

GENERAL CHEMISTRY, CH 221
Fall 2015
COURSE SYLLABUS

CRN 11236 10:00 am TWR Room 156 STB Dr. Bryan Nell 541-346-2607 bnell@uoregon.edu	CRN 11237 11:00 am TW Rm 156 STB Dr. Tom Greenbowe 541-346-2218 tgreenbo@uoregon.edu	CRN 11235 3:00 pm TW Room 123 PAC Dr. Bryan Nell 541-346-2607 bnell@uoregon.edu
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Faculty and Curriculum Facilitator: Dr. Brandi Baldock

Course GTF: Brandon Schabes, schabes@uoregon.edu

Office Hours: You are strongly encouraged to ask questions and to seek help early, before you fall behind. Chemistry is challenging. When you do not understand, ask.

Dr. Baldock: Wed. 1:00 – 1:50 pm, Rm. 160 KLA

Dr. Greenbowe: Tue. 1:00 – 1:50 pm, Rm. 171 Onyx
 Wed. 2:00 – 2:50 pm, Rm. 107 KLA
 Thu. 3:00 – 3:50 pm, Rm. 107 KLA

Dr. Nell: Tue. 11:00 – 11:50 am, Rm. 171 Onyx
 Wed. 5:00 – 5:50 pm, Rm. 107 KLA
 Thu. 4:00 – 4:50 pm, Rm. 171 Onyx
 Fri. 4:00 – 4:50 pm, Rm. 107 KLA

Mr. Schabes: Tue. 5:00 – 5:50 pm, Rm. 171 Onyx
 Wed. 6:00 – 6:50 pm, Rm. 107 KLA

- Canvas web site: <http://canvas.uoregon.edu>. All course information, including announcements and lecture notes, will be posted on the Canvas site. Check regularly to be sure that you don't miss important course information.
- High school chemistry is a prerequisite and *Math 111 is a co or prerequisite for this class*. **NOTE:** Math 112 is a pre-requisite for CH 223. You will not be allowed to continue into CH 223 spring term if you have not completed Math 112 or the equivalent by that time. If you feel that your math skills are deficient, you may be better served by spending this term studying math and delaying your study of chemistry until a later time. Please speak with one of us if you have any questions about whether this is the correct class for you. Concurrent registration in the laboratory course, *CH 227, is recommended but not required*.

Required Course Materials:

- Silberberg, M.S and Amateis, P.; Chemistry 7/e with ConnectPlus Custom, ISBN 9781259795083, McGraw-Hill Publishing.
- ALEKS, included at no extra charge with the textbook package when purchased at the UO Duckstore
- Sapling on-line homework system
- Non-graphing scientific calculator (see departmental calculator policy)
- i>clicker 2 - available in the UO bookstore

Course Objectives:

- Develop problem-solving and critical thinking skills that are important for all scientists.
- Develop an understanding of and an appreciation for the connections of chemistry with other disciplines, with everyday experiences, and for how science can help improve the environment.
- Develop content knowledge and skills necessary to progress to more advanced science classes.
- Build confidence in doing and learning chemistry.

Expectations: As a student in General Chemistry, you will be required to learn a new language - the language of chemistry. As you learn to think like a chemist, you will study phenomena in terms of macroscopic, sub-microscopic, and symbolic interpretations. Success in this course requires not only an understanding of the basic vocabulary, facts and concepts, but also the ability to critically analyze relationships between phenomena and to apply knowledge to novel situations. In addition to lectures, there will be classroom activities and assignments designed to help you develop the thinking skills necessary for your academic success.

We expect that you will be prepared for and attend class, arrive on time and not leave early, read and study the book, complete assignments, participate in classroom activities, *and ask questions when you need help*. We also expect you to respect your fellow students and refrain from distracting activities during class. (See Classroom Decorum) In return, you should expect that we will guide your learning, help you develop a framework for your new knowledge, answer your questions and show you how to apply what you have learned to new topics.

Course Content: This is the first term of the three-term university General Chemistry sequence. Chapters 1 – 4 and 6 – 8 in the Silberberg/Amateis text will be covered. It would be a mistake to assume that all of the material covered in the lectures appears in the text, or vice-versa. Therefore, it is important that you study both the text and the lecture notes. Exam questions will expect you to assimilate concepts and examples from both the textbook and the lecture and will not necessarily be the same as examples that you have seen before.

The course is Science group satisfying. *Group satisfying courses in the sciences should introduce students to the foundations of one or more scientific disciplines, or should provide an introduction to fundamental methods (such as mathematics) that are widely used in scientific disciplines. Courses should introduce students to the process of scientific reasoning. (UO Senate legislation)*

Grading: Hour Exam, 7:00 pm, Thu. Oct. 22	25%
Hour Exam, 7:00 pm, Thu. Nov. 12	25%
Sapling on-line homework (9 assignments of equal weight)	10%
Clicker questions (lowest 4 percentage scores dropped)	5%
ALEKS assignments (lowest 4 learning objective scores dropped)	5%
Final Exam, 5:00 pm, Tue. Dec. 8	30%

The following percentages ensure the corresponding grades: 90% = A, 78% = B, 62% = C, 50% = D, <50% = F. These cut-offs may be shifted downward slightly at the end of the term, depending on course averages. That is, for example, if events warrant, we might go a little below 78% for a “B”, but never above as the lower cutoff. Please see Canvas for further information about the Department of Chemistry and Biochemistry grading standards.

If you have chosen the P/N option, you must earn the equivalent of a C– to receive a P (pass) in this course. A course grade of incomplete (I) will be considered only for individual cases with cause. An incomplete grade is not meant to be a substitute for an undesirable regular letter grade. *An incomplete may be issued when the quality of work is satisfactory, but some minor yet essential requirement has not been completed, for reasons acceptable to the instructor. (http://registrar.uoregon.edu/incomplete_policy)*

Sapling Homework Assignments:

All homework assignments are done within the Sapling homework. Information on purchasing and accessing Sapling will be included in a separate document that will be posted on Canvas. All assignments are due at 11:59 pm on the date indicated, generally a Wednesday. Study groups are encouraged but remember that all work that is submitted must represent your work and your work only.

ALEKS Assignments

Chemistry is a complex and challenging subject. To make sure you do well enough in it to fully advance your personal educational and career goals, the UO General Chemistry courses have incorporated the ALEKS online chemistry assessment and tutoring service into our instruction. We have done this because we have solid data that show this service can improve mastery and retention, particularly for students who would otherwise have difficulty passing. You will have regular required assignments using ALEKS, and you can expect to spend at least several hours a week working on them. Just how much time has to be spent will vary from student to student and will depend critically on how efficiently you use the ALEKS service. ALEKS assignments are generally due on Thursday and Sunday nights at 11:59 pm. A separate ALEKS QuickStart guide will be posted on Canvas that will explain how to access ALEKS and how you can get the most from ALEKS with the least time and effort.

SmartBook with LearnSmart: Your General Chemistry textbook is available in an electronic SmartBook format. This book is “smart” in that it adapts to your personal learning needs by creating a personalized reading experience and highlighting the most impactful concepts you need to learn at a given moment in time. The SmartBook contains four stages: Preview, Read, Practice and Recharge. Starting with an initial Preview of each chapter and key learning objectives, as you read the material you will be guided to topics that you need the most practice on based on your responses to LearnSmart “flash cards”. Read and Practice continues until SmartBook directs you to Recharge the important material that you are most likely to forget so that concept mastery and retention are ensured.

Use of the SmartBook and LearnSmart is not required and will not be graded.

Academic Dishonesty:

Academic dishonesty in any guise, including plagiarism, fabrication, and cheating, will not be tolerated. All work submitted in this course must be your own and produced exclusively for this course. Additional information about plagiarism, including examples, can be found at <http://libweb.uoregon.edu/guides/plagiarism/students/>. Consequences of academic dishonesty range from receipt of a failing grade on the assignment to an F in the course. All violations will be taken seriously and are noted on student disciplinary records. For further information, refer to the Student Conduct Code at

<http://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx>

COURSE POLICIES:

Exam policy:

1. No make-up quizzes or exams will be given. In no instance will an exam be given early. Written requests for alternate testing arrangements due to conflicts with authorized and unavoidable university events must be made during the first two weeks of the term. Documentation must be included with all requests.
2. You must bring #2 pencils and an approved calculator to quizzes and exams.
3. Only approved calculators may be used during quizzes and exams. Sharing of calculators is not allowed.
4. A limited number of calculators will be available to check out during the exam on a first-come, first-served basis. A 5% penalty on the exam will be assessed should you choose to check out a calculator.
5. The use of electronic dictionaries is not allowed. Paper dictionaries must not contain ANY extra writing and must be presented to the instructor or head proctor at the beginning of the exam for inspection.
6. UO Student identification cards must be brought to each quiz or exam and may be requested by the instructor or assisting proctor at any time.
7. The "hat rule" will be enforced during all exams. All baseball caps must be removed or turned backwards. All brimmed hats must be removed.
8. All cell phones and other wireless communication devices must be turned OFF and placed under your seat with your backpack and other belongings. *Use of a cell phone during an exam for ANY reason will be regarded as a violation of academic dishonesty guidelines.*
9. Headphones and unauthorized earpieces must be removed during quizzes and exams.
10. Keep all exam material at your seat – not on the seat next to you. Stow away ALL other personal materials (bags, packs, phones, etc.) under your seat.
11. A Periodic Table, appropriate equations, and physical constants will be provided with each exam.

Calculator policy:

The UO General Chemistry Committee has adopted a policy whereby only certain models of calculators are allowed in quizzes and examinations. This is to provide a level playing field for all students and preclude devices with communications capabilities.

An inexpensive non-programmable scientific calculator without text storage or graphing capabilities (for example: Casio FX-115MSPlus, TI 30X IIS or TI 30X IIB, HP 10S, or Sharp EL-5XX series) should be brought to all quizzes and exams, even if you're not sure if you will use it. *Calculators will not be provided.* Make sure your calculator is in good working order and that batteries are fresh. The calculator you use should have capabilities for square roots, logarithms, scientific notation operations and a y^x key. Inquiries about the acceptability of calculators must be made in advance of entering the exam room. It is in your best interest to familiarize yourself with your calculator *before* the exam by using it for homework assignments.

The following types of calculators are NOT approved for use during quizzes and exams:

- graphing calculator
- hand-held or laptop computer
- calculator that requires an outlet
- calculator that makes noises or "talks"
- calculator with a QWERTY (typewriter-like) keypad
- pocket organizer
- electronic writing pad or pen input device
- calculator that communicates with other calculators
- calculator that accepts a "chemistry card"
- cell phone calculator

If it is determined that a student is using a non-approved calculator, the calculator will be confiscated and returned at the end of the exam. The student will be required to complete the examination without a calculator. Following the examination, the instructor may decide to proceed with a charge of cheating.

Clicker Tips and Policies:

Clicker Registration: Clickers must be registered through the link on the CH221 Canvas site. Registrations made through the iClicker web site *will not be recorded*. Any points earned before your clicker is registered will be awarded retroactively after your clicker is registered.

Clicker questions will be asked during most lectures. Generally, class will begin with two or three *quiz questions* based on concepts from the reading and previous lectures. These questions will earn 2 points each for a correct response. Questions will also be asked during class to give you a chance to assess your understanding and to provide me with feedback as to the pace and coverage of the material. These questions will generally not be graded. Because most of the clicker points will be based on participation, it is in your best interest to attend class every day and remember your clicker. Each day's points will be converted to a percentage and posted on Blackboard. The lowest 4 daily percentage scores will be dropped at the end of the term. You must be present to earn clicker points and no make-ups will be given.

If you forget your clicker, or your battery fails during class, we will give you TWO opportunities to still earn credit. In order to get credit, you must write down your name, UO ID number, date, and your answers to each question. For answers involving calculations, all work must be shown. You must turn this in to before leaving the classroom. Submissions will not be accepted after that time. After two paper submissions, you will not receive credit.

Clickers should be brought to class every day. It is your responsibility to ensure proper clicker operation. Avoid rough treatment to keep the clicker operating properly. In the event that you lose or damage your clicker, you will need to purchase and register another clicker.

Academic conduct rules apply to clicker use. Students found to be involved in incidents of clicker sharing will have their course grade automatically lowered by one full letter grade.

Inclement Weather Policy: In the event that a class must be cancelled due to inclement weather, an email will be sent to your UO account and an announcement will be made on the CH 221 Canvas web site.

E-mail Policy: The University of Oregon has adopted university email addresses as an official means of communication. *It is your responsibility* to regularly check your UO email account in order to stay current with course communications.

Email is a very handy method for communicating with people, whether around the world or across campus. In some situations email protocol is not as formal as paper communications. In others, (academics, jobs, etc.) there are some expectations of protocol. When communicating with me (or any faculty member) by email, please adhere to the following guidelines:

- The subject line should indicate the course number and the nature and topic of the email.
- Spell correctly and use appropriate punctuation.
- Always sign your messages with first and last name. Unsigned messages will not receive a response.

You should always refer to your syllabus and/or the Blackboard web site for answers to your questions before sending an email inquiry. If you do not receive a timely response it is because the answer is readily available from one of those sources.

Classroom Decorum: The university asks that faculty outline basic expectations for classroom decorum. As a courtesy to other students, please refrain from talking during lectures unless it is part of a class activity. Turn cell phones off or place on silent ring. If you need to talk, either to a classmate or on a cell phone, please excuse yourself quietly with minimum disturbance and go outside to converse. Laptop computers and other electronic devices should not present a potential audible or visual distraction to others. If you have an irresistible need to electronically multitask, browse the web, answer email, update your friends, tweet, text, ... please leave the room for these activities.

Access and Accommodations: The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability related barriers to your participation. You are also encouraged to contact the Accessible Education Center (<http://aec.uoregon.edu>) in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.