

Introductory Organic Chemistry Lecture ~ CHM 124

Course Information & Syllabus ~ Spring Semester, 2014

Instructor

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Office Hours: see CHM 124 Sakai site and Google Calendar link

Required Lecture Materials

- **MindTap eReader Textbook (via OWLv2):** "Organic & Biochemistry for Today," Seager/Slabaugh, 8th Edition
ANY recent edition of the Seager/Slabaugh organic/biochemistry hardcopy textbook may also be used.
- **Online Homework:** OWLv2 6-month or 24-month access for Seager/Slabaugh, 8th Edition
Students from the Fall 2013 CHM 103 sections already have both OWLv2 and MindTap eReader Textbook access.
- **Online Learning Resources:** Lecture Prep Lessons, Pre-Req Skill Checks, Announcements at the CHM 124 Sakai site
Students are responsible for printing their own copies of Skills Summaries and Practice Exams, completing all posted Lecture Prep Lessons and Pre-Req Skill Checks, and carefully reading all posted Announcements.
- **Calculator:** Scientific calculator with log and exponent functions, for pH/pK_a study
No other electronic devices may be used in class at any time, and students may not share calculators during exams.

Class Meetings

Section 001: T Th 3:30 – 4:45 PM Pastore 124 Main Lecture Hall

To be successful, students will need to consistently and diligently *prepare* for lecture, *participate* fully in every class session, and then *practice* the required skills – to become confident, competent and efficient at analyzing and solving problems.

Grading Policy

Each student's course grade will be determined from the results of four Lecture Exams, both the OWLv2 and Sakai online skill practice systems, and the comprehensive Final Exam:

| | |
|--------------------------------------|------------|
| 4 Lecture Exams (17% each) | 68% |
| OWLv2 (Online Web Learning) Homework | 13% |
| Sakai Pre-Req Skill Checks | 2% |
| Comprehensive Final Exam | <u>17%</u> |
| | 100% |

The Final Exam score will *replace* the grade of any *one* of the four Lecture Exams that is *missed OR lower than* the Final Exam score. Thus the Final Exam may count as much as 34% of a student's overall grade.

No extra credit assignments will be given (other than those in OWLv2), and the standard grading scale will be in effect:

90%+ = A- / A; 80-89% = B- / B / B+; 70-79% = C- / C / C+; 60-69% = D / D+; <60% = F.

Grades in CHM 124 are *earned* by demonstrating mastery/proficiency in the required skills. These skills include critical thinking and problem-solving: the ability to apply organic chemistry concepts to relevant scenarios, and predict physical and chemical properties from a study of a compound's molecular structure (*i.e., explain how Structure determines Function*).

To be clear: Each student's grade is determined by the *quality* of the student's performance on the lecture course work items. The grade is *not* open to negotiation, and it is *not* dictated by what's needed to progress in the student's chosen program of study. The grade must be *earned* by achieving *proficiency in* (and ideally, *mastery of*) the skills identified as essential to ongoing success in the student's degree program.

The purpose of replacing a missed Lecture Exam with the Final Exam score is *not* to boost each student's overall average. Instead it is to eliminate the need for make-up tests for any students who are absent on the day of a Lecture Exam.

All students *must* adhere to the exam schedule specified on the syllabus. *No make-up exams will be given, and students who miss an exam should not inquire as to whether they may be given a make-up test.*

Alternate testing *will* be made available for students with a *documented* disability. These students must contact the instructor *as early as possible* in the semester to make arrangements for reasonable accommodations as indicated by the Disability Services for Students Office. Alternate test arrangements for these students (as well as students participating in *University-sanctioned* events *OR* observing religious holidays) *must* be made *at least one full week prior to the scheduled exam*.

Students can anticipate that their graded exam papers will be returned in class *at least one full week* after the exam date. In the interim, students should not inquire as to the status of their test papers. Exam scores will also be communicated to students at the earliest opportunity through the Sakai Grade Book.

If the Kingston campus is closed due to weather (or other unexpected event) on a scheduled Lecture Exam day, students should anticipate that the exam will be given at the *next* class meeting. Details will be communicated via Sakai.

Prepare - Participate – Practice

You'll need to plan for *significant* study time *outside* of class – *both BEFORE and AFTER* you attend the class. The rule of thumb for most college courses: two to three hours of study time *outside* of class for every one hour of *in-class* lecture. As CHM 124 meets a total of 2½ hours each week, you should plan to spend approximately 5 to 7½ hours every week studying chemistry *outside* of class.

To be successful in this course, you'll need to be not just *actively engaged*, but *pro-actively engaged* in building your skills in organic chemistry. This means you'll need to *prepare* for each class meeting, *participate* actively while you're in class, and then *practice* the skills outside of class, until you've achieved *skill mastery*.

Prepare: You'll need to invest some time becoming acquainted with the concepts we'll discuss in each class *BEFORE* you come to class. That way, we can use our class time more strategically -- to help you *understand* the new concepts and *practice* the new skills. Your preparation activities should include:

- Reviewing skills from previous classes (or courses) that are essential to *NEW* skill building – by carefully studying any posted video lessons, working through the relevant *One Page Lessons* and/or *Skills Summaries*, and completing the *Pre-Req Skill Checks*.
- Printing and pre-viewing each organic functional group Skills Summary and Practice Exam question set posted in Sakai.
- *Staying current* in practicing problems relevant to each organic functional group – by completing the OWLv2 homework assignments, Practice Exam questions, and recommended textbook problems.

Participate: When you come to class, you *MUST* bring your print-outs of the relevant *Skills Summary* and *Practice Exam*, and be ready to follow along, take notes, ask and/or answer questions, and practice the skills as we work problems selected from the posted *Practice Exams*.

Practice: Since skill mastery requires extensive problem-solving practice *outside* of class, you'll need to follow up your lecture participation by completing the required homework assignments.

You'll probably *start* with the OWLv2 online homework system, as it's designed to help students both *LEARN* and *PRACTICE* the new skills. OWL provides hints and feedback, and it will let you skill-drill on a problem set as many as ten times before you submit the completed assignment.

You should continue your skills practice by working the remainder of the *Practice Exam* questions, as well as the within-chapter *Learning Checks* and *End-of-Chapter Exercises* in your Seager textbook.

The *MindTap Reader* online version of your Seager textbook (accessed via the OWL homework system) makes it easy to work these problems, as the solutions to the *Learning Checks* and even-numbered *End-of-Chapter Exercises* are available (as pull-down menu items) directly beneath the problem statement.

You and your study partners should continue your skills practice – getting help as needed from me, your Supplemental Instruction (SI) Leader, a Chemistry Teaching Assistant (TA), or an Academic Enhancement Center (AEC) tutor – *right up until each one of the in-class exams*.

If you are absent from a lecture class, you should plan to *immediately* obtain copies of missed lecture content from one (or more) of your study partners. After careful reviewing your partner's lecture notes and the relevant portions of the Skills Summary and textbook, you may also come to my faculty office with your written list of questions regarding the concepts and skills discussed/demonstrated in the missed lecture.

You *CANNOT afford to fall behind in this course*. *EVERY* new concept will build on concepts that you should have previously *MASTERED* in this course *OR* in the pre-requisite course: CHM 101/112 or CHM 103. *You MUST take responsibility for reviewing those concepts as needed*.

Lecture Work Items:

1. Lecture Exams

Lecture exams are likely to have two parts: 1) a portion with structure-drawing, problem-solving, and essay-answer questions, and 2) a portion with multiple-choice questions.

Exam questions will come *directly* from the content presented and discussed during lecture, and are likely to be similar to the problems in the OWL online study system, the recommended problems in the textbook, and the practice test questions in your *Skills Book*.

Students should commit to working *as many of these problems as possible* as practice for the exams. The goal is to become *confident, competent and efficient at analyzing and solving problems*. The students who get the *MOST* practice solving problems tend to have the greatest success in science and math courses.

2. OWLv2 (Online Web Learning) System

The OWLv2 (Online Web Learning) System was designed to help students *learn*, and then *practice* the skills needed for success in their chemistry course.

The OWL assignments include “*Mastery*” exercises (with pooled questions), and Non-Mastery “*Activity*” exercises (which may feature videos or tutorials) and “*End-of-Chapter*” questions. Completion of “*Mastery*” exercises requires that you answer a certain number questions correctly out of a group (usually two out of three). The questions will be pulled at random from a larger pool of questions each time you “*retry the group.*”

For all assignments, you’ll have one “*submission/take,*” but up to ten attempts to complete each question within the assignment *before YOU* choose to end your “*take,*” and submit the completed assignment for credit. This means that you can cycle through a group of questions – and/or you can choose to “*save and exit*” the assignment (and return to it later) – as many as ten times.

Your objective should *NOT* be to simply *click* through assignments until each question shows the “*green check*” of a correct response. It should be to carefully *work* your way through each assignment, *trying to learn as much as you can*. This may mean working some of the more challenging “*Mastery*” question sets several times, to draw new questions from the pool and get extra skills practice. You want to take full advantage of OWL’s ability to provide both skills practice opportunity and instant feedback on how you’re progressing in building the needed skills. Since this homework is intended as a key part of your *learning* and *skills practice*, the assignments can be worked in student study groups and/or with help from a tutor.

You must stay on track and on time with your OWL homework, as each assignment will have a “*due date*” (corresponding to the timing of that topic in the course), and an “*unavailable date*” (corresponding with an exam or other course milestone). If an assignment has been started before the due date, it can be worked until the unavailable date without penalty.

Each OWL assignment will be indicated as either *required* or *extra credit*. A student’s OWL% score is the *ratio* of the *total* points the student has earned (*required* + *extra credit*) and the number of *required* points that it’s possible to earn.

Finally – be aware that there’s a learning curve to using the OWL structure-drawing software. A tutorial is provided, but you should start working the assignments immediately, so you’ll have time to build proficiency and get help if needed.

And you should make a practice of *ALWAYS drawing the molecular structures ON PAPER FIRST*, and *THEN attempting to draw the structures in OWL*.

3. Sakai Lecture Prep Lessons and Pre-Req Skill Checks

These Sakai tools will help serve as the guide to your *preparation* for lecture, your active *participation* in each class session, and your post-lecture skills *practice*.

The *Lecture-Prep Lessons* will contain study instructions, video lessons, and links to the relevant *Skills Summaries* and *Practice Exam Questions*.

The *Pre-Req Skill Checks* will probe your understanding of key pre-requisite skills, and also push you to think more deeply about these fundamental concepts. Similar to the OWL assignments, these consist of “pooled” questions – a set number of questions will be selected at random from a larger pool each time you open the Skill Check. So like OWL, *after* you’ve completed (and received credit for) that Skill Check, you can re-open it to answer a *different* set of questions, and “skill-drill” until you feel you confident that you thoroughly understand every concept and can correctly answer every question.

4. Comprehensive Final Exam

The Final Exam will consist of 100 multiple-choice questions, and will be scantron-graded.

Additional Study Help Resources

- ***Supplement Instruction (SI) Sessions provided by the Academic Enhancement Center (AEC).***

CHM 124 is one of several challenging first-year science/math courses supported by Supplemental Instruction (SI) – a popular type of learning support used by colleges nationwide. URI's Academic Enhancement Center (AEC) trains SI Leaders to facilitate these special learning sessions (SI Sessions) for students.

Jessica, the SI Leader for our CHM 103 sections, will sit in on the class, meet with me regularly, and provide two 90-minute help sessions each week for *any CHM 103 student who wants to participate*. The SI sessions are designed to be a fun, safe, and comfortable learning environment, where students can feel free to ask questions, practice problems, and review and reinforce the key concepts and skills.

The AEC's schedule of SI Sessions is provided at: <http://www.uri.edu/aec/schedules>

- ***Chemistry Graduate Student Teaching Assistants in the Chemistry TA Help Office, Pastore 215.***

The Chemistry Help Office is a place where students can gather to study and work problems, either alone or in small groups, and get help on an as-needed basis -- from Drs. Brittain, Geldart, or McGregor, or one of the Chemistry Graduate Student Teaching Assistants who staff the office during the week. Some of the most successful students in chemistry courses are those who become "regulars" in the Help Office, preferring to study there, rather than in their dorm room, the AEC, or the Library. They set up camp, bring their breakfasts and/or lunches, and work practice problems – on paper or online, using their own laptop or one of the two desktop computers available in the Help Office – and get help as needed.

If you have a general question about lecture, or need help with questions/calculations, you can see any one of the TAs. However, those TAs teaching the CHM 126, 226, 292, or 425 Organic Chemistry labs will be *most* familiar with the content of this course). A complete schedule of TA office hours is available via a link in your CHM 124 Sakai site.

- ***Chemistry Tutors at the Academic Enhancement Center.***

The AEC (www.uri.edu/aec) can help you keep up with class work and study course materials more effectively. Their staff of learning specialists and student tutors can help you identify a study approach, develop effective study strategies, understand course concepts, and practice skills productively. You can study at the AEC alone or in small groups.

The AEC's tutoring service is designed to support the goals of in-class instruction and promote effective study techniques. The tutors are URI students who have been recommended by professors. They're hired based on their level of success in the courses they tutor, their excellent study skills, and their ability to work well with other students. Tutors conduct one-on-one and small group sessions for students in a variety of courses. The tutoring service is available by appointment and on a drop-in basis (first come, first served) and is *FREE*.

The AEC is open Monday – Thursday from 10 AM until 9 PM, and on Fridays until 1 PM. All services are free (the coffee is free as well). To get a complete schedule (including when tutors are available specifically for CHM 103), see the AEC website at www.uri.edu/aec/schedules, call (401) 874-2367, or stop by the fourth floor in Roosevelt Hall.

- ***Assistance from Dr. Brittain, during office hours or via email.***

Office Hours: Our CHM 124 Sakai site includes a link to my Google Calendar class/meeting schedule. Students are welcome to check my class/meeting calendar, and stop by at time when they can see I'm available. Students may also email to request an appointment at a particular day/time.

As my faculty office is accessed through the Chemistry TA Help Office, students who simply stop by Pastore 215 can often get their questions answered by a Teaching Assistant or one of the other chemistry lecturers if I'm unavailable.

Email: Please understand that because I have responsibility for two different high-enrollment chemistry courses, I receive a substantial number of email messages each day. To ensure that your email will be answered, it's recommended that you:

- Use a *concise*, yet *descriptive* subject line.
- Include your full name, chemistry lecture (or lab) course number, and section number in the message.
- Make sure the question asked or information conveyed in your message is both *clear* and *complete*.

Study Help Advice

Whether you're seeking help from a Professor, a Chemistry Teaching Assistant, or an AEC Tutor or SI Leader, you need to arrive at your help session *on time* and *fully prepared*, so as to make the discussion as productive and efficient as possible. This means that you should bring all relevant study/reference materials with you to the session.

These include:

- Your notebook of worked homework problems and lecture notes
- Print-outs from the course website (Skills Summaries, Practice Exam Questions, Lab Handouts, etc.)
- For help with the OWLv2 online homework – send an email message from within that particular assignment, and then bring your laptop (or hand-written notes and/or a screen print that *clearly* indicate the particular assignment and question).
- And the most important item – your *written* list of specific questions and/or your goals for the help session.

Illness Due to Flu

The nation is experiencing widespread influenza-like illness. Any student who develops flu-like symptoms is advised to stay home until the fever has subsided for 24 hours. If you exhibit such symptoms, please do *NOT* come to class, but be sure to keep up with your studies via the Sakai Pre-Lecture Lessons and Skill Checks and the OWL online homework system.

The Centers for Disease Control and Prevention have recommended simple methods to avoid transmission of illness. *These include:* covering your mouth and nose with tissue when coughing or sneezing; frequently washing/sanitizing your hands; avoiding touching your eyes, nose, and mouth; and staying home when you are sick.

For more information, please view the CDC Flu website: <http://www.cdc.gov/flu/>

The URI Health Services website will also provide advice and local updates: <http://www.health.uri.edu/>

Academic Honesty

Academic dishonesty in any form is considered a serious offense, and disciplinary action will be taken immediately. The URI policy on academic honesty is detailed in the student handbook (available online), and it is summarized below:

Students are expected to be honest in all academic work. A student's name on ANY written work shall be regarded as assurance that the work is the result of the student's own thought and study. Work should be stated in the student's own words, and produced without assistance.

The following are examples of academic dishonesty:

- *Unauthorized possession or access to exams.*
- *Unauthorized communication during exams.*
- *Unauthorized use of another's work or preparing work for another student.*
- *Taking an exam for another student.*
- *Altering or attempting to alter grades.*
- *The use of notes or electronic devices (e.g. cell phones, calculators) to gain an unauthorized advantage during exams.*
- *Facilitating or aiding another's academic dishonesty.*

When there is an allegation of academic dishonesty, the instructor may:

- ***Fail the student for the assignment, or recommend that the student fail the course.***

Important Spring Semester Deadlines

- *Last day of e-Campus open add period:* Tuesday, January 28th
- *Last day of e-Campus add with permission number:* Tuesday, February 4th
- *Last day for students to drop courses via e-Campus with no transcript designation:* Wednesday, February 12th
- *Last day for students to drop courses via e-Campus (with drop designated on transcript):* Wednesday, March 5th
- *Freshman mid-term grades posted in e-Campus:* Monday, March 17th

Syllabus

| Week # | TUESDAY | THURSDAY |
|---------------|--|--|
| 1 | 1/21: <i>Advising Day</i> | 1/23: <i>Course Information</i> S/S Ch 11: Organic Compounds: Alkanes |
| 2 | 1/28: S/S Ch 11: Organic Compounds: Alkanes | 1/30: S/S Ch 11: Organic Compounds: Alkanes S/S Ch 12: Unsaturated Hydrocarbons |
| 3 | 2/4: S/S Ch 12: Unsaturated Hydrocarbons | 2/6: S/S Ch 12: Unsaturated Hydrocarbons |
| 4 | 2/11: S/S Ch 12: Unsaturated Hydrocarbons | 2/13: <i>EXAM 1</i> |
| 5 | 2/18: S/S Ch 13: Alcohols, Phenols, Ethers, Thiols | 2/20: S/S Ch 13: Alcohols, Phenols, Ethers, Thiols |
| 6 | 2/25: S/S Ch 13: Alcohols, Phenols, Ethers, Thiols | 2/27: S/S Ch 14: Aldehydes and Ketones |
| 7 | 3/4: S/S Ch 14: Aldehydes and Ketones | 3/6: <i>EXAM 2</i> |
| 8 | 3/12: <i>Spring Break</i> | 3/14: <i>Spring Break</i> |
| 9 | 3/18: S/S Ch 15: Carboxylic Acids and their Derivatives | 3/20: S/S Ch 15: Carboxylic Acids and their Derivatives |
| 10 | 3/25: S/S Ch 15: Carboxylic Acids and their Derivatives | 3/27: S/S Ch 16: Amines and Amides |
| 11 | 4/1: S/S Ch 16: Amines and Amides | 4/3: <i>EXAM 3</i> |
| 12 | 4/8: S/S Ch 17: Carbohydrates | 4/10: S/S Ch 17: Carbohydrates |
| 13 | 4/15: S/S Ch 17: Carbohydrates | 4/17: S/S Ch 18: Lipids |
| 14 | 4/22: S/S Ch 19: Proteins | 4/24: <i>EXAM 4</i> |
| 15 | 4/29: <i>Last Class Meeting</i> | 5/1: <i>Reading Day</i> |
| 16 | 5/6: <i>FINAL EXAM for Section 001 (3:30 PM class)</i> <i>3:00 – 6:00 PM in Pastore 124 Main Lecture Hall</i> | |