

Note: this is last year's syllabus as an example
MUSC College of Graduate Studies
Summer Graduate Course-Tentative Lecture Schedules
July 19-Aug 13, 2010
Room EL 102, 9:30-11:30 am

Course Director: Besim Ogretmen, Ph.D.

Unit 1. Medical Chemistry

Unit Leader: Craig Beeson, Ph.D.

beesonc@musc.edu, QF309C, 876-5091

Date	Day	Time	Topic	TA/Instructor
July 19	M	9:30-11:30	Covalent bonding and molecular Shape Resonance	Beeson
July 20	T	9:30-11:30	Alkanes/Cycloalkanes Alkenes	Beeson
July 21	W	9:30-11:30	Aromatics Acid/base reactions	Beeson
July 22	Th	9:30-11:30	Nucleophilic substitutions Introduction to mechanisms	Beeson
July 23	F	9:30-11:30	Discussions Problem Solving (Homework assignments)	Beeson

Study Aides available on the web:

http://members.aol.com/profchm/acid_str.html

<http://www.chemguide.co.uk/basicorg/bondmenu.html#top>

<http://www.chemguide.co.uk/basicorg/isomermenu.html#top>

<http://www.chemguide.co.uk/basicorg/acidmenu.html#top>

<http://wb.chem.lsu.edu/htdocs/people/sfwatkins/MERLOT/drawlewis/dls.html>

<http://www.stolaf.edu/depts/chemistry/courses/toolkits/125/js/lewis/>

http://web.chem.ucla.edu/~harding/tutorials/resonance/draw_res_str.html

http://www.usm.maine.edu/~newton/Chy251_253/Lectures/Polarity/PolarityFS.html

<http://courses.chem.psu.edu/chem38/mol-gallery/hybridization/hybrids.html>

<http://www.yk.psu.edu/~jhb3/cotw08.htm>

A really great tutorial site:

<http://www.ochem.com/>

Unit 2. Nucleic Acids

Unit Leader: Besim Ogretmen, Ph.D.

ogretmen@musc.edu, BSB 518E, 792-0940

Date	Day	Time	Topic	Instructor
July 26	M	9:30-10:30	DNA, RNA and the Flow of Genetic Information	Cowart
July 26	M	10:30-11:30	Basic Tools of Gene Exploration	Cowart
July 27	T	9:30-11:30	DNA Replication, Recombination and Repair	Cowart
July 28	W	9:30-11:30	RNA Synthesis and Splicing	Ogretmen
July 29	Th	9:30-11:30	The control of gene expression Protein Synthesis	Ogretmen
July 30	F	9:30-10:30	Protein Synthesis	Ogretmen
July 30	F	10:30-11:30	Discussions and problem solving (Assignments and/or final exam)	Ogretmen

Text Book: Biochemistry (5th edition), Berg, Tymoczko, Stryer, W.H. Freeman and Company, New York, NY, Chapters 5, 6, 27, 28, 29, and 31.

Unit 3. Proteins

Unit Leader: Yi-Te Hsu, Ph.D.

hsuy@musc.edu, BSB 512C, 792-0849

Instructors:

Mirko Hennig, Ph.D. hennig@musc.edu, BSB 535D, 792-7336

Yi-Te Hsu, Ph.D. hsuy@musc.edu, BSB 512C, 792-0849

Eleanor Spicer, Ph.D. spicer@musc.edu BSB 512E, 792-7475

Yong-Mei Zhang, Ph.D. zhangym@musc.edu, BSB 535E, 792-0388

Date	Day	Time	Topic	Instructor
Aug 2	M	9:30-11:30	Principles of Protein Structure: Amino Acids, Peptides and Proteins	Hennig
Aug 3	T	9:30-11:30	Use of Protein Chemical and Physical Properties for Analytical Purposes	Hsu
Aug 4	W	9:30-11:30	How Structure Dictates Function	Spicer
Aug 5	Th	9:30-10:30	Introductory Enzyme Kinetics	Zhang
Aug 5	Th	10:30-11:30	Paper presentations (Assignments)	Hsu
Aug 6	F	9:30-11:30	Paper presentations (Assignments)	Hsu

Unit 4. Cell Biology

Unit Leader: Ed Krug, Ph.D.

krugel@musc.edu, CRI 607, 792-1543

Instructors:

Hiroko Hama, Ph.D. (hama@musc.edu, BSB 518C, 792-6949)

David Kurtz, Ph.D. (kurtzdt@musc.edu, BSB 321, 792-5844)

Steven Rosenzweig, Ph.D. (rosenzsa@musc.edu, BSB 318, 792-5841)

Dayna Wolff, Ph.D. (wolffd@musc.edu, Children's Hospital EH222D, 792-3574)

Date	Day	Time	Topic	Instructor
Aug 9	M		Cellular Compartmentalization	TBA
Aug 9	M		Cytoskeleton and Extracellular Matrix	TBA
Aug 10	T	9:30-10:30	Sorting and Secretion	TBA
Aug 10	T	10:30-11:30	Cell Adhesion and Cell Motility	TBA
Aug 11	W	9:30-10:30	Cell Signaling	TBA
Aug 11	W	10:30-11:30	Cell Cycle	TBA
Aug 12	Th	9:30-10:30	Cell Specialization: T-Cell Differentiation and Function (TBA)	TBA
Aug 12	Th	10:30-11:30	Genetic Basis of Disease	TBA
Aug 13	F	9:30-10:30	Experimental Methodologies	TBA
Aug 13	F	10:30-11:30	Review of Core Curriculum Exam Questions	TBA

Text Book: The Cell: A Molecular Approach. G. M. Cooper, Sinauer Assoc., Inc. Sunderland, MA.