
COURSE TITLE and NUMBER:**Medical Biochemistry
BMB 514
(Fall Semester 2013)****FACULTY:** John J. LaPres
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Section Codes for the Course:301 for CHM-EL;
302 for CHM-GR**Lines of Communication:**

- (a) Administrative aspects of the Course: contact course coordinator, John J. LaPres
- (b) Scientific content pertaining to a specific lecture or topic: contact the instructor teaching that specific portion of the course or your on-site instructor.
- (c) Missed exams: Refer to the CHM Preclinical Students Angel website for the "Request for Approval of Absence from Examination or Required Experience" form. Attach completed form and e-mail as an attachment to the appropriate address: CHM-EL students --- absenceEL@msu.edu
CHM-GR students --- absenceGR@msu.edu

Course Web Site: The URL for the Course web site is <http://angel.msu.edu>.

You should pay attention to two MAIN sections at this website:

- (1) Course Home – Course-related communication to the class will be made here. You should check for announcements on a daily basis.
- (2) Course Material – Syllabus, Lecture recordings, tutorials (TT), self-study module (SSM), and all other scientific material will be deposited.

Please note that each visit to any section of *Angel* by an individual student is "tracked" by the computer. Although the instructors of the course will have access to such information, we do not intend to use it.

Office Hours: Students are encouraged: (a) to address questions and suggestions to instructors via the e-mail system; (b) to seek individual consultation with the lecturer or the on-site instructor by appointment throughout the semester; and (c) to attend help sessions.**Help Sessions:** (no new material will be presented; attendance optional; neither broadcast nor recording will be made of these question-and-answer sessions)

- (a) In EL, Help Sessions are scheduled for the following dates, times, and venues.

<u>Date</u>	<u>Time</u>	<u>Instructor</u>	<u>Location</u>
Friday, August 30	Noon - 1:00 pm	Wang	B105 Life Sci
Thursday, September 12	11 am - noon	Wang	A133 Life Sci
Friday, September 20	11 am – noon	LaPres	B105 Life Sci
Friday, October 4	10 am – noon	LaPres	A133 Life Sci
Friday, October 18	12 noon - 1 pm	Wang	A139 Life Sci

(b) [In GR](#),

<u>Date</u>	<u>Time</u>	<u>Instructor</u>	<u>Location</u>
Friday, August 30	Noon - 1:00 pm	Simmons	120 Secchia
Thursday, September 12	11 am - noon	Simmons	120 Secchia
Friday, September 20	Noon – 1:00 pm	Simmons	120 Secchia
Friday, October 4	10 am – noon	Simmons	120 Secchia
Friday, October 18	12 noon - 1 pm	Simmons	120 Secchia

Course Objectives: This course is intended to present a survey of the major biochemical events that occur in normal cells and tissues. It should provide students with a vocabulary of terms they will encounter in other basic science and clinical courses. It will also supply an understanding of the principal biochemical mechanisms that contribute to homeostasis and the inherent capacity of the individual for the maintenance of health and recovery from disease. Where possible, examples will relate directly to human biology. The normal state will be described; abnormal conditions are considered insofar as they serve to illuminate the normal condition.

Prerequisites: One year of college level organic chemistry.

Course Credit by Waiver Examination: As announced in a memo dated June 6, 2013 (from the Biochemistry Department to all CHM students beginning in 2012), this waiver examination will be offered on August 22, 2013, 6-8 pm.

Venues: (a) for CHM-EL students: A133 Life Sciences Building
(b) for CHM-GR students: Room 220, Secchia Center

Textbooks: a) "*Lippincott's Illustrated Review: Biochemistry*," D.R. Ferrier, (Lippincott Williams & Wilkins, 6th edition, 2013).
b) Biochemistry 514 course packet.
c) "*Medical Physiology: Principles for Clinical Medicine*," R.A. Rhoades and D.R. Bell, eds., (Lippincott Williams & Wilkins, 4th edition, 2013). (This is a PSL 534 text.)

Other Instructional Material: In addition to the texts, homework assignments may also be derived from computer-aided instructional (CAI) material. These are available in the CHM Echt Computer Laboratory (A137 Clinical Center) and in the corresponding resource center (3rd Floor Secchia) in GR.

There are four tutorials (TT) that consist of Camtasia recordings posted on the Course website on Angel. An interactive self-study module (SSM), as well as exercises associated with each TT, all provide opportunities to confirm mastery of the material.

There are four clinical cases (CC) that provide excellent examples of the inter-connectedness of several metabolic pathways. Each CC will present data from a real patient, background material to the metabolic problems, and several exercises that will require students to integrate the information learned in lecture sessions. Each CC represents an excellent opportunity to review for the examination shortly following the assignment of the case.

Opportunities to confirm your understanding: You are strongly encouraged to confirm your mastery of the material by working on practice questions in homework problem sets (designated as JW-1, JS-1, JJL, etc.). These are at appropriate places within the course packet (see Lecture schedule, reading assignments, and other homework on pages 2 and 3). Answers to the homework problems are also provided. Homework will not be collected.

All the exams for this course from 2010-2012 can be found at the website, <http://www.bch.msu.edu/courses/514/bch514XM.htm> (Note: This is distinct from the *Angel* course website but can be found as a link from the *Angel* course website). You can use these old exams to gauge the level of the questions to be expected in the course.

Student Feedback on Instruction/Course: The faculty of BMB 514 will be monitoring the effectiveness of the instruction throughout the semester and will be responsive to constructive student feedback. Three main mechanisms are available to assess the attainment of instructional objectives: (a) direct student contact with the instructors; (b) the use of “focus groups” and class liaisons; and (c) the use of instructor/course evaluations.

Over the long-term, student feedback via “focus groups” and instructor/course evaluations provides the instructors with invaluable information regarding student perspectives on the performance of the faculty and the quality of the course. The information gained from these evaluations will be used to develop future offerings of biochemistry.

Evaluation of Student Performance: The achievement of course objectives will be evaluated on the basis of: (a) two in-class quizzes (Quiz #1 and #2); (b) two “In-Semester” exams (Exam #I and #II); and (c) one comprehensive final examination. Questions will deal with material presented in lectures, in the list of specific instructional objectives (see course pack), in the homework assignments, in the tutorials (TT), self-study module (SSM), and in the clinical case (CC) discussions.

Exam/Quiz	Date	Sessions	# of Lectures	# of Points	% of Grade
Quiz #1	09/03	1-6 + TT #1	6 + 1 TT	6	4.3
Exam #1	09/13	1-13 + TT # 1-4 CC-A	13 + 4 TT	32	22.8
Quiz #2	09/24	14-20 SSM #1	7 + 1 SSM	6	4.3
Exam #2	10/07	14-30 + 1 SSM + CC-B	15 +1 CC + 1 SSM	32	22.8
Final Exam	10/21	31-42 + CC-C, D	10 + 1 CC	64 (28 new/36 review)	45.8

(a) Each Quiz will contain 6 questions, to be completed during the first 10 minutes of the (first) class on the date stated, in the lecture venue.

(b) **"In-Semester" Exams:**

Exams #1 and 2 will be held 8 – 9:10 a.m.

(#1) Friday, 09/13

(#2) Monday, 10/07.

Venues:

(1) CHM-EL: A-133 Life Sciences. (2) CHM-GR: 120 Secchia Center.

(c) **Final Exam:** The final exam will be held 8 – 10 am on Monday, 10/21. There will be 28 questions specifically covering the last 12 sessions (#31-42) of the course and Clinical Cases C and D. The remaining 36 questions of the final exam will be comprehensive, reviewing the major points of the course.

Exam venues: as you reported for “In-Semester” exams.

Excused Absences and Make-Up Exams/Quizzes: Make-up exams/quizzes will be given only to students with excused absences, obtained from the respective information listed on page 1 under **Lines of Communication**. Otherwise, there will be no make-up exams offered during the semester. Make-up exams/quizzes (based on excused absences) should be arranged with the instructor or course director.

Grading: A total of 140 points can be derived from the two quizzes, two in-semester exams, and final exam. Course grades will be assigned on the basis of the overall examination scores, delineated below.

CHM
P ≥ 105 points (75%)
CP 98-104 (70-74%)
N < 98 points (70%)

COM
P ≥ 98 points (70%)
N < 98 points (70%)

Students failing to earn 70% overall will receive an **N** grade that remains on their college record. They will be required to remediate in accordance with the policy detailed below.

CHM students that receive the **CP** grade will also need to remediate by examination in order to change the **CP** to a **CP/P** grade.

Remediation: The remediation policy can be found in the student handbook at the following URLs.

CHM---http://chm.msu.edu/current/documents/2011-12_Preclinical_Handbook_-_Version_9.pdf

Consistent with the policies, the remediation opportunities for BMB 514 are as follows:

- (1) Remediation examination: Thursday, January 2nd, 2014, 8-10 am; 60 questions, comprehensive for the course; passing is 75%. Venues to be arranged and announced at a later date.
- (2) Remediation examination: Friday, March 7th, 2014, (time and venue to be arranged); 60 questions, comprehensive for the course; passing is 75%.

All CHM students earning a CP or N are required to take the earliest remediation exam offering unless the later date is authorized by college administrators or the student receives an excused absence (according to college policy) for the earlier exam.

Students failing either remediation exam must retake BMB 514. However, they are NOT eligible for the waiver exam for BMB 514 when they re-enroll in the course.

Academic Honesty: Michigan State University has established policies on the integrity of scholarship and grades (All University Policy on Integrity of Scholarship and Grades). The Colleges of Human Medicine follow these policies and additional policies and procedures as prescribed in the respective documents on Medical Students' Rights and Responsibilities. The faculty, in turn, has the responsibility to insure the integrity of scholarship and grades. In order to facilitate the performance of this responsibility, several specific announcements at the outset may be useful:

- (a) Examination proctors will require students to present [pictured identification](#) when entering the examination venue. Please obtain a pictured identification prior to the first exam and please bring such identification for each exam.
- (b) For each exam, the examination papers will already be distributed (at the seats) prior to students entering the room. Once you enter the exam room, no books, notebooks, etc., can be used for studying before beginning the exam (all backpacks, books, etc., should be stowed as directed by proctors).
- (c) Simple, arithmetic calculators will be provided for your use during exam sessions where you are required to solve numerical problems. No other calculators, computers, cell phones, or other electronic devices will be allowed at exams and quizzes. Turn OFF cell phones.
- (d) An exam proctor might assign specific seating to students. Students must refrain from distracting (e.g., toe or pencil tapping, finger drumming, thinking out-loud, etc.) or suspicious behaviors. Exam proctors have the responsibility to address these behaviors during examinations (e.g., by asking students to change seats). In order to avoid unnecessary anxiety/embarrassment for any individual student, a whole row or column of students may be asked to exchange seats with another row/column.
- (e) Late arrivals will not be admitted to the examination.

This course will make use of the audience response system (clickers) in certain class discussions. As is the case with all issues regarding academic integrity and professional behavior, we will follow the policy stipulated by your college (see CHM student clicker policy): (a) you should register your clicker and bring it to class; (b) you should not loan your clicker to another student; (c) you should not be in possession of a clicker other than your own; and (d) you should not answer questions or check in for attendance on behalf of another student