

**Biochemistry - Membranes & Metabolism**  
**CHEM 3812-1**  
**WINTER, 2013**

Instructor: Dr. Scott D. Pegan  
Rm: SGM 251  
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**Text:** Lehninger: principles of biochemistry, 5th ed.  
Supplemental: Voet & Voet, Biochemistry as well as Stryer, Biochemistry

You are required to know everything that is discussed in class and assigned in the assigned textbook.

**Additional Materials Needed:** A subscription to Sapling Learning's on-line system will be necessary to complete the homework.

**Topics to be covered:**

amino acids and proteins (chapter 3)  
carbohydrates (chapter 7)  
lipids (chapter 10)  
biological membranes and transport (chapter 11)  
bioenergetics (chapter 13)  
glycolysis, gluconeogenesis, and the pentose phosphate pathway (chapter 14)  
principles of metabolic regulation: glucose and glycogen (chapter 15)  
citric acid cycle (chapter 16)  
fatty Acid Catabolism (chapter 17)  
oxidative phosphorylation (chapter 19)

**Lectures:** 11-11:50 am, MWF, Olin 205 (See Adjoining Lecture Schedule)

**Office Hours:** 9:45-10:45 Mondays, SGM 251

**Mini-Seminars:** A Group style research project with accompanying presentation. Dates will be announced after the first exam

**Clickers:** This is a clicker enable course. Clicker points will be based on participation in the question being given on that particular day. Individuals with approved absences will receive only half of points for that day. See <http://portfolio.du.edu/click> for clicker details.

**Exams:** There are 3 X 1 h midterm exams during the quarter, plus a 2 h cumulative final exam.

**On-line individual assignments:** Will be assigned on a weekly basis throughout weeks 1-8. These individual assignments are due by 10 pm every Sunday. Specific instruction on how to register for the course on Sapling Learning can be found on the blackboard page for the course.

**THERE WILL BE NO MAKEUP EXAMS.** The exceptions to the no-makeup policy will be for members of a university team or group, e.g. athletic team or music group scheduled to be away from campus at the time of the exam, members of the U.S.

Armed Forces with conflicting obligations, and students with a doctor's note concerning an illness at the time. You must inform your instructor of this prior to the exam and make arrangements at that time for a makeup exam.

Exam 1:	Jan	31, 2014
Exam 2:	Feb	17, 2014
Exam 3:	Mar	3, 2014
FINAL:	Mar	15, 2014

Grading:	Midterm Exams	300 points
	Final Exam	50 points
	Mini-seminar	100 points
	Clicker	50 points
	Homework	80 points

**The assignment of a letter grade to a given numerical grade will depend on the overall class performance. However, if everybody does well, grades will not be curved down. Also, note that points will be deducted from your final grade for disruptive behavior.**

**Projected Grade Ranges** (unless revised lower by the instructor during the course):

A ≥ 94%	B- ≥ 80%	D+ ≥ 67%
A- ≥ 90%	C+ ≥ 77%	D ≥ 64%
B+ ≥ 87%	C ≥ 74%	D- ≥ 60%
B ≥ 84%	C- ≥ 70%	F < 60%

### **Disability Services Program**

1. If you have a disability/medical issue protected under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act and need to request accommodations, please make an appointment with the Disability Services Program (DSP); 303.871.2372/ 2278/ 7432; located on the 4th floor of Ruffatto Hall; 1999 E. Evans Ave. Information is also available on line at <http://www.du.edu/disability/dsp>. See the Handbook for Students with Disabilities.

2. Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Disability Services Program located on the 4th floor of Ruffatto Hall; 1999 E. Evans Ave., to coordinate reasonable accommodations for students with documented disabilities/medical issues. 303.871. / 2278 / 7432/ 2455. Information is also available on line at <http://www.du.edu/disability/dsp>; see the Handbook for Students with Disabilities.

3. If you qualify for academic accommodations because of a disability or medical issue please submit a Faculty Letter to me from Disability Services Program (DSP) in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities/medical issues. DSP is located on the 4th floor of Ruffatto Hall, 1999 E. Evans Ave.; 303.871. 2372/ 2278 / 7432. Information is also available on line at <http://www.du.edu/disability/dsp>; see the Handbook for Students with Disabilities.