CH142A Lecture Instructor: Prof. Thomas W. Shattuck, Keyes 213, x5759, tom.shattuck@colby.edu
CH142B Lecture Instructor: Prof. Rebecca R. Conry, Keyes 312, x5764, rebecca.conry@colby.edu

CH142A Web Site: [http://www.colby.edu/chemistry/CH142/CH142SecA.html](http://www.colby.edu/chemistry/CH142/CH142SecA.html) links to course materials and resources: homework, laboratory, sample exams, and more.

CH142B Web Site: [https://moodle.colby.edu/my/](https://moodle.colby.edu/my/) links to course materials and resources: homework, laboratory, course learning goals and slides by chapter, sample exams, your exam keys, and more.

**Required Materials:**
- Chemistry (5th Ed.) Olmstead and Williams. (textbook)
- Sapling Learning student account number for homework/electronic textbook
  - If you purchased this for CH141 last semester, it is still active (do not buy another one)
  - Otherwise, you may purchase access at [www.saplinglearning.com](http://www.saplinglearning.com)
- A bound, pre-numbered composition type book for lab
- A Sharp EL-501X calculator

**Course Content:** Some or all of textbook chapters 12, 14, 13, 15, 20, 16, 19, 17, 18, and 22. Keep up—class is fast-paced and material will build upon previous content. It will be difficult to catch up if you fall behind. The CH142 material is more complex than that for CH141 and is less likely to have been covered in your high school chemistry class. You may have to spend more time and effort for CH142 than you did in CH141 to receive the same grade!

**Course Grading:**

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>3 hour exams/HW**</td>
<td>18% each</td>
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<tr>
<td>Final exam (comprehensive)</td>
<td>26%</td>
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<tr>
<td>Laboratory</td>
<td>20%</td>
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- You must pass the laboratory to pass the class.
- The Colby affirmation will be upheld. Thus, any student found participating in academic dishonesty will be reported.

**Homework** will impact your exam grade positively or not at all. For each exam the recorded score will be the higher of: (1) 100% exam or (2) 80% of the exam plus 20% of the homework relevant to that exam (with a maximum of 20%). For example, a 70% exam + 100% homework yields a 76% exam score and a 70% exam + 0% homework gives a 70% exam score. Of course, doing homework will also help you learn the material to earn a higher exam grade. On the last page of each exam you will find your letter grade for that exam score. Depending on the difficulty of an exam, we may deem it appropriate to curve student grades on that exam (always done to raise student grades, never to lower them).

Homework is computer-based in Sapling Learning: [http://www.saplinglearning.com](http://www.saplinglearning.com). Daily assignments will typically take ≈ a half hour and be due most class day mornings. A longer, cumulative extra-credit problem set will be available for material leading up to each hour exam, which can make up for any missed problems on the daily homework sets (so no homework extensions will be granted). To do well on exams, you must understand the concepts and how to solve/answer numerical or conceptual problems using those concepts (which doesn’t mean memorizing how to do a few types of problems) without taking an excessive amount of time. To succeed in this course you should independently work through many problems without looking at the answer key until you have finished the problem. You should also complete many questions using pencil and paper and the required calculator, given that the exams are completed that way.
Anyone arriving late for an exam start time will forfeit the time already missed. Exams will be written to be finished in an hour; however, everyone may take up to two hours to complete the exam. Every hour exam will have a mix of numerical problems and conceptual questions. Constants with units will always be given, but only some equations will be provided (announced for each exam). Exam questions come from the lecture, text, homework, and/or laboratory material (which all cover the same content, but sometimes slightly differently). Exam problems will address the learning goals (found on the CH142B Web site). Each exam will be a mix of more challenging questions, medium-level ones, and easier ones.

Chemistry Department exam/attendance policy: Students are expected to take all exams at the time that they are scheduled, and there are NO MAKE-UP EXAMS. The grade for an unexcused missed exam is zero. If a student will be away for an official College activity, it is the responsibility of the student to let the professor know of the conflict, well in advance, so that arrangements can be made for the exam to be administered by a college official (such as a coach). In the event of a serious unexpected medical or family emergency, as soon as possible you must have your advising Dean contact your course instructor, who may then excuse you from the exam (note that only your course instructor has the authority to do so). You should expect, however, that only for extremely exceptional circumstances will you be allowed to miss an exam in any chemistry course, and you should expect to fail the course if you miss more than one exam in that term. Because subsequent topics in chemistry classes typically build upon previous course material, it becomes difficult to catch up if you fall behind. Therefore, students missing an exam in a chemistry course will receive an academic warning from the course instructor because of the potential for failure in the remaining portion of the course.

If at all possible, avoid missing an exam. Most students who miss an exam typically end up with a much lower grade in the class than they had previously attained in the class before missing the exam because it is challenging to both catch up and do well on topics that build on the material not yet mastered. Therefore, we would much rather that you make an attempt to study for and take the exam than to miss it. If you are dealing with a minor illness or family problem, you can tell us about your circumstances ahead of the exam impacted, and we will put a note with that exam score in our grade sheet. We will then take the fact that you were not at your best for that exam into account when assigning your course grade–as long as we can see you tried to do well. Under no circumstances will we do this for any student for more than one exam.

Sample Exams: A blank copy of sample exams and answer keys by each course instructor will be available on their CH142 Web site. Your exams will be different than the sample exams. Use the problems on the sample exams covering the same material covered in class to test your readiness in that area and to see the ways problems might be asked. Work out your own solutions in as close to exam conditions as possible then check your answers. You are welcome to come to office hours to get help with these problems, or you can ask questions about them at the question and answer sessions.

Students with a Learning Difference: Hour exam situations are already as open access as possible, so nothing need be done if your learning difference accommodations only call for extended time. However, if your learning difference requires other reasonable exam accommodations, you MUST follow the Colby Chemistry Department policy (http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/) to receive them. In addition, for the standardized American Chemical Society final exam, we need to have your documentation in order to give you additional time. Thus, you must bring a letter from the Dean of Student’s office to your instructor explaining that you have been diagnosed with a learning difference and detailing the recommended accommodations no later than a week before an exam.
Exam Question and Answer Sessions: Optional exam question and answer sessions will be held and announced before each hour exam. If you are uncomfortable asking a question in front of the class, you are welcome to drop your instructor a handwritten note or an e-mail message with your question(s) on it.

Exam Grading and Regrades: For calculational problems on exams, usually 1 point each is earned for the numerical answer, the units, and significant figures. The remaining points are given for the work leading up to the answer. Partial credit is usually given, so all work must be shown to earn full credit.

The graders occasionally make unintentional grading or addition mistakes. If you find such an error, you can turn in your exam for regrading. You have one week from the day exams are returned to turn in any regrade requests. To do so, do not change or write on your exam, but instead attach a note to your exam detailing which problem and exactly why you think you deserve more credit (i.e., explain your answer including what you did right and what you did wrong, remembering that sometimes a lack of credit reflects a difficulty in following your work). To help you, an exam key will be posted on the CH142B Web site as soon as possible after the exams are returned. Please do not ask your instructor in person whether or not more credit is deserved—if you really think you deserve more credit you can defend that assertion in writing.

Please avoid arguing over a few points because one or two points on an exam or even on every exam will NOT make a difference in your course grade. This is because we always automatically examine all student scores near a grade break to determine which course grade is most appropriate for each. We look for reasons to give a student with a borderline grade the higher grade. For instance, hour exam grade improvement, a much higher final exam grade, or significantly more than 100% on the homework will help.

Comprehensive Final: A standardized exam from the American Chemical Society for 2nd semester general chemistry is given during our assigned time, Sat., 5/14, 9 am-noon, with or without additional problems.

Academic Honesty: Working together in small groups to study for this class is encouraged, as such discussions are useful to generate ideas to solve problems and make learning more interesting. However, ALL materials that YOU submit for a grade must be uniquely the results of YOUR work only and allowed collaborations must be acknowledged within written assignments. This includes exams, pre-lab assignments, lab notebooks, laboratory reports, and homework problems. This is consistent with the Colby Chemistry Department dishonesty policies found at the following Web address:

Chemistry Help Center: Student tutors (usually chemistry majors) are available for you to drop in and see for help as needed from 7:30 - 9:30 PM in Keyes 104 Monday through Thursday.

Instructor Office Hours: Office hours will be announced for each instructor. During those times, you are invited to show up unannounced to ask CH141 and/or CH142 questions, etc. You are welcome to see either course instructor. We realize that the lecture and textbook cannot possibly answer all questions every student has, especially considering everyone has a different background entering the class, so you are encouraged to come see us to get your questions answered. In addition, with such a large class, this is the best way for your instructor to get to know you—so please drop by, introduce yourself, and get your questions answered. We enjoy interacting with you on a more personal level than lecture allows.

You can take your chances at finding one of us in our office with available time at other times than announced office hours. Some of the time you may catch one of us in and available, but at other times we may not be in or may ask you to make an appointment to return at a later time. You can help by asking as you enter if that instructor has the amount of time you think you will need at that time, or whether a later time should be arranged. This in no way implies that we don’t care to help you, only that you have come at a bad time (very busy with other classes and obligations, or when a time commitment is imminent).
Please do not leave if you arrive to find another CH142 student there (which typically happens only right before an exam). We usually invite everyone in and alternate questions because students often have the same questions, plus there is usually something everyone to learn on each question. The only time it is inappropriate to have a group session is when one of us is having a personal discussion with a student, which you can discern from the position of the office door. If the door is completely open, come on in without knocking. If it is mostly or completely closed during an office hour, a private conversation may be occurring, so please knock first and wait for “come in” before entering.

The most productive office visits are ones where you come with reasonably specific questions or problems to cover. Thus, “I need help with problem 5” or “could you explain oxidation numbers again” are most helpful. Identify questions on your lecture notes, chapter notes, and/or for homework (for instance, with a different colored pen or highlighter). We do not in any way look down upon any student for coming to see us. In fact, we will remember how hard you tried if you end up near a grade break and we are looking for reasons why you deserve the higher grade.

It is also very efficient to send an e-mail message asking to set up an appointment with your instructor. Please include in this message your open times for the next few days and an estimate of the amount of time needed to find a mutually agreeable time to meet as soon as is possible. The only time we do not make individual appointments is the last couple of days before an exam. However, during those days we always make ourselves available as much as we can for everyone in the class, including you.

Phone Calls/Electronic Mail: We try our best to respond to these timely, however, sometimes we will be slow in answering messages when we get busy or are out (we apologize in advance for this). We check e-mail regularly during the day at Colby and home unless we are away from a computer. We check our office phones for messages only when we are in our offices at Colby. We recommend asking only simple chemistry questions by e-mail or phone. For more complicated ones, we can more effectively help you in person. In addition, we don’t advise depending on these media for last-minute exam questions, as we cannot guarantee that we can respond in time.

Tutors: We are very glad that we have provided you with so many opportunities to get help for this course (instructor office hours, instructor question and answer sessions, plus the student-staffed help center). However, if you have used these opportunities extensively and still feel that you could benefit from a tutor for this class, contact Lisa Miller (lisa.miller@colby.edu or x5752) as early in the term as you are able.

Lecture: We will do the best we can with these 2.5 hours a week. In lecture your instructor’s role is perhaps best described as tour guide or coach. We will discuss the important material from each chapter, illustrate representative problem solutions, and give you hints. Since there is a serious time limit, we cannot do every possible kind of problem and cannot always make everything crystal clear to each of you, or teach you everything you need to know in lecture alone. In other words, you have to do more than just come to lecture to understand this material! Learning a new subject is just like learning to play a musical instrument or an unfamiliar sport. It involves not only watching/learning from someone that knows how to play, but it also involves a lot of practicing on your own (in this case textbook reading, homework, lab, etc.).

In addition, to get the most out of lecture, for most people it is best to read or at least skim the upcoming material before the lecture on it (the second time you are exposed to a subject always makes more sense than the first). Please also use the available extra help (described above) as you need it: question and answer sessions before exams, the Chemistry Help Center, and the instructor’s office hours. In all of these we will be better able to help you understand material that you do not quite get in lecture (after all, one lecture cannot always fit all, especially in larger classes where students have very different backgrounds) and/or during your studying. Please feel free to ask relevant questions in class as well.
The Colby Chemistry Department has a formal attendance policy at the following Web address: http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/

Your Professors are Human! We don’t always think of all possible interpretations for what we say and we do inadvertently make mistakes and/or misstatements. If we offend you in any way, please be assured that this was not intentional. However, if it occurs, please let us know in person, or by note (anonymous if you prefer) to keep us from doing it again. We will not necessarily know a comment is hurtful to you unless you tell us.

Slides: Any useful slides used in class that are not from your textbook will be put on your course Web site to refer back to later if you choose.

Chemical Trivia: For fun, we may include some "Chemical Trivia" in or before lecture. You will not be tested on this material. These little snapshots are included for a little variety and to show some cool and/or relevant aspects of chemistry that otherwise wouldn't be covered in the class. Suggested topics are welcome.

Laboratory: The best way to view the laboratory is not as a separate course from the class, rather as another way to learn the concepts–sometimes before they are covered in lecture and sometimes afterwards (either way, the second time should be clearer!). Further laboratory information, including the lab syllabus, is provided to you via the CH142 Web pages as well as during the lab periods.

Your instructors for this course have been and will be expending an incredible amount of time and effort to make this class as enjoyable and educational as they can make it.

We wish you the best!