

Spring 2012
Biological Chemistry II (CHM 4307)

Course instructor:

Dr. Jaroslava Miksovska

Office: CP 328

phone: 305-348-7406

email: miksovsk@fiu.edu

Office hours: Monday, Wednesday, Friday 11:00 pm to 12:00 pm, or by appointment

Text book: **Biochemistry, Berg, Tymoczko and Stryer, 6th edition**

This textbook is NOT required but may be of significant use to some students.

Lectures:

The class will meet on Mo We Fr 10:00 – 10:50 pm am, CP 197.

Description: This is a 3 credit course that focuses on the biochemistry of DNA and RNA, DNA replication, transcription and translation, biochemistry of fatty acids, photosynthesis, and signal transduction.

Topics to be covered in the class:

Block 1: Flow of genetic information

- a) DNA and RNA structure (Chapter 4)
- b) Exploring genes and genomes (Chapter 5)
- c) DNA replication, repair and recombination (Chapter 28)
- d) RNA synthesis and processing (Chapter 29)
- e) Protein synthesis (Chapter 30)
- f) The control of gene expression (Chapter 31)

Block 2: Transduction, storing energy, responding to environmental changes

- a) The light reaction in photosynthesis (Chapter 19)
- b) The Calvin cycle and the pentose phosphate pathways (Chapter 20)
- c) Fatty acid metabolism (Chapter 22)
- d) Membrane channels and pump (Chapter 13)
- e) Sensory systems (Chapter 32)
- f) Molecular motors (Chapter 34)

Attendance policy

In accordance with University policy, you are expected to attend every scheduled class. If you have a valid reason for missing class such as a University-sponsored activity, religious observances, illness, or family emergency, the instructor will assist you in obtaining information and materials you may have missed. Students who skip class without a valid excuse should not expect the instructor to supply class notes or provide special help.

Homeworks: Homework will be assigned weekly and solutions will be provided online. (Homework will not be graded).

Exams: There will be **three midterm exams** and **one cumulative final exam**.

TENTATIVE EXAM SCHEDULE

Midterm exam 1: February 6
Midterm exam 2 : March 5
Midterm exam 3: April 9
Final exam : April 23, 9:45AM - 11:45AM

Grading policy:

The final grade will be based upon **two midterm exams and the cumulative final exam**. There will be three midterm exams during the semester. The lowest exam score will be dropped and your grade will be based upon two highest exam scores. **No make-up exams will be given.** If you miss an exam, it will be your lowest score. If you must miss the final exam, you have to provide an university excuse to take an a make-up exam.

The table below summarizes the various grade components and their point values:

<i>Component</i>	<i>Points</i>
2 x midterm exam	2 x 50
Final exam	100
Total	200

Percentages for grade cutoffs are as follows:

90 for an A
80 for an B
70 for an C
60 for an D
< 60 for an F

Cutoffs for grades will be no higher than those listed above, but may be lowered if appropriate.

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

Deadlines, exam schedule and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. To get information about changes in this course consult or e-mail the instructor.