
CHM 11630 Course Packet Summer 2025

CHM 11630 - General Chemistry II Distance Learning

CRN: 38130-38133

Laboratory: Online, asynchronous

Credit Hours: 1.0

Prerequisites: Undergraduate level [CHM 11610](#) Minimum Grade of D [may be taken concurrently]

Course Personnel and Communication

Instructor: Dr. Jeanine Conklin jaconkli@purdue.edu; virtual office hours Thursdays 9-10:00 AM link posted on Brightspace

TA Supervisor: Micai Benford (CHM11630help@purdue.edu). Micai supervises the lab teaching assistants. He can assist you with all course materials.

Virtual Office Hours as posted on Brightspace: Teaching Assistants (TAs), the TA Supervisor and my office hours will be virtual and posted on Brightspace when confirmed.

General Chemistry Office, BRWN 1144, 765-494-5250

Marlene Miller (marlenem@purdue.edu), Administrative Assistant, partially working remotely
Melissa Roadruck (melissa@purdue.edu), Administrative Assistant, BRWN 1144, 765-494-5252

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

Email 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 to CHM11630help@purdue.edu. Allow up to two business days (M-F, 8 AM - 5 PM) for a response. Please be patient in awaiting a response.

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Course Description:

Chemistry 11630 is a continuation of CHM 11520 or CHM 11530 (General Chemistry I). Topics studied include solutions; quantitative equilibria in aqueous solution; introductory thermodynamics; oxidation-reduction and electrochemistry; chemical kinetics; qualitative analysis; further descriptive chemistry of metals and nonmetals.

Enrollment Details:

- Students can take the lecture (CHM 11610) without the lab (CHM 11630).
- To enroll in the lab (CHM 11630), students must be concurrently registered for the lecture (CHM 11610) or have already completed the lecture.
- Students who drop the lecture (CHM 11610) at any point in the semester are required to *also* drop the lab (CHM 11630) if they do not have prior credit for the lecture (CHM 11610).
- Students can stay in the lecture (CHM 11610) if they drop the lab (CHM 11630).

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 biweekly and offer an opportunity to reinforce and extend what is discussed in lecture (CHM 11610), explore new topics, and to develop your knowledge of chemistry laboratory skills.

The Chemistry 11630 team—the instructor, teaching assistants, administrative assistants, and preparations lab staff—are committed and focused on helping you learn chemistry. Please read on to learn about the required materials, recommended ways to study, lab policies, grading, and other course policies and procedures.

Foundational Core:

CHM 11630 meets the science requirement of the university's foundational core.

Overview of CHM 11630 Activities and Policies**Course Information**

Brightspace (<https://purdue.brightspace.com/d2l/login>) is the primary course management site for course information. Assignment information, PreLab Quizzes, announcements, learning objectives, grades, and other course information will be posted on Brightspace.

Gradescope (www.gradescope.com) will be used for submitting Procedures and Lab Reports and where grading feedback will occur. It will be important for you to learn which site to use for which type of assignment.

Assignments

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

Item	Platform	Day	Time
PreLab Quiz	Brightspace	Sundays & Wednesdays	due 11:59 PM
Procedure	Gradescope	Thursdays & Mondays	due 11:59 PM
Lab Report	Gradescope	Tuesdays & Fridays	due 11:59 PM

All assignments will be listed on Brightspace and/or Gradescope.

Lab Safety and Participation

Lab Safety Certification Quiz is posted on Brightspace and must be completed by Friday June 20 at 11:59 PM to continue in the course.

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 of success, take the pre-lab quiz (on Brightspace) *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.)
- PreLab quizzes are due each week on Sundays and Wednesdays by 11:59 PM.
- If you do not attempt the quiz before the time it is due, you will receive a zero for the quiz (out of 12 points). However, you can still earn points for the lab report (20 points).
- There are no make-up quizzes or time extensions. The one lowest PreLab quiz score is dropped at the end of the session to account for illnesses, technical difficulties, and other situations.

Lab Procedures

- Each lab will have a procedure assignment, which includes the following components:
 - Purpose of the lab
 - Equipment and Reagent list
 - Diagram of the experiment (all parts) with amounts, times and parts labeled
 - Safety and waste information
 - Proper lab manual citation
- Procedures are due on Gradescope each week on Mondays and Thursdays by 11:59 PM.
- If you do not complete the lab procedure before the time it is due, you will receive a zero for the Procedure Assignment (out of 4 points). However, you can still earn points for the lab report (20 points).
- There are no make-up procedure assignments or time extensions. The one lowest procedure score is dropped at the end of the session to account for illnesses, technical difficulties, and other situations.

Lab Reports

- For each lab experiment, you will complete an individual lab report.
- Complete the lab 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 your answer(s) in the space(s) provided.
 - Label graphs and tables clearly and completely.
 - Show calculation steps clearly for mathematical questions.
 - Show the use of correct units of measurement and significant figures.
 - Ensure 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 should not copy each other's answers).
- Lab reports are due to Gradescope each week on Tuesdays and Fridays by 11:59 PM.
- The one lowest lab report grade will be dropped at the end of the semester.
- Failure to submit a lab report will result in a zero score (failure to complete).

Lab Grades

- Graded lab assignments will be available for viewing approximately one week after submission on Gradescope. 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 a lab grade, submit a regrade request through Gradescope, speak with your TA, or Micai Benford, *within one week* of the graded report being made available to you.

Required Materials

Textbook: The textbook used in CHM 11630 is *Chemistry: The Molecular Nature of Matter and Change*, 10th edition, by Silberberg and Amateis by McGraw-Hill. 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 the publisher for \$67.75. See Brightspace for further information.

Office 365: You can download Word, Excel & Teams programs for free. Go to <https://www.itap.purdue.edu/shopping/software/product/office365.html> and log in using your Purdue account.

Digital Materials Charge: Students enrolled in CHM 11630 must purchase digital materials for lab (\$20). This digital content is required; students cannot complete the course without access to it. The materials will be released online on a real-time (approximately weekly) basis during the Summer 2025 semester. This must be purchased by June 23, 2025 from this link: <http://www.eventreg.purdue.edu/online/CHMSummer20>

How to purchase the digital materials for lab:

1. Add the Chemistry Digital Materials to your cart.
2. Log in with your Purdue Career account to make the purchase.
3. Enter your credit card information and click submit. You will be required to make the payment and failure to do so may result in the charge being transferred to your account via the Office of the Bursar.
4. You will receive an email confirmation/receipt, which should be saved as proof of your purchase for future reference.

5. Purchasing will not immediately release the digital materials to you. Instead, the material will be released on a per lab basis on Brightspace.

How to Study for CHM 11630

It will take you at least two hours on your own for every hour you spend interacting with the course online in order to study and learn the material. This means you will spend about 6-10 hours of distraction-free studying and working with chemistry lab each week. You may spend this time reviewing and annotating your lab manual, reading the text, doing PreLab assignments, preparing a procedure, answering Lab questions, or other things. You may find yourself spending *more than* 6-10 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.

Sources of Help

There are several free sources of help for CHM 11630 students. See the Resources section on the course Brightspace page for details. Each TA will hold an office hour on Teams each week. You may attend the office hours of any TA in this course. Detailed schedules of instructor and TA office hours will be posted on Brightspace in the Resources module.

Reading Assignments and Learning Objectives

- Reading assignments are listed at the end of this packet and will also be provided on Brightspace. Reviewing the assigned material prior to the laboratory is recommended. Some of the material will be covered in the CHM 11610 lecture and some on your own.
- Learning Objectives lists the concepts you are expected to understand and the skills (calculations) you are expected to demonstrate for each topic covered in the course. Quiz questions will be based on the Learning Objectives for each lab.

Determining Your Course Grade

Each of the assigned course activities for CHM 11630 is worth the number of points listed below. Before course grades are finalized at the end of the semester the following scores will be dropped:

- your *one* lowest pre-lab quiz score
- your *one* lowest procedure score
- your *one* lowest lab report score

The total number of points for CHM 11630 will be distributed as follows:

Prelab Quizzes.....	144 pts	(best 12 of 13 at 12 pts each)
Procedures.....	48 pts	(best 12 of 13 at 4 pts each)
Lab Reports.....	240 pts	(best 12 of 13 at 20 pts each)
Sub-total.....	432 pts	

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: 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 the lecture coordinator 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 11630. To resolve any discrepancies, your paper(s) will need to be reviewed.

University and Course Policies

Attendance and Participation

This course follows the [University Academic Regulations](#) regarding class attendance which states that students are expected to be present for every meeting of the class in which they are enrolled. Since this course does not have specific meeting times, then absences may affect participation in assignments. Only the instructor can excuse a student from a course requirement or responsibility.

The only excused absences are those due to a death of an immediate family member or friend (GAPS), military training (MAPS), or medically excused absence policy (MEAPS). For MAPS, GAPS, or MEAPS absences, contact the Office of the Dean of Students (**ODOS**) (<https://www.purdue.edu/advocacy/students/absences.html>) to petition for the absence, and if approved, the Dean of Students will email the instructor and your TAs regarding your absence.

When conflicts can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the Supervising TA, Micai Benford (CHM11630help@purdue.edu), of the situation as far in advance as possible to make appropriate arrangements. For unanticipated or emergency conflict, when advance notification is not possible, the student should contact Micai Benford as soon as possible.

At least one lowest score in each category (lab report, PreLab quiz, or procedure) 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 lab report, PreLab quiz, or procedure. If you have concerns about how an absence will affect your course grade, contact your instructor or Micai Benford **at the time of the absence**.

Absence accommodations approved by the **Disability Resource Center** will be handled individually. Contact the Dr. Conklin (jaconkli@purdue.edu) for more information.

Adding/Dropping Sections

UNIVERSITY DEADLINES – Summer 2025

Fri., Jun 20: Last day to cancel (drop) a course without advisor Scheduling Assistant.

Wed., Jul 30: Last day to cancel (drop) a course with advisor (initiate with Scheduling Assistant).

Late Registration: If you register late, notify Dr. Conklin (jaconkli@purdue.edu) no later than **Tuesday June 17** about the possibility of making up missed assignments.

Mental Health/Wellness Statement

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try [WellTrack](#). 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 contact or see the [Office of the Dean of Students](#). Call 765-494-1747. Hours of operation are 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.

If you're struggling and need mental health services: 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 during and after hours, on weekends and holidays, or by going to the CAPS office on the second floor of the Purdue University Student Health Center (PUSH) during business hours.

CAPS also offers resources specific to COVID-19 on its [website](#). Topics range from “Adjusting to the New Normal” to “How to Talk with Professors about Personal Matters.”

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 relates to COVID-19, students may submit requests for emergency assistance from the [Critical Need Fund](#)

Diversity and Inclusion Statement

We strive for equity, providing equal access and opportunity, and working to maximize student potential. This requires both instructor and students to identify and remove barriers that may prevent someone from full access or full participation. You can help by:

- Contacting me, anonymously if needed, if you see a potential barrier for someone or yourself in participating fully in the class. This might be a physical barrier such as access to technology or a personal situation.
- Suggesting ways in which members of our class can support each other. Virtual study groups and discussion boards are examples, but I encourage you to be creative in your ideas.

Getting to know each other as contributing members of our learning community. Everyone has something to contribute, and while I designed the course to take advantage of the wealth of knowledge, expertise, and experience we bring together, I cannot do it well without your participation. There are many opportunities built into this course for this type of work. It is important we do it together.

Nondiscrimination Statement

Purdue University is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. A hyperlink to Purdue's full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies.

Accessibility

Purdue University strives to make learning experiences accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, you are encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247, as soon as possible.

If the Disability Resource Center (DRC) has determined reasonable accommodations that you would like to utilize in my class, you must send me your Course Accommodation Letter. Instructions on sharing your Course Accommodation Letter can be found by visiting: <https://www.purdue.edu/drc/students/course-accommodation-letter.php> Additionally, you are strongly encouraged to contact me as soon as possible to discuss implementation of your accommodations.

You should also consider contacting the DRC if you have a chronic illness which will cause you to miss or be late to lab.

Emergency Preparedness

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 11630 will be posted on Brightspace and shared via announcements and email. You are expected to read your Purdue email on a frequent basis.

Student and Safety-Related Policies

Purdue University provides numerous policies related to students. A hyperlink to this list of [Student-Related Policies](#) is on the Brightspace landing page. I suggest you review these policies, particularly those under Ethics and Facilities and Safety. For example, see the [Violent Behavior Policy](#) that focuses on our efforts to provide safe and secure campus environments for members of

the university community. Therefore, violent behavior is prohibited in or on any University facility or while participating in any university activity. Another example, is the policy prohibiting [Amorous Relationships](#) between a student and any University employee who has educational responsibility over the student. These and similar policies are in place as part of Purdue's commitment to maintaining an environment in which learning, discovery, and engagement take place in safe and professional environments.

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 11630, 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 quizzes in CHM 11630 are open book and open note, however all collaboration with others (such as Group Me, Zoom, discussion boards, text, in-person, etc.) during a quiz is prohibited.

Using online resources such as Chegg to gain answers to any graded assignment (including homework, labs, quizzes and exams) is *not* allowed. Posting course materials to websites is a violation of copyright laws and is *not* allowed. The CHM 11630 instructor can obtain user information from Chegg and other sites when inappropriate course material is posted. This information will be investigated.

The use of ChatGPT or other AI agents is not allowed in the class because many of the chemical "facts" that are generated are inaccurate. Students should preferably use 1. The course lab manuals, 2. The textbook, and properly cite all source use.

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 11630 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.

Course Schedule & Assignments

Disclaimer: This syllabus/course packet is subject to change. Students will be notified of any changes via Announcements on Brightspace and/or email.

Week	Lab Name	Reading	Release Date	PreLab Quiz Due Date	Procedure Due Date	Report Due Date
1	Lab 0: Excel Lab	Ch. 1, 3, 21	6/16	6/17	6/17	6/17
1	Lab 1: A Chemical Oscillation Reaction	Ch. 13	6/18	6/18	6/19	6/20
2	Lab 2: Factors Affecting Rates of Chemical Reactions	Ch. 16	6/21	6/22	6/23	6/24
2	Lab 3: Chemical Kinetics, Part I	Ch. 16	6/25	6/25	6/26	6/27
3	Lab 4: Chemical Kinetics, Part II	Ch. 16	6/29	6/29	6/30	7/1
3	Lab 5: Bromocresol Green Equilibrium Systems	Ch. 17	7/2	7/2	7/3	7/8*
4	Lab 6: Iron(III) Thiocyanate Equilibrium System	Ch. 17	7/9	7/9	7/10	7/11
5	Lab 7: Electrolyte and Nonelectrolyte Solutions	Ch. 4, 13	7/13	7/13	7/14	7/15
5	Lab 8: Acid-Base Equilibria, Part I	Ch. 18	7/16	7/16	7/17	7/18
6	Lab 9: Acid-Base Equilibria, Part II	Ch. 18	7/20	7/20	7/21	7/22*
6	Lab 10: How Much Copper is in a Penny?	Ch. 21	7/23	7/23	7/24	7/25
7	Lab 11: Thermodynamics and Equilibrium	Ch. 17	7/27	7/27	7/28	7/29
7	Lab 12: Redox Reactions	Ch. 21	7/30	7/30	7/31	8/01
	* due dates extended					