Chem 3B: Introductory Organic & Biochemistry

Reedley College

Section 52680

Spring 2014

Instructor: Mrs. Jodi Kawagoe email: jodi.kawagoe@reedleycollege.edu phone: 393-1654 (text only)

Class Times: Lecture: M 1:00–2:50 pm in PHY 77

Lab: W 1:00–3:50 pm in PHY 77

Required Texts: Stoker, *Organic and Biological Chemistry*, 6th edition, (ISBN 978-1-1331-0395-0)

Timberlake, *Laboratory Manual for Organic & Biological Chemistry*, custom edition, (ISBN 978-0-558-18630-2)

Materials: Required: safety goggles and a scientific calculator (with exponential notation; **you will NOT be allowed to use your cell phone as a calculator on quizzes or exams**).

Recommended: a molecular model kit for organic chemistry (can be purchased through amazon.com)

Holidays: Monday, January 20; Monday, February 17; April 14-17

# Course Description

# Introduction to the basic concepts of organic and biological chemistry. A study of the structure and behavior of organic and biochemical compounds, including metabolism, and regulation. Topics such as bonding, saturated and unsaturated hydrocarbons, the chemistry of organic functional groups, and the properties of important biological compounds such as carbohydrates, fats, and proteins are covered. Primarily for students in health oriented professions.

# Prerequisite

Chemistry 1A or 3A or equivalent college course with a “C” or better

# Success in Chemistry

To succeed in this class you do not have to be a genius but you will need to work hard. You will need to study *at least* 6 hours each week outside of the classroom. This time will include reading, studying, and doing homework assignments. It is essential that you listen effectively and that you take good lecture notes in class. **Read the assigned material before coming to class** and be prepared to ask questions during the lecture. Chemistry is a cumulative subject; later topics require a good understanding of the earlier material. **It is essential that you not fall behind in your work.**

# Attendance

Because we have lecture only once a week, attendance is very important. If you miss one lecture, you have missed a whole week of instruction! You will be dropped from the class if you are absent for 2 weeks without contacting me. If you do miss a lecture, go to Blackboard to view the slides that we covered that day, watch the lecture video on YouTube and be sure to read text book.

# Homework

Homework will be assigned for each chapter. You should do the homework as soon as possible and come to the next lecture prepared to ask questions. It is almost impossible to learn chemistry without doing homework. Homework will be collected at each exam; do NOT wait until the night before the exam to do all the homework. Homework will not be graded but will be checked for completeness. Extra credit of 2% on the overall course grade will be given if 80% of the homework assignments are completed and turned in. **No late homework will be accepted.** Each assignment is given a number; **you must write the assignment number on your paper to receive credit.**

# Exams

There are four scheduled lecture exams and a cumulative final exam in this class. **There are NO MAKEUPS for missed exams or quizzes. NO EXCEPTIONS!** If you absolutely must be absent on the day an exam is scheduled, you may discuss with me the possibility of taking the exam **early**. The two-hour final exam is cumulative. Your score on the final exam can be used to replace a low score on a previous exam.

# Labs

Lab work will follow as closely as possible the material discussed in the lectures. Prelaboratory assignments are due at the beginning of the lab period. Lab reports are due on the following Monday. You may not leave lab early unless you have completed and turned in the lab assignment. Late labs will be penalized 25%. No labs will be accepted after I have graded that lab. The lowest lab score of the semester will be dropped. Any missed labs will receive a grade of zero. **It is not possible to make up missed labs.**

# Electronic Devices

Technology is wonderful in its place. Please silence your cell phone during class and refrain from texting or surfing the internet. If your cell phone rings during an exam you will lose 5% on the exam grade; if you are caught using your phone during an exam you will receive a zero for that exam. **You may NOT use the calculator on your cell phone during an exam.**

# Grading

The grading scale will be based on a straight percentage:

A = 100% - 90%

B = 89% - 80%

C = 79% - 70%

D = 69% - 60%

F = 59% - 0%

The final grade will be calculated as follows:

Average of exams 55%

Final exam 25%

Lab grade 20%

# Cancelled Classes

If I have to cancel a class there will be a notice on the door and on Blackboard stating that the class is cancelled.

# Blackboard

You are strongly encouraged to make use of Blackboard. It is like a virtual blackboard on the internet where I can post announcements. You can find the course syllabus, lecture and lab schedules, PowerPoint slides, and homework assignments. Slides will be posted in a full-size, color version and as a black & white, 6 slides/page handout version. Some students may find it helpful to print the handout version to bring to class. Please see me if you need help with Blackboard. **You should check Blackboard every day. You are expected to be aware of anything posted there.**

# YouTube

I record my lectures and post them on YouTube. The link is <http://www.youtube.com/user/chemistrywithMrsK>. Watching the videos is not a substitute for coming to class.

# Academic Dishonesty

For the college policy on cheating and plagiarism, refer to the Reedley College catalog. Academic dishonesty is a cause for discipline under Board Policy 5500 (c) and procedures for formal discipline are spelled out in AR 5520 and also in *Student Conduct Standards and Grievance Procedures Handbook* available in the Vice President of Student Services’ office. Every instructor has the authority and responsibility for dealing with such instances of cheating or plagiarism as may occur in class. For current information, consult your dean or the Office of Instruction.

**The penalty for cheating in my class is a zero for both the originator and the copier for that assignment or exam.** Anyone caught cheating will have to meet with me to discuss continued enrollment in the class.

# Accommodations

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible. Please let me know if you have any unusual circumstances in your personal life that may affect your performance or attendance in class.

# Student Learning Outcomes

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| Upon completion of this course, students will be able to: |
| 1. Demonstrate structural formula-name conversions for less complex organic and biochemical compounds. 2. Describe physical properties of organic compounds. 3. Predict products of representative chemical reactions. 4. Explain basic concepts of biomolecules, such as carbohydrates, lipids, proteins, enzymes, and nucleic acids. 5. Safely demonstrate laboratory experiments involving basic organic chemistry and biochemical themes. |
| Learning Objectives |
| In the process of completing this course, students will: |
| 1. Assess the process, products, and coenzymes in metabolic pathways. 2. Describe different organic functional groups and major biological categories of compounds. 3. Use (with safe procedures) laboratory equipment for simple organic chemistry and biochemical experiments. 4. Describe and discuss the procedures used in basic organic chemistry and biochemical experiments. |