

CHEM 167 | Chemistry for Engineering Students

4 credits

Prerequisites:

MATH 140 or high school equivalent and 1 year of high school chemistry or CHEM 50.

Instructor and Contact

Instructor: Cristina Bonaccorsi. **E-mail:** CHEM167QB@iastate.edu. **Phone:** email preferred.

Lecture: Monday, Wednesday, Friday in Troxel Hall.

Sections 18-34 at 12:05 PM – 12:55 PM. Sections 35-50 at 2:15 PM – 3:05 PM.

Recitation: Tuesday (check your schedule for time and location)

Office Hours

Cristina Bonaccorsi: 1:00 PM – 1:50 PM in Troxel Hall (east-side lobby on basement level). Option of virtual office hours available: join via Webex by following the link provided via email upon request.

Head TA: Tristen Taylor. **Office Hours:** Chemistry Help Center Wednesday at 10am.

Email contact: CHEM167QB@iastate.edu (not case sensitive).

Contacting the Instructors/Head TA: We encourage you to contact me or the Head TA whenever you need help with the course material or you have other questions or concerns related to the course.

Response time is 24 hours.

- **Use the Help Forum on the Canvas course page to ask questions/concerns about the course** (navigating Canvas, lecture videos, quizzes, exams, how to approach a homework problem, etc.)
- **Use email (CHEM167QB@iastate.edu) for questions/concerns that are personal in nature** (scheduling an appointment; SAAN, etc.)
 - **Add CHEM 167 AND the time of you lecture in the subject line!**
- **Tech Support Email:** Go to [Canvas Help](#) in this document for more information on finding help with Canvas.

Course Catalog Description

(4-0) Cr. 4. F.S.

Prereq: 1 year of high school chemistry or CHEM 50 and MATH 140 or high school equivalent.

Principles of chemistry and properties of matter explained in terms of modern chemical theory with emphasis on topics of general interest to the engineer. Only one of Chem 163, 167, 177, or 201 may count toward graduation. Mention whether the course meets international perspectives requirements.

Learning Outcomes

1. **By completing the course, the students will be able to interpret and explain** the connection between symbolic representations (the microscopic level) and the amounts of substance (the macroscopic level) when given a qualitative or quantitative problem involving a chemical system. To achieve this goal, students will learn about atoms, bonding, and chemical reactions.
2. **By completing the course, the students will be able to assess, describe, and ultimately predict** the chemical and physical properties of elements and compounds (gaseous, liquid, and solid materials). To achieve this goal, students will learn about structure, bonding, and inter-molecular interactions.
3. **By completing the course, the students will be able to recognize** the importance of energy in chemical and physical processes and will **assess** and **describe** the feasibility and energetic

implications of any process under specific conditions. Students will learn about energy and thermodynamics.

4. **By completing the course, the students will be able to evaluate** chemical reactivity kinetically and thermodynamically. The latter goal will culminate in the profound understanding of the fundamental concept of equilibrium.
5. **By completing the course, the students will be able to** make connections between topics seen within this course as well as between chemistry and other disciplines such as physics, natural sciences, engineering.

Course Format

Hybrid (in-person and online). Lectures and recitation sections are **in-person**. Canvas is used to deliver content and crucial information. The digital content includes the eBook and the online platform OWLv2 which is used for homework.

On Canvas, you can find a detailed schedule with the dates by which you are expected to complete the Modules and the corresponding assignments, including exams.

Recitations are led by a teaching assistant (TA) where you can ask questions, seek assistance with homework, tests, and worksheets.

Required Technology

1. A reliable Internet connection.
2. Access to Iowa State University computer system and your Learning Management System (Canvas etc.).
3. An internet-ready device for in-class quizzes (Top Hat).
4. Access to a computer with a microphone and audio capability.

Required Textbook and Supplies

- **Chemistry for Engineering Students**, 4th Edition - by Brown and Holme, Cengage. This is an eBook.
- **OWLv2** online homework.

Immediate Access Program

This course is enrolled in the Iowa State University Immediate Access Program. Immediate Access is a collaborative program where the University Book Store, faculty, and publisher have worked together to ensure access to Cengage Learning's "**CHEMISTRY F/ ENGINEERS+OWL V2**" courseware the first day of class at a reduced price compared to the national average. *The courseware is required to complete online homework assignments and includes access to the eBook.* Directions on how to access the courseware are located in our Canvas course.

For further questions about Immediate Access please email immediateaccess@iastate.edu.

- **Top Hat.** Top Hat is available to all Iowa State faculty, staff, and students, with no need to purchase an individual license. See the Top Hat section below for more details. Directions on how to get started with Top Hat are located in our Canvas course.
- A **scientific calculator** with basic functions including logarithms and exponential functions. The use of scientific/graphing calculators is permitted during tests (quizzes and exam), but students must not use the calculator for purposes other than calculations during the test (for example, do not store formulas and other information pertaining to the chemistry content on the device). Proctors reserve the right to inspect and confiscate the calculator. Spare calculators are provided during exams.

Cardstock Periodic Table

- Prior to the first exam, you will be issued a periodic table on card-stock paper in recitation. This periodic table is yours to use throughout the semester and during exams and recitation quizzes. You may add notes to the periodic table with one rule - it must be written in **non-erasable ink** (pen, marker). Instructors and TAs will make spot checks of these periodic tables throughout the semester. If you lose your periodic table, you will not receive a replacement. Each exam will contain a formula sheet with a periodic table and relevant equations, so losing the card stock version will only mean you lose access to your notes. So, don't lose your periodic table. ***Producing a replacement periodic table to subvert this rule constitutes academic misconduct.***

Library

A hard copy of our textbook is available at the [University Library](#).

Our library has many additional resources such as journal articles, e-books, journals, study rooms, up-to-date computers.

For more information, visit the Circulation Desk staff or contact them at (515) 294-3642 or circdesk@iastate.edu.

See also the library's [Distance Learning Support](#) guide for more information on access, how to find and search helpful databases, and how to get articles and books you need sent to you.

Assignments and Grading

- **Lecture quizzes (Top Hat)**. Click the **Top Hat 1.3** link in our Canvas course navigation menu to join the Top Hat course.
Top Hat is an in-class engagement tool that I will be using every lecture to facilitate your learning and to monitor your progress. Get it set up for this course before the first day of class and use it meaningfully every lecture. In addition to the pedagogical advantages of being engaged during class, the system is easy and fun to use. This being said, Top Hat is not going to be graded for credit.
See Canvas, Modules, Top Hat, for more information. Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in-app support button, or by calling 1-888-663-5491.
- **Homework**. OWL will be used for homework assignments. You must purchase access to OWL to receive credit on homework (it is part of the Immediate Access program); to login, follow the single sign on located on Canvas, Module. See Schedule and go to Canvas for exact dates.
Assignments are due on Sunday at 11:55pm. If a homework assignment is completed between Sunday 11:55pm and Monday 8:55 am following the due date, a **10% penalty** will be applied to the grade for that assignment. Homework sets are designed to help you master the topics: you have 4 attempts on each problem and feedback is provided to you; in addition, there is no time limit (except of course for the actual deadline). For example, you can open the assignment on Monday, work on two problems, go back each day after that and complete additional problems. Remember to submit only when you are all done! ***Homework is designed to help you master a topic before we move on to the next topic; thus, you must complete the work by the scheduled deadline.*** There are no exceptions to this policy and no extensions or make-ups for OWL assignments will be granted. At the end of the semester, **2 lowest scores will be dropped**, including zeros due to missed submissions. **Homework contributes 20% to your final grade.**
- **Recitations & recitation quizzes**: On Tuesdays, you will meet in smaller groups with a teaching assistant (TA). Recitations will be used to discuss questions, end-of-chapter problems, and material from the lectures or text. Graded quizzes and exams will be returned to you in recitation. A short 10-point quiz or worksheet will be given during recitation sessions. **Out of 15**

recitation quiz/worksheet scores, the best 10 will be counted. This grading policy gives flexibility to miss several recitations in case of conflicts or illness. In order for our teaching team to grade and return all graded quizzes in a timely manner, they need to be submitted as scheduled (in recitation); therefore, exceptions cannot be allowed. **Recitation quizzes contribute 20% to your final grade.**

- **Exams.** There will be 3 hour-exams on **Monday September 18, October 16, November 13 at 6:45 PM – 7:45 PM.** Location will be announced in class and on Canvas. Add these dates and times to your planner to avoid schedule conflicts. You will be assigned an exam location depending on your recitation section as soon as this information is available. Students are given instructions on how to seat in the classroom during the exam. Proctors are permitted by the instructors to request that students move to the seats in the front of the classroom at any time during the exam. This will not affect the exam score in any ways; however, should a student refuse to change seats, the instructor will be notified. **If you have a valid, serious reason to miss an hour exam, you need to immediately contact the instructor (not your TA).** You will be asked to drop the course if you miss more than one exam. Your graded hour exams will be returned in recitation the following week. Our exams are in the multiple-choice format on bubble sheet. Any request for a re-grade must be clearly given in writing on the back of the exam before leaving the recitation room – special instructions for re-grade requests will be given after the first exam. Information specific to each exam will be communicated via email and on Canvas. **Hour-exams contribute 40% to your final grade.**
- **Final Exam.** Final examinations will be held December 11-14 (Mon-Thur). The date and time of the CHEM 167 final exam is determined by the Registrar's Office and will be announced through Canvas as soon as it is available. Do not schedule any travel until you have all your final exam dates confirmed. Alternative final exam times will only be scheduled for students with a conflicting final exam time or those with three or more finals scheduled for the same day. There will be no exceptions. The last day to request an alternative time for the final exam is Friday December 1 at 5 pm. The university [final examinations policy](#) will be followed strictly. Our final exam will be a 2-hour, comprehensive exam and it will be in the multiple-choice format on bubble sheet. **The final exam contributes 20% to your final grade.**

Grade Distribution

Assessments	Percentage
Recitation quizzes	20%
Homework (OWL)	20%
Hour-Exams	40%
Final Exam	20%
Total	100%

Grading Scale

Letter Grade	Range	Letter Grade	Range
A	93.00-100	A-	90.00-92.99
B+	87.00-89.99	B	83.00-86.99
B-	80.00-82.99	C+	77.00-79.99
C	73.00-76.99	C-	70.00-72.99
D+	67.00-69.99	D	63.00-66.99
D-	60.00-62.99	F	59.99 and below

The final grade distribution will be consistent with prior semesters; the instructors reserve the right to adjust the grading scale. Important: final grades are based solely on graded work and are NOT negotiable; no single student will be offered make-up or extra credit points.

Course Policies

Late or missing assignments

Lecture quizzes, homework, and recitation quizzes assignments are designed to help you master a topic before we move on to the next topic; thus, **you must complete the work by the scheduled deadline**. Late submissions are accepted on OWL (see above). The grading policies outlined for recitation quizzes and homework assignments give significant flexibility for you to miss a lecture, recitation, or assignment without hurting your overall grade. These policies are designed to allow for absences or missed assignments due to illness, emergency, or other unavoidable conflict. This said, please contact your instructor and/or TA if you would like to discuss your absence. You must contact us as soon as possible, see next section.

Deadline extensions

Deadlines are firm. This said, communication is important: if you know you will be unable to complete an assignment because of illness or another emergency, contact your instructor in advance. If the illness or other emergency happens on the day the assignment is due, you must contact the instructor ASAP. Missing an exam will affect your grade significantly: if you have a valid, serious reason to miss an hour exam, you need to **immediately** contact the instructor (not your TA). You will be asked to drop the course if you miss more than one exam.

Cheating and plagiarism

Please review the information under Academic Misconduct

Expected online or classroom behaviors

- All communication within the course should adhere to university standards of [Netiquette at ISU](#). Specifically, communication should be scholarly, respectful, professional, and polite.
- You are expected to follow [ISU's Principles of Community](#).
- You may disagree with other students, but such disagreements need to be based upon facts and documentation. It is my goal to promote an atmosphere of mutual respect in our interactions. Please contact me if you have suggestions for improving the interactions in this course.
- Professional and respectful tone and civility are used in communicating with fellow learners and the instructor, whether the communication is by electronic means or by phone or face-to-face.
- Video interactions reflect a respectful tone in verbal communications and body language.
- Use correct spelling and grammar.

Ground rules for the exams and recitation quizzes

You must work independently.

You are permitted use the following authorized resources to complete the exams:

- Scientific or graphing calculator.
- Paper and pens/pencils (any work on scratch paper will not be graded.)
- The issued card-stock periodic table.

You are NOT permitted to do the following:

- You may NOT communicate with anyone else about the exam.
- You may NOT have anything else but the items mentioned above on your desk.
- You may NOT use any electronic devices (except for a calculator) and notes/textbooks.
- You may not use any other resources but your mind!

We actively monitor for illicit behavior.

Ground rules for homework (HW) assignments

[Exams and recitation quizzes have stricter rules, see the corresponding part above]

You are permitted use the following authorized resources to complete HW:

- Scientific or graphing calculator, Excel (for calculations.)
- Paper and pens/pencils (any work on scratch paper will not be graded.)
- Your course notes and book.
- CHEM 167 Canvas course content and any links to external webpages that are provided therein.
- You may post questions about HW on the Help Forum and/or ask your TA; you will not receive a direct answer (e.g. the solution to the problem) but you will be advised on how to proceed in the solution.
- Group work is encouraged at this stage in your learning, but you must also practice solving independently.

You are NOT permitted to do the following:

- You may NOT have someone else solve the questions for you.
- You may NOT post and/or consult unauthorized aids, including paid-for subscriptions to Chegg, Scribd, or tutoring services.
- You may NOT search the questions in a search engine (e.g. Google).

Scores

Recitation quizzes are graded manually by the TA and the scores posted on Canvas within one week. OWL (homework) is automatically graded directly on the OWL site and the scores are synched into Canvas periodically. Errors may occur: OWL may experience a glitch and not import the correct score; a grader may make a grading mistake. If you believe that an error occurred, you must inform the instructor and/or TA immediately, and by one week after the assignment due date. It is the student's responsibility to check grades on Canvas.

Final Grades

Final grades are based solely on graded work and are NOT negotiable; **no single student will be offered make-up assignments, retakes, or extra credit points.**

Conflict resolution

If you have questions or concerns about our course policies and/or if you have a problem in class or recitation, this is the recommended course of action: you should promptly write an email or speak in person detailing your concerns to your instructor, starting with the TA; if the problem is not solved, contact the course instructor; if a resolution cannot be reached, the professor will refer you to the proper channels for [filing a complaint](#).

Many issues can be resolved if a student makes an appointment with a faculty or staff member and communicates their concerns in person.

[Visit ISU Catalog website for the grading policies regarding incomplete marks \(I-mark\)](#)

ISU Academic Calendar

List important dates (or include a link to the ISU Academic Calendar) such as last drop date, registration dates for the next semester. Visit the ISU Academic Calendar for detailed information

Additional Learner-Centered Information

- **Take time to familiarize yourself** with the course structure and layout in the learning management system being used such as Canvas or other technology used in the course.
- **Read** the essential documents – course syllabus/course schedule.

- **Identify and establish** the **communication channels** provided – Help Forums/online meetings/Email/groups discussion forums
- **Confirm technical requirements** –so that you can access all the materials
- Be patient and **respectful of response time** mentioned.
- **Plan your time** – have a personal schedule, a consistent study time and stay organized. **DO NOT WAIT UNTIL THE LAST MOMENT TO WORK ON YOUR ASSIGNMENTS.**
- **Make connections** with fellow classmates and the instructor.
- **Ask Questions** – Don't wait. Ask questions regarding expectations/content/policies. Follow the mentioned protocols for the course.
- Become familiar with [the way the To Do list works in Canvas](#) to help you stay organized.
- **Log-in to the course at least 3 times** in a day.

Academic Misconduct

All acts of dishonesty in any work constitute academic misconduct. Online courses are no exception. The Student Disciplinary Regulations (<http://policy.iastate.edu/policy/SDR>) will be followed in the event of academic misconduct. Depending on the act, a student could receive an F grade on the test/assignment, F grade for the course, and could be suspended or expelled from the University. Academic misconduct includes all acts of dishonesty in any academically related matter and any knowing attempt to help another student commit an act of academic dishonesty. See more information at [Academic/Research Misconduct for Students](#). No matter the allegations, the instructors (TA and professors) are required to submit the case to the Dean of Students Office. Academic dishonesty includes, but is not limited to each of the following acts when performed in any type of academic or academically related matter, exercise, or activity: obtaining or use of unauthorized information, misrepresentation, falsification or fabrication of information, plagiarism. A complete list and explanation of each act is listed on this [page](#).

Course-specific information

In addition to the general guidelines above, the following constitutes academic misconduct: copying or sharing answers on tests or assignments, consulting unauthorized resources during tests or assignments (e.g., phone, tablet, computer, notes, book, etc.), not following the guidelines regarding the card-stock periodic table, having someone else do your academic work, altering graded work prior to submitting for a regrade request, and in particular, tempering with the graded exam bubble sheet.

University Policies

Accommodations

Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact your instructor to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with your instructor, you will need to obtain a SAN form with recommendations for accommodations from the [Student Accessibility Services](#) located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email accessibility@iastate.edu. Retroactive requests for accommodations will not be honored.

Religious Accommodation

Iowa State University welcomes diversity of religious beliefs and practices, recognizing the contributions differing experiences and viewpoints can bring to the community. There may be times when an academic requirement conflicts with religious observances and practices. If that happens, students may request the reasonable accommodation for religious practices. In all cases, you must put your request in writing. The instructor will review the situation in an effort to provide a reasonable accommodation, when possible, to

do so without fundamentally altering a course. For students, you should first discuss the conflict and your requested accommodation with your professor at the earliest possible time. You or your instructor may also seek assistance from the [Dean of Students Office](#) at 515-294-1020 or the [Office of Equal Opportunity](#) at 515-294-7612.

Harassment and Discrimination

Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, [Student Assistance](#) at 515-294-1020 or email studentassistance@iastate.edu, or the [Office of Equal Opportunity and Compliance](#) at 515-294-7612.

Accessibility Statement

Iowa State University is committed to assuring that all educational activities are free from discrimination and harassment based on disability status. Students requesting accommodations for a documented disability are required to work directly with staff in Student Accessibility Services (SAS) to establish eligibility and learn about related processes before accommodations will be identified. After eligibility is established, SAS staff will create and issue a Notification Letter for each course listing approved reasonable accommodations. This document will be made available to the student and instructor either electronically or in hard-copy every semester. Students and instructors are encouraged to review contents of the Notification Letters as early in the semester as possible to identify a specific, timely plan to deliver/receive the indicated accommodations. Reasonable accommodations are not retroactive in nature and are not intended to be an unfair advantage. Additional information or assistance is available online at www.sas.dso.iastate.edu, by contacting SAS staff by email at accessibility@iastate.edu, or by calling 515-294-7220. Student Accessibility Services is a unit in the Dean of Students Office located at 1076 Student Services Building.

Free Expression

Iowa State University supports and upholds the First Amendment protection of [freedom of speech](#) and the principle of [academic freedom](#) in order to foster a learning environment where open inquiry and the vigorous debate of a diversity of ideas are encouraged. Students will not be penalized for the content or viewpoints of their speech as long as student expression in a class context is germane to the subject matter of the class and conveyed in an appropriate manner.

Prep Week

This class follows the Iowa State University Prep Week policy as noted in section 10.6.4 of the [Faculty Handbook](#).

Public Health

If you are not feeling well, you should stay home and focus on your health. Should you miss class due to illness, it is your responsibility to work with your instructor to arrange for accommodations and to make up coursework, as consistent with the instructor's attendance policy.

You may choose to wear a face mask and/or receive the COVID-19 vaccine and boosters, as well as other vaccines such as influenza, but those options are not required. Visit the [Thielen Student Health Center](#) for more information and resources. Other wellbeing resources for students are available at: <https://www.cyclonehealth.iastate.edu/wellbeing-resources/>

Public health information for the campus community continues to be available on [Iowa State's public health](#) website.

Health and Wellness

- **Iowa State University is committed to proactively facilitating all students' well-being.** We welcome and encourage students to contact the following on-campus services for their physical, intellectual, occupational, spiritual, environmental, financial, social, and/or emotional needs:
 - Student Wellness call 515-294-1099 or via website (<http://studentwellness.iastate.edu>);
 - Thielen Student Health Center call 515-294-5801 (24/7 Medical Advice) or via website (<http://www.cyclonehealth.org>);
 - Student Counseling Services call 515-294-5056 or via website (<https://counseling.iastate.edu>);
 - Recreation Services call 515-294-4980 or via website (<http://recservices.iastate.edu>).
 - Students dealing with heightened feelings of sadness or hopelessness, thoughts of harm or suicide, or increased anxiety may contact the ISU Crisis Text Line (Text ISU to 741-741) or contact ISU Police Department 515-294-4428.
- **Face Masks:** faculty, staff, students, and visitors to campus may choose to wear or not wear a face mask anywhere they deem appropriate.
- **Vaccinations:** Getting the COVID-19 and flu vaccines is the best way to protect your physical health and mitigate the spread of the virus to others (see sections above).
- **Basic needs.** To learn effectively, you must have basic security: a roof over your head along with a reliable place to sleep and enough food to eat (view the [Food Security at ISU Student Wellness page](#)). If you're having trouble with any of those things, please talk with me or the [Dean of Students Office](#) (email studentassistance@iastate.edu, phone 515-294-1020). Together we can work to meet those needs.
- **Responsible Employee:** Iowa State University is committed to creating an educational, work, living, and campus environment that is free from all forms of sexual harassment, sexual assault, dating violence, domestic violence, stalking, and unlawful discrimination and harassment on the basis of protected class. As a responsible employee, I am responsible for reporting all incidents of prohibited sexual harassment, including sexual assault, stalking, and dating and domestic violence, to the university's Title IX coordinator. Students can choose to discuss their experiences confidentially with the following resources: ACCESS (Assault Care Center Extending Shelter and Support) at 515-292-0500; ISU Student Counseling Services at 515-294-5056; and Thielen Student Health Center at 515-294-5801.
- **Green Dot Project:** A green dot is any choice, behavior, word or attitude that promotes everyone's safety and communicates utter intolerance for power-based personal violence in our Iowa State University community. A green dot is anything you do to make our community safer. What is your Green Dot? Visit the Green Dot – Student Wellness website (<http://www.studentwellness.iastate.edu/greendot/>).

Canvas for Students at ISU

Getting Started

1. Be sure to have an ISU NetID. If you do not, please visit Passwords and Accounts (<https://www.it.iastate.edu/services/accounts>)
2. Login to [Canvas](#) with your ISU NetID and password and look for your course for this semester.

Canvas Help

General help with Canvas can be found under the Help link in the global navigation menu on the left side of your Canvas page. You will find:

- [Canvas Live Chat – 24/7 live chat with Canvas specialists](#)
- [Canvas Guides – a repository of how-to's](#)
- [Ask the Canvas Community-Online support forum for canvas users. Log in using ISU credentials.](#)
- ISU Canvas Support Line: Call 515 294 4000, press 2 and then press 1. [Hours of operation.](#)
- Go to [Lynda.com](#) and log in with your ISU credentials. Search for the desired tutorial.

Basic Troubleshooting (if Canvas is not working)

- Username/Password not working?
 - The login information (username and password) for Canvas is the same as for your ISU email account.
 - For help with Username and Password, please visit [University Accounts](#) or contact Solution Center at 515-294-4000 or solution@iastate.edu.
- If you get an error message, check for Browser and Java Issues on your computer.
- If you are unable to access course content or activities (e.g., Tests, Discussions, Assignments, etc.), contact your instructor.
- Check general [Technology Support for Students](#)

Honors

Taking CHEM 167 for Honors Credit

Students in the Honors Program may contract an Honors Component within CHEM 167. You may view the established requirements on Canvas. If you decide to proceed, you must follow these steps:

- 1) Go to <https://www.honors.iastate.edu/program/uhp/courses>, scroll down to “2. Contracting an Honors Component within a regular class” and to **Standing contracts**.
- 2) Click on “Online Honors Credit Contract” and follow the instructions to enroll.
- 3) Write an email to chem167qb@iastate.edu to confirm your enrollment.
- 4) Further instructions will come from Dr. Cristina Bonaccorsi (cbonacco@iastate.edu)

Please note: your instructor does not sign a physical form.