets
February 20 Drug Targets Patrick 1-43 (ch 1-3) Assignment 5
February 27 Drug Targets Patrick 44-90 (ch 4-6) Assignment 6
March 5 Pharmacodynamics Patrick 93-127 (ch 7-8) Assignment 7
March 19 Pharmacodynamics (cont) Patrick 128-161 (ch 9-10) Assignment 8 Extra Credit
March 28 EXAM 2

Drug Discovery and Development
April 2 Drug Discovery Patrick 197-255 (ch 12-13) Assignment 9
April 9 Drug Design Patrick 256-321 (ch 14-15) Assignment 10
Assignments and Grading:
Assignments are due the week after they are assigned. Each assignment is worth 15 points. Two extra credit assignments will be provided (10 points each). Late assignments will be deducted 10% for each week they are late, unless prior arrangements have been made with the instructor.

There will be three exams. Each exam will cover one section of the course material. The exams are not comprehensive. Each exam is worth 150 points.

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<thead>
<tr>
<th>Exam 1</th>
<th>150</th>
<th>A: 540 or above</th>
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<tbody>
<tr>
<td>Exam 2</td>
<td>150</td>
<td>B: 480 - 539</td>
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<td>Exam 3</td>
<td>150</td>
<td>C: 420 - 479</td>
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<td>Assignments</td>
<td>150</td>
<td>D: 360 - 419</td>
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<td>Total</td>
<td>600</td>
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<td>A passing grade requires a grade of C or better</td>
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If a student has to miss a class or an exam, they should contact the instructor in advance.

Academic Integrity:
It is dishonest and a violation of student academic integrity if you plagiarize, cheat on an examination, copy or collaborate on assignments without permission, fabricate or falsify data or records, or engage in other forms of deceit or dishonesty. Complete information about the University’s Academic Integrity Policy may be found at http://www.wustl.edu/policies/undergraduate-academic-integrity.html. Policies concerning academic integrity, intellectual property, and proper citation apply equally to electronic, online and conventional print resources. All violations of standard rules of academic integrity will be reported to and investigated by the Dean of University College. If it is determined that you have acted dishonestly, or even if you have admitted the charges prior to a formal investigation or hearing, an appropriate sanction will be imposed, including automatic failure of the assignment or the course, or in the case of serious or repeated violations, suspension or expulsion from the University. Withdrawing from a course will not prevent the Dean from imposing or recommending sanctions. If you observe another student violating this policy, you have a responsibility to report the misconduct to the instructor, and/or seek advice from the appropriate dean or academic integrity officer. Ask me if you have any questions or need additional resources about proper citation, attribution of sources, collaboration with other students, or any other related aspect of academic integrity or plagiarism.

Special Needs and Disabilities:
If you require accommodations for taking exams or for lectures, please contact Cornerstone: the Center for Advanced Learning, located in Gregg Hall, 935-5970, www.cornerstone.wustl.edu. I will provide any accommodations for which you qualify as long as I receive the appropriate documentation from Cornerstone. Cornerstone serves as the official University resource for approving and arranging students’ accommodations. All information is treated as confidential.