CHM 11600 – General Chemistry II

CRN: 10830

Lecture: M, T, W, Th 11-11:50am, synchronous

Recitation: M/W or T/Th, synchronous

Laboratory: Online, asynchronous

Credit Hours: 4.00

Prerequisites: Undergraduate level CHM 11200 Minimum Grade of B or Undergraduate level CHM 11500 Minimum Grade of D or Undergraduate level CHM 12500 Minimum Grade of D or Undergraduate level CHM 10901 Minimum Grade of D or Undergraduate level CHM 12901 Minimum Grade of D or Undergraduate level CHM 12300 Minimum Grade of D or Undergraduate level CHM 13500 Minimum Grade of D or (Undergraduate level CHEM C1050 Minimum Grade of D and Undergraduate level CHEM C1250 Minimum Grade of D) or (Undergraduate level CHEM C1010 Minimum Grade of D and Undergraduate level CHEM C1210 Minimum Grade of D)

Instructor: Dr. Hannah Starr
starrh@purdue.edu

Virtual Instructor Office Hours and Problem-Solving via Zoom: Weekly problem-solving sessions for extra practice with Dr. Starr will be on Mondays from 12:00pm-1:00pm on Zoom. These sessions will NOT be recorded. Slides with the practice problems and answers (but no solutions) will be posted on Brightspace. Additionally, Dr. Starr will be available from 9:30am-10:30am on Wednesdays for any questions. Please direct lab-related questions to the lab TAs during their office hours.

TAs:
Lab TAs:
Laurance Cain (cain16@purdue.edu)
Stephanie Barrios (barrios6@purdue.edu)
Charles Enlow (cenlow@purdue.edu)
Zhichen Ma (ma778@purdue.edu)

Recitation TAs:
Khalil Castillo-Aponte (casti101@purdue.edu)
Eli Zuercher (eczuerch@purdue.edu)
Virtual TA office hours via Zoom as posted on Brightspace

**Recitation:** Recitations are synchronous and meet according to your assigned time. Recitations will not be recorded. Recitation worksheets will be due on the days you are assigned to have recitation (more on that later) and can be submitted even if you have to miss recitation.

**General Chemistry Office, BRWN 1144, 765-494-5250**  
Marlene Miller ([marlenem@purdue.edu](mailto:marlenem@purdue.edu)), Administrative Assistant  
Melissa Roadruck ([melissa@purdue.edu](mailto:melissa@purdue.edu)), Administrative Assistant

The General Chemistry office handles ALL the administrative (non-chemistry) details associated with the course. Direct all non-chemistry questions about the course to this office.

**Communication**  
To avoid wasted time and duplicated effort, please do not email multiple course or university personnel *individually* about the same issue, rather send *one* email addressed to multiple people. Allow up to two business days (M-F, 8am-5pm) for a response from your instructor or TA.

**Course Description**  
CHM 11600 is a continuation of CHM 11500 (General Chemistry I). Topics include solutions, quantitative equilibria in aqueous solution, introductory thermodynamics, oxidation-reduction and electrochemistry, chemical kinetics, qualitative analysis, further descriptive chemistry of metals and nonmetals

**Learning Outcomes**  
By the end of the course, you will be able to:  
1. Use theory to understand/predict experimental observations.  
2. Demonstrate an understanding of the physical properties and a molecular understanding of chemical reactivity and materials.  
3. Document scientific information and experimental data and write scientific reports, with graphical presentation of data.

The course has been designed and structured so that in addition to the treatment of the concepts and topics listed above, there is a simultaneous emphasis on development of problem-solving skills. Online laboratories are scheduled weekly and offer an opportunity to reinforce and extend what is discussed in lecture, explore new topics, and to develop your knowledge of chemistry laboratory skills.

The Chemistry 11600 team is committed and focused on helping you learn chemistry. Please read on to learn about the required materials, lecture and recitation schedule, recommended ways to study, lab policies, grading, and other policies and procedures.
**Foundational Core**
CHM 11600 meets the science requirement of the university’s foundational core.

**Course Information**
Brightspace: [https://purdue.brightspace.com/d2l/login](https://purdue.brightspace.com/d2l/login) is the primary course management site for the course. Assignments, checklists, links to lectures and labs, announcements, learning objectives, grades, and other course information will be posted on Brightspace. Be sure to check Brightspace frequently and sign up for notifications. All lectures and office hours will be conducted using Zoom. Exams, problem sets, and recitation worksheets will be collected on Gradescope.

**Weekly Assignments**
During most weeks, you will have the following assignments:

<table>
<thead>
<tr>
<th>Item</th>
<th>Platform</th>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prelab Quiz</td>
<td>Brightspace</td>
<td>Sundays and Wednesdays</td>
<td>Due 11:59pm</td>
</tr>
<tr>
<td>Homework</td>
<td>Achieve</td>
<td>Thursdays</td>
<td>Due 11:59pm</td>
</tr>
<tr>
<td>Problem Set</td>
<td>Gradescope</td>
<td>Fridays*</td>
<td>Due 11:59pm</td>
</tr>
<tr>
<td>Lab Report</td>
<td>Brightspace</td>
<td>Tuesdays/Fridays</td>
<td>Due 11:59pm</td>
</tr>
<tr>
<td>Recitation Participation Assignment</td>
<td>Gradescope</td>
<td>M/W or T/Th depending on your schedule</td>
<td>Due 11:59pm</td>
</tr>
</tbody>
</table>

*Due Wednesdays on midterm weeks.

**Required Materials**

**Textbook:** The textbook used in CHM 11600 is *Chemistry: The Molecular Nature of Matter and Change*, 9th edition, by Silberberg and Amateis. There are several options available for purchasing a paper and/or electronic version of the book, including purchasing a loose-leaf version with eBook directly from McGraw-Hill for $55. See Brightspace for further information.

**Achieve:** In CHM 11600, you are required to complete homework online using the Macmillan Achieve program. You can purchase instant access via the link on Brightspace or you can purchase a code from a local bookstore that you can then redeem via the link on Brightspace.

**Office 365** You can download the Teams/OneNote programs for free. Go to [https://www.itap.purdue.edu/shopping/software/product/office365.html](https://www.itap.purdue.edu/shopping/software/product/office365.html) and log in using your Purdue account.

**Digital Materials Charge**
Students enrolled in CHM 11600 must purchase digital materials for lab ($20). The materials will be released online on a real-time (approximately weekly) basis during the Summer 2023 semester. You will purchase access to the digital materials via a Purdue Online link ([http://www.eventreg.purdue.edu/online/CHMSummer116](http://www.eventreg.purdue.edu/online/CHMSummer116)). Payment is due by June 19, 2023.
**Mental Health**

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at 765-494-6995 and [http://www.purdue.edu/caps/](http://www.purdue.edu/caps/) during and after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack, [https://purdue.welltrack.com/](https://purdue.welltrack.com/). Sign in and find information and tools at your fingertips, available to you at any time.

If you need support and information about options and resources, please see the Office of the Dean of Students, [http://www.purdue.edu/odos](http://www.purdue.edu/odos), for walk-in hours (M - F, 8 am - 5 pm).

If you find yourself struggling to find a healthy balance between academics, social life, stress, etc. sign up for free one-on-one virtual or in-person sessions with a Purdue Wellness Coach at RecWell. Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is completely free and can be done on BoilerConnect. If you have any questions, please contact Purdue Wellness at evans240@purdue.edu.

**Basic Needs Security**

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday. Considering the significant disruptions caused by the current global crisis as it related to COVID-19, students may submit requests for emergency assistance from the Critical Needs Fund ([https://www.purdue.edu/odos/resources/critical-need-fund.html](https://www.purdue.edu/odos/resources/critical-need-fund.html)).

**Diversity Statement**

We believe every student in this course has something of value to contribute. Please take care to respect the different experiences, beliefs and values expressed by students and staff involved in this course. We support Purdue's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, countries of origin, disabilities, education, ethnicities, family status, genders, military experiences, political views, races, religions, sexual orientations, socioeconomic status, and work experiences. See: [http://www.purdue.edu/diversity-inclusion/](http://www.purdue.edu/diversity-inclusion/)

I am always open to suggestions for how to improve inclusion in our course. Feel free to contact me at any time if you are experiencing a barrier for yourself or a peer that is preventing you from full participation. This could be a physical barrier such as access to technology or a personal situation.

I encourage you to find ways to support each other. This may be in the form of study groups or any other opportunities to get to know your peers. Everyone has something to contribute, but your participation is necessary and it is important we do this together.

**Disability Accommodations**

If you require accommodations to access course activities or materials, the accommodations must be described and approved by the Disability Resource Center, Young Hall Room 830, 302 Wood Street, 765-494-1247, [www.purdue.edu/drc](http://www.purdue.edu/drc). To implement accommodations, you must
follow the instructions provided by the Disability Resource Center, in addition to doing the following.

Within the first two (2) weeks of the summer session or within one week of the date of the letter, you are required to (1) electronically share a copy of your letter with the General Chemistry office (genchem@purdue.edu) or (2) schedule an appointment via email (genchem@purdue.edu) or (3) take a copy of your letter to the General Chemistry office (BROWN 1144) during walk-in hours to discuss your accommodations. *Implementation of accommodations may not be possible if insufficient notification is given.*

**Emergencies**

In the event of a major campus emergency, course requirements, deadlines, and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor’s control. Relevant changes to CHM 11600 will be posted on Brightspace and shared via announcements and email.

You are expected to read your Purdue email on a frequent basis.

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**Purdue’s Honor Pledge**

“As a Boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue.”

https://www.purdue.edu/provost/teachinglearning/honor-pledge.html

**Academic Integrity**

All students are expected to be familiar with Purdue’s policies on academic integrity (https://www.purdue.edu/odos/academic-integrity/).

“Dishonesty in connection with any University activity may result in informal action or disciplinary sanctions. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty. The commitment of acts of cheating, lying, stealing, and deceit in any of their diverse forms (such as the use of ghost-written papers, the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest.” *From University Senate Document 72-18.*

In CHM 11600, academic integrity means “doing your own work” at all times. Discussion of chemical concepts is encouraged but sharing your answers and work on social media for the express purpose of letting other students copy it is not acceptable. Such a use of technology does not help you learn the material and is considered academic dishonesty.

Online exams in CHM 11600 are open book and open note, however all collaboration with others (such as Group Me, Zoom, discussion boards, text, in-person, etc.) during an exam is strictly prohibited.
Using online resources such as Chegg to gain answers to any graded assignment (including homework, labs, problem sets and exams) is not allowed. Posting course materials to websites is a violation of copyright laws and is not allowed. The CHM 11600 instructors can obtain user information from Chegg and other sites when inappropriate course material is posted. This information will be investigated.

Working together is allowed on lab reports and problem sets; however, your answers must be in your own words and show your own work. All reports will be analyzed with Turnitin (a plagiarism checker), and students with closely matching reports will be investigated. In lab reports, you must cite any sources (including the lab manual) used for your answers. Copying text word-for-word from the lab manual/instructions is prohibited and will receive no credit. Using ChatGPT or any other AI program to generate answers is not allowed and violates academic integrity policies.

Consequences of academic dishonesty include receiving a lower or failing grade for an assignment, being required to repeat the assignment, receiving a lower or failing grade for the course and/or dismissal from the University. All incidents of academic integrity are referred to the Office of the Dean of Students. A student accused of academic dishonesty will be afforded due process as defined by Purdue University procedures.

This course packet is a contract between CHM 11600 students and instructors. If a student violates the contract by committing an act of academic dishonesty, the instructor reserves the right to alter the terms of the contract (including grading policies) at his/her discretion.

Students who observe an issue of academic integrity can report it to the Office of the Dean of Students (https://www.purdue.edu/odos/ - use the General Incident Report to report anonymously), call 765-494-8778 or email integrity@purdue.edu.

**Overview of CHM 11600 Activities and Policies**

**How to Study for CHM 11600**

It will take you at least two hours on your own for every hour we spend online or in class in order to study and learn the material. This means you will spend about 8-12 hours of distraction-free studying and working with chemistry each week. You may spend this time reviewing and annotating your lecture notes, reading the text, doing homework, working practice problems, studying for quizzes, or other things. You may find yourself spending more than 8-12 hours per week if your math skills need improvement or if it has been a few years since you took a chemistry course. If you are committed to your goals and dreams, then dedicate yourself to spending the necessary time to perform well.

**Before Lecture**

- Review your notes from the previous lecture
- Review the assigned reading and read the sample problems within the assigned
section of the textbook

**Use the textbook in ways that work best for you.**

- Use the textbook as a reference when you study your lecture notes. Fill in any gaps and correct any information.
- Processing technical information will be more effective in the absence of Netflix, TVs, radios, headphones, etc. Turn your phone on silent and set it aside.
- Read the textbook in short “chunks” and take time to reflect on the information presented. Make sure you understand the material presented in a section before moving to the next section.
- Try the problems in the book *without* looking at the solutions! If you have understood what you have read, then you should be able to do the problems. First, cover the solution and try the problem. Second, quickly look at the answer to see if you are correct. If your answer is incorrect, try re-reading the section to see if you missed anything. Third, look at your work again to find your mistake. Ask questions in office hours or to your peers to see if you can figure out how to solve the question without turning to the solution if you are still struggling. The key is to force yourself to recall and apply material.

**During Lecture**

- Take notes!
- Write down each step of every problem or example even if you do not understand the step. You can always ask about it later.
- Try to answer all the questions and work all the problems presented.
- Write a question mark next to things you do not understand so you can return to them after class.
- Use shorthand or abbreviations so that you can write quickly, but understandably.
- Turn off distractions (i.e. Netflix, social media, etc.).

**After Lecture**

- Review your notes while things are still fresh in your mind.
- Listen to the lecture recording if you missed something.
- Attend office hours to ask questions and get help.
- Attend problem-solving for extra practice with the instructor.
- Never miss lecture. Chemistry is cumulative. What is presented tomorrow depends on your knowledge of what was covered today. Attending lecture synchronously is HIGHLY recommended. If you must miss a lecture, make sure you watch the recording the same day so you do not get behind.

**When should I do the homework?**

- You should be doing some chemistry every single day. If you have completed the assigned homework, solve problems in the textbook.
- Review your class notes and the assigned pages in the textbook *before* you attempt any of your homework problems.
• No extensions will be given on homework assignments, so be sure to stay on top of deadlines.

**Practice, Practice, Practice**
• Work additional problems at the end of each chapter that were not assigned as homework.
• Ask yourself what are the other ways a question you just solved could be asked. For example, could we ask about a different variable or ask you to go backwards? This will help limit surprises on exams.

**Sources of Help**
There are several free sources of help for CHM 11600 students. See the resources section on the course Brightspace page for details. Each TA will hold office hours on Zoom each week at regularly scheduled times. You can attend the office hours of any TA.

Supplemental Instruction (SI, [www.purdue.edu/SI](http://www.purdue.edu/SI)) is offered for CHM 11600. Please visit Brightspace to access information about connecting with the SI leader.

**Reading Assignments and Learning Objectives**
• Reading assignments are listed at the end of this packet with the schedule and will also be posted on Brightspace. Reviewing the assigned material prior to lecture and laboratory is recommended. Some material will not be covered in depth in lecture, but you are still responsible for all assigned material.
• Learning objectives list the concepts you are expected to understand and the skills you are expected to demonstrate for each topic covered in the course.

**Lectures**
• CHM 11600 lectures will be broadcast live and recorded. Links to the recordings will be available on Brightspace.
• If you have questions about something discussed in lecture, please ask them in office hours or recitation.
• Attendance at lecture is highly recommended, but not mandatory with the exception of exam days.

**Recitation**
• Twice weekly recitation provides the opportunity for you to ask questions and work problems with your fellow students and TA. Your questions are always the first agenda item, so come prepared.
• Recitations will be held synchronously and will not be recorded.
• Completion of a short recitation participation assignment is required every day you have recitation. If you are scheduled for recitation MW, you will have a recitation participation assignment due at 11:59pm M and W. If you are scheduled for a TTh recitation, you will have a recitation participation assignment due at 11:59pm on T and Th. These assignments will be available starting at 8:00am the morning of your scheduled recitation on Gradescope.
• Each recitation assignment is worth 5 points. To earn credit, you must complete the entire assignment and submit your own work before the deadline. Failure to complete the entire assignment (you must show your work) or a late submission will result in a score of 0.
• If you miss recitation, you will still have the opportunity to submit the recitation worksheet, but you will not have the benefit of being able to ask the TA for help.
• One recitation worksheet grade will be dropped, so you can miss one recitation assignment without penalty.
• Note that it is not your TA’s responsibility to provide you with answers to homework, pre-lab, or lab report questions. Rather, they are expected to guide you to the correct solutions, help you identify mistakes, and add details to help you further understand concepts.

Homework (Achieve)
• You will have a weekly homework assignment on the Achieve platform, due on Thursdays by 11:59pm.
• You will have 5 attempts for each question in an assignment. There is no penalty for failed attempts.
• Each homework assignment is worth 15 points. The one lowest homework score will be dropped at the end of the session.
• No time extensions are possible for any homework assignments. Allow plenty of time to do your homework and get the highest possible score. If you wait until the last minute, you risk the possibility of technical difficulties, illness, or other situations interfering with your success.
• For help with technical issues, contact Achieve customer service at 1-800-936-6899 or use the online form at https://macmillan.force.com/macmillanlearning/s/contactsupport. Chrome is the recommended browser for Achieve.

Laboratory
Laboratory projects are an integral part of CHM 11600 and are an opportunity for you to experience the chemical concepts discussed in lecture in a practical way. Digital lab materials (instructions, materials, and reports) will be provided on Brightspace. Pre-lab quizzes will be completed and lab reports will be submitted and graded on Brightspace.

Laboratory Attendance and Participation
• Labs will be completed asynchronously.
• Please direct all lab-related questions to the 4 lab TAs during their office hours.

Pre-Lab Quizzes
• The purpose of the pre-lab quizzes on Brightspace is to ensure that you have adequately prepared for the lab by reviewing the concepts and procedure.
• You have one, timed (10 minute) attempt for each quiz. The quiz will automatically submit after 10 minutes. Do not click “begin” until you are ready to take the quiz because you cannot pause, exit, cancel, resume later, etc.
• For the best chance at success, take the pre-lab quiz after reading the lab
materials and completing the prelab practice questions. You are encouraged to use the digital lab materials and your work for the prelab practice questions while taking the quiz.

- Quizzes are *individual* assignments. Collaboration with other students *during the quiz* is not allowed (however you are encouraged to work together in advance to complete the prelab questions).
- Pre-lab quizzes are due each week on Sundays and Wednesdays by 11:59pm.
- If you do not attempt the quiz before the time it is due, you will receive a zero for the quiz (out of 10 points). However, you can still earn points for the lab report.
- There are no makeup quizzes or time extensions. The lowest prelab quiz score is dropped at the end of the session to account for illnesses, technical difficulties, and other situations.

**Lab Reports**

- For each lab project, you will complete an individual lab report.
- Complete the report appropriately:
  - Answer in full sentences for open-ended questions
  - **Make sure your handwriting is clear and legible if you are using a stylus on a tablet or uploading photos of your handwritten notes.**
  - Enter you answer(s) in the space(s) provided.
  - Label graphs and tables clearly.
  - Show calculation steps clearly for the mathematical questions.
  - Show the use of correct units of measurement and significant figures.
  - Ensure the results and conclusions are consistent with your data and observations.
- You are encouraged to access lab materials and notes while completing the reports. Also, you may discuss your report with peers and your TA, however you must do your own work (i.e. you cannot copy each other’s answers).
- Lab reports are due each week on Tuesdays and Fridays and are submitted to Brightspace.
- The one lowest lab report grade will be dropped at the end of the session.

**Lab Grades**

- Graded lab reports will be available for viewing approximately one week after submission. You are encouraged to review the graded work as your TA may have left useful feedback for your future improvement. If you have questions about your lab grade, reach out to the lab TAs within one week of the graded report being made available to you.
- Make sure you review lab content because the problem sets and/or exams will include lab-related questions.

**Problem Sets**

Problem sets are a low stakes opportunity for you to challenge yourself with practice problems on weekly course material. There will be 7 problem sets this session. Problem sets will be due Fridays at 11:59pm except on exam weeks when they will be due Wednesdays at 11:59pm.
• Problem sets are worth 15 points each. 5 points will be given just for completing the problem set (a complete problem set has reasonable answers for every problem and has uploads showing work for specified questions). 10 points will come from randomly selected questions in the problem set that will be graded for correctness. These will not be announced before problem sets are due.
• You are encouraged to work with others on problems sets! Like lab reports, you are expected to submit your own work, but you are encouraged to talk to your peers and work together.
• The one lowest problem set score will be dropped.
• Problem sets will be completed on Gradescope, just like exams, and they will be available starting after class (12pm) on Thursday (or Tuesday on midterm weeks) and due at 11:59pm on Friday. (or Wednesday on midterm weeks)
• You will be able to view and work on the problem sets as much as you want during that time. If you upload multiple submissions for a question, only your final submission will be graded.
• No extensions will be granted.
• Keys for all problem sets will be posted on Brightspace.

Exams
There will be two midterm exams during the session, each worth 150 points. The dates and content of the exams will be outlined on the schedule and discussed in lecture.
Exams are held during the lecture time and will be monitored over Zoom with video on. You MUST be available during our regularly scheduled class time for both midterm exams. No makeup exams or exceptions will be made. No exam scores are dropped. If you are unable to have your camera on during the exam for any reason, please reach out to Dr. Starr before exam week to determine another solution. Exams will be given on Gradescope.
• If you take the exam but do not login to Zoom for proctoring, you will earn a 0 on the exam.
• If you fail to take the exam during its scheduled time, you will earn a 0 on the exam.
• Exams are open note and open book. You may not, however, consult with anyone about the exam via text, call, the internet (including use of Chegg or other sites), social media, or in person. If it is determined that you did consult unapproved outside sources during the exam, that is considered academic dishonesty and you will be reported and face grade penalties.

Final Exam
The final exam is cumulative and worth 165 points. The final exam will also be given on Gradescope and proctored via Zoom.

The final exam time will be determined by the university and you are expected to be available during that time. Like the midterms, the final exam will be open note and open book, but ANY collaboration with others is prohibited. Consequences of academic integrity violations can include failing the course and, in some cases, removal from the university.
**Determining Your Course Grade**

Each of the assigned course activities for CHM 1160 is worth the number of points listed below. Before course grades are finalized at the end of the semester, the following grades will be dropped:

- Your *one* lowest homework score
- Your *one* lowest recitation participation score
- Your *one* lowest pre-lab quiz score
- Your *one* lowest lab report score
- Your *one* lowest problem set score

The total number of points for CHM 1160 will be distributed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>90 pts</td>
<td>(best 6 of 7 at 15 pts each)</td>
</tr>
<tr>
<td>Recitation Participation</td>
<td>55 pts</td>
<td>(best 11 of 12 at 5 pts each)</td>
</tr>
<tr>
<td>Prelab Quizzes</td>
<td>120 pts</td>
<td>(best 12 of 13 at 10 pts each)</td>
</tr>
<tr>
<td>Lab Reports</td>
<td>180 pts</td>
<td>(best 12 of 13 at 15 pts each)</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>90 pts</td>
<td>(best 6 of 7 at 15 points each)</td>
</tr>
<tr>
<td>Midterm Exams</td>
<td>300 pts</td>
<td>(2 exams, 150 pts each)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>165 pts</td>
<td>(cumulative)</td>
</tr>
</tbody>
</table>

At the end of the session, the total scores for all students will be arranged in numerical order, the score that corresponds to the 99th percentile ($S_{99}$) will be determined, and then letter grades will be assigned based on this percentile score as follows:

- **A:** $\text{Total Score } \geq 0.93 \times S_{99}$
- **A−:** $0.90 \times S_{99} \leq \text{Total Score} < 0.93 \times S_{99}$
- **B+:** $0.86 \times S_{99} \leq \text{Total Score} < 0.90 \times S_{99}$
- **B:** $0.83 \times S_{99} \leq \text{Total Score} < 0.86 \times S_{99}$
- **B−:** $0.80 \times S_{99} \leq \text{Total Score} < 0.83 \times S_{99}$
- **C+:** $0.76 \times S_{99} \leq \text{Total Score} < 0.80 \times S_{99}$
- **C:** $0.73 \times S_{99} \leq \text{Total Score} < 0.76 \times S_{99}$
- **C−:** $0.70 \times S_{99} \leq \text{Total Score} < 0.73 \times S_{99}$
- **D+:** $0.66 \times S_{99} \leq \text{Total Score} < 0.70 \times S_{99}$
- **D:** $0.63 \times S_{99} \leq \text{Total Score} < 0.66 \times S_{99}$
- **D−:** $0.60 \times S_{99} \leq \text{Total Score} < 0.63 \times S_{99}$
- **F:** $\text{Total Score } < 0.60 \times S_{99}$

This system has several advantages:

- Unlike a *curved scale*, it encourages cooperation among students because NO
student is penalized when another is successful.

- Unlike an *absolute scale*, it tends to neutralize the effects of differences from one semester to another and thereby ensures that the same criteria are used to assign grades from one semester to another.

This approach to grading means that the grade you get in this course depends primarily on *your own* effort and performance. *It also ensures that all students who do well in the course will get good grades.*

- Periodically during the session, your total points will be calculated and tentative grade cutoffs will be posted so that you can see how well you are doing in the course. Note that these tentative grade cutoffs will be based on an absolute (90/80/70/60) grading scale (i.e., earning 90% of the maximum possible points is an A, 80% is a B, etc.).

- Check all your grades on Brightspace regularly. If there are any errors or discrepancies, notify Dr. Starr within 1 week of a grade update being announced.

- Save all returned graded papers until after you have received your course letter grade for CHM 11600. To resolve any discrepancies, your paper(s) will need to be reviewed.

**UNIVERSITY AND COURSE POLICIES**

**Attendance and Absences**

CHM 11600 is completely virtual during the summer session. All assignments will be due on Gradescope, Achieve, or Brightspace. Class meetings will occur synchronously on Zoom, but they will also be recorded. Attendance in lecture is not required, but is very strongly recommended. Midterm exams and the final exam will be given synchronously. Students must arrange to be able to take these exams at the specified times as **no alternate times will be available**.

If you become quarantined or isolated at any point in time during the semester, in addition to support from the Protect Purdue Health Center, you will also have access to an Academic Case Manager who can provide you academic support during this time. Your Academic Case Manager can be reached at acmq@purdue.edu and will provide you with general guidelines/resources around communicating with your instructors, be available for academic support, and offer suggestions for how to be successful when learning remotely. Importantly, if you find yourself too sick to progress in the course, notify your academic case manager and notify Melissa Roadruck (melissa@purdue.edu).

We will make arrangements based on your particular situation. The Office of the Dean of Students (odos@purdue.edu) is also available to support you should this situation occur.
Only the instructor can excuse a student from a course requirement or responsibility. When conflicts can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency conflict, when advance notification to an instructor is not possible, the student should contact Dr. Starr and Melissa Roadruck (melissa@purdue.edu) as soon as possible.

When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor’s department because of circumstances beyond the student’s control, and in cases of bereavement, quarantine, or isolation, the student or the student’s representative should contact the Office of the Dean of Students via email (odos@purdue.edu) or phone at 765-494-1747.

At least one lowest score in each category (lab report, prelab problem set, HW, or quiz) is/are dropped at the end of the semester to account for absences due to illnesses, trips, conflicts, or other situations that are not excused absences. This includes internet or related technology issues that may have prevented you from completing a lab report, prelab quiz, homework, or problem set. If you have concerns about how an absence will affect your course grade, contact Dr. Starr at the time of the absence. Verified grief, military, and medical absences are the only excused absences in CHM 11600.

Absence accommodations approved by the Disability Resource Center will be handled individually. Contact the General Chemistry office (genchem@purdue.edu) for more information.

Grief Absence Policy for Students (GAPS)

If you experience the death of a family member or close friend, notify the Office of the Dean of Students (ODOS) at 765-494-1747. Scores for any missed assignments covered under a verified GAPS absence will be pro-rated (assigned a score based on your average grade for that type of assignment). Contact Dr. Starr for more information.

Military Absence Policy for Students (MAPS)

If you are required to complete mandatory military training, notify the ODOS to request that a notice of the leave be sent to instructors. Scores for any missed assignments covered under a verified GAPS absence will be pro-rated (assigned a score based on your average grade for that type of assignment). Contact Dr. Starr for more information.

Changing Sections/Adding/Dropping

UNIVERSITY DEADLINES – Summer 2023
Friday, June 16: Last day to cancel (drop) a course without it appearing on your record.
Friday, June 23: Last day to cancel (drop) a course without a grade.
Wednesday, July 12: Last day to cancel (drop) a course (with passing or failing grade).
**Late Registration:** If you register late, notify Dr. Starr **no later than Tuesday, June 20**th to see about the possibility of making up missed assignments.

**Disclaimer:** This syllabus/course packet is subject to change. Students will be notified of any changes via Announcements on Brightspace, and/or email.
### Abbreviations
- **LR**: Lab report
- **PLQ**: Prelab quiz
- **PS**: Problem set
- **HW**: Homework
- **R**: Recitation
- **CH**: Chapter

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**Recitation Participation Assignments (R) are due at 11:59pm on the day you are assigned to have recitation. That is why they are listed twice. It is YOUR responsibility to turn in your assignment on the correct day.

_Problem sets 3 and 6 are assigned earlier in the week to provide extra practice before midterms._