

Instructor: Ms. Angelique Ithier, aithier@purdue.edu

Head Teaching Assistants :

Lab supervisor Calvin Nguyen, nguye625@purdue.edu

Lecture/recitation supervisor Mauricio Cortes, cortes5@purdue.edu

Office Hours: Refer to the schedule and announcements on the course Brightspace page.

Lectures: In person, Tuesday & Thursday 10:30 am (WTHR 200)

Lectures are recorded via Boilercast and posted to Brightspace

PSO/Recitations: In-person, Wednesdays, according to your class schedule

Labs: In-person, Tuesdays, Chaney-Hale Hall of Science (CHAS), according to your class schedule

General Chemistry Office, BRWN 1144, genchem@purdue.edu, 765-494-5252

Melissa Roadruck, Administrative Assistant

Marlene Miller, Administrative Assistant

Course Description

Chemistry 11100 is a three-credit hour foundational general chemistry course for agriculture, health and human science, and other majors. The stated minimum prerequisite for CHM 11100 is two years of high school algebra. The course is oriented around helping you learn the fundamental chemistry concepts, calculations, and laboratory skills you need in your major. We have a diversity of majors in the course and believe that it is important to relate the chemistry you are learning to the topics you will see in other courses.

The course begins by reviewing measurements, mathematics, and energy changes. We next move to discussing atoms and isotopes then ions and compounds. We will study a bit about periodic properties and how atoms bond to form molecules. Once you know the names of ions and compounds, we study their shape, since it is the shape of molecules and ions that influences their reactivity. We discuss the chemist's basic measuring unit, the mole, and use that unit to investigate chemical reactions. Across all topics, there is a simultaneous emphasis on development of problem-solving skills and conceptual understanding. Laboratories and recitations (PSO) are scheduled weekly and offer an opportunity to reinforce and extend what is discussed in lecture, explore new topics, and to develop your hands-on laboratory skills. We strongly encourage you to attend recitation (PSO).

The Chemistry 11100 team — the instructor, supervisors, teaching assistants, administrative assistants, undergraduate graders and general chemistry preparations lab—are committed to, and focused on, helping you learn chemistry. We know that this is a foundational course for your major, and to achieve your goals and dreams, you need to do well in the course! Please read on to learn about the required materials, schedules, recommended ways to study, lab policies, grading, and other course policies and procedures.

Learning Objectives:

Detailed learning objectives are provided for each module of the course. Broad course learning objectives are

1. Explain the behavior of and interactions between, atoms, molecules, and ions at the molecular and macroscopic levels.
2. Use standardized names and symbols to represent atoms, molecules, ionic compounds, and ions as well as chemical reactions.
3. Predict atomic structure, chemical bonding, and molecular geometry based upon scientific models.
4. Demonstrate competence in quantitative problem solving, conceptual understanding, and the ability to formulate an argument based upon evidence.
5. Demonstrate competence in collecting, analyzing, and interpreting laboratory data.
6. Use computers in data acquisition and processing and use available software as a tool in data analysis.

Foundational Core: CHM 11100 meets the science requirement of the university's foundational core.

BRWN 1144, The General Chemistry Office, 765-494-5250, genchem@purdue.edu: The General Chemistry office handles administrative details associated with the general chemistry courses.

Supervising TAs: We have two TA supervisors who will be working in CHM 111 this semester:

- Mauricio Cortes, cortes5@purdue.edu
- Calvin Nguyen, nguye625@purdue.edu

Teaching assistants: There will be approximately 6 teaching assistants to teach recitation (PSO) and lab in the course. You will be assigned a laboratory section and a recitation (also called PSO) that is taught by the same person. You will also have a Brightspace PSO section for this course where your TA may post information for you.

Communicating with your CHM 111 Team

Please send all emails from your @purdue.edu account. We will not answer emails from any other email accounts such as gmail. *Please include a subject line including your course number and indicating why you are writing to us. If you need to contact more than one person, please send one message with multiple recipients rather than several individual messages.* Before you hit send, re-read the email, and edit for clarity! Finally, please sign the email with your name.

We normally respond to emails within 2 business days during normal business hours. On the weekends or holidays, it may take a longer period of time.

Course Information:

Brightspace (<https://purdue.brightspace.com>) 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. We recommend you visit Brightspace often and enable Brightspace notifications.

Learning Resources, Technology, and texts:

Textbook:

The textbook we have chosen for you this semester is Chang, Chemistry, 14th edition (ISBN: 9781260784473). We have also chosen the McGraw-Hill **ALEKS** online homework program for our

homework platform this year. When you purchase Aleks it includes an electronic copy of the textbook, Chang, Chemistry, 14th edition (ISBN: 9781260784473). You can purchase Connect from the University bookstores or directly through McGraw-Hill (it's cheaper directly from McGraw-Hill because the bookstore adds a small markup to the McGraw-Hill price). If you would like a physical textbook (loose-leaf version) as well, you must purchase Connect directly through McGraw-Hill online (ISBN: 9781264243679). If you are using an old book (any edition) you will still need to purchase access to the Connect program and that will automatically include an electronic copy of the text. A link on the course Brightspace page will direct you to the McGraw-Hill site where you can make your purchases.

Calculator:

A **simple battery-operated scientific calculator** with exponential, logarithm and square root functions is required for this course (a TI-30 works well, but other brands are also acceptable) for the exam and the final. Two-line **non-programmable calculators** are allowed. It is recommended to get calculators approved before exam as Alpha-numeric and programmable calculators will NOT be allowed for the exams or the final.

Lab Manual:

We will use a digital laboratory manual this semester from Top Hat and the online laboratory simulation program BeyondLabz. You can purchase access to Top Hat (**which includes an access code for BeyondLabz**) directly from the link Ms. Ithier will email you at the end of Week 2.

Lab materials:

You are required to wear approved indirect vented safety goggles while in the laboratory. Goggles are available to purchase in the university bookstores, from the storerooms on the 1st and 4th floor in CHAS, or online. Goggles may not have exposed holes on the sides, top or bottom that would allow chemicals or vapors to damage the eyes (must meet the ANSI Z87.1:2020 (+D3) standard).

You should bring a notebook of your choice to lab for note taking. If you choose, you may take digital notes on your electronic device. You may bring your laptop to lab each week to access your digital lab manual and digital lab report. There are iPads in each of the laboratories for you to use as well. You are responsible for ensuring that you have all lab data before leaving lab. This includes ensuring that the information was properly saved and can be accessed outside of the laboratory. Students will not be able to makeup labs due to unsaved data.

Supplemental Instruction:

Supplemental Instruction (SI) is a program built around peer-led group study sessions. Our SI Leader, Brandon, is an undergraduate student at Purdue and knows what it takes to succeed.

SI leaders facilitate or guide learning through fun, collaborative activities that provide more practice with challenging course material and concepts. SI attendance is correlated with higher grades in the paired course, but it shouldn't be thought of as a quick fix or a place to go for last minute help before a quiz or exam. To get the most benefit, you should attend SI early in the semester and continue in SI as often as you can. Keep in mind that 1 hour of productive group study is equal to 2 hours of solo studying – *SI helps you maximize your study time while also getting to know your peers and having fun.* Students attending SI regularly earn a letter grade higher than those who do not.

Times and locations for the study session can be found here: <https://www.purdue.edu/asc/si/> and you can access the sessions from Brightspace. Brandon and Felicia's SI sessions, office hours, and email addresses are:

SI Leader: Brandon Czerak (bczerak@purdue.edu)

SI Sessions: Tuesday, GRIS 118 at 5:30 pm; GRIS 118, at 5:30 pm

Office 365:

If in person office hours are not possible (such in times of inclement weather), we will be using MS Teams. You can download and use Teams/OneNote and other programs free. Go to <https://www.itap.purdue.edu/shopping/software/product/office365.html> and log in using your Purdue account.

Week 1 Assignments:

For updates please always refer to the course Brightspace page especially the announcements.

- Purchase required materials when links are available through Brightspace (see above)
- Register for your Aleks account if you received a printed code.
- Complete the ALEKS initial Knowledge Check.
- Check dates for the first Aleks assignment when available on Brightspace.
- Read all the information in this course packet.
- Read the Reading Assignments and Learning Objectives (when available on Brightspace).
- Complete the Syllabus Quiz by January 19 @ 11:59 pm (will be available soon)
- Check your Purdue email frequently for information and updates.

Weekly Keys to Success:

(Also refer to the “Some Ways to Study Chemistry” on the course Brightspace page.)

- Attend lecture, recitation, and lab.
- Check Brightspace often so you know when work is due.
- Complete the reading assignment *before* lecture (see lab/lecture schedule at end of packet).
- Complete your ALEKS homework assignment (due each Friday at 11:59 pm).
- Prepare for lab: read the relevant lab manual chapter and complete the pre-lab exercises (due on Monday at 11:59 pm).
- Complete any Activities and Explorations (due on Sunday at 11:59 pm).
- Complete quizzes by due date/ time (refer to course schedule at end of packet)

Overview of CHM 11100 Activities and Policies

***For more detailed information and updates/changes see the course Brightspace page. ***

Brightspace

This is the learning management system (LMS) that we use in the course. We will post all the course resources on our Brightspace page, and you will need to access this page multiple times each week. The course content is broken up into 3 modules that are explained on the course lecture schedule at the end of this document.

Reading

See the lecture schedule in the course syllabus for the reading assignments. These are also posted on our Brightspace. *Reading the assigned material prior to listening to the lecture and laboratory materials is recommended.*

Lectures

Lectures are conducted at 10:30 am in WTHR 200 on T and Th. The Powerpoint slides for the lecture are posted in Brightspace. The lectures will be recorded (Boilercast) and posted in Brightspace as they become available.

Recitation (PSO)

Recitation (PSO) takes place each Wednesday (check your schedule). There will be a recitation guide each week that is integrated into the modules with the answers on the bottom of the page (most, if not all weeks). PSO is also a place where you can ask questions about lab, lecture, homework, or other content areas.

Homework (ALEKS)

Each week you will turn in an online homework assignment in ALEKS. A few homework problems will likely appear as questions on quizzes.

Deadlines for completing the on-line assignments will be listed on the online ALEKS assignment page, in Brightspace, and in the title of the homework. Homework will be due on Fridays at 11:59 pm. You will have a maximum of **three (3) question attempts** to complete each homework assignment before the listed due date. Homework will be scored and recorded on-line and there is no hand grading or regrading of homework. Your **best score** is the one that is recorded (not the average).

Activities and Explorations

These are graded activities where you might explore a simulation and learn more about the behavior of atoms or engage in writing about your understanding of polar molecules. Or you might watch a demonstration video and answer questions about the demonstration. You will upload a pdf document with your answers to Brightspace which will ensure that we can see and grade your answers. There will be a maximum of 7 of these activities and your lowest score is dropped at the end of the semester for a total of 120 points.

Surveys and In-Class Work

There are 100 points of surveys and other in-class work that will be carried out in the semester. The first survey (Getting to Know You) is due Thursday, Jan 11th at 11:59 pm.

Laboratory

Laboratory exercises are an integral part of CHM 11100 and are an opportunity for you to experience, in a hands-on way, the chemical concepts discussed in lecture. We will be using a Top Hat digital Lab Manual and BeyondLabz laboratory simulation program that you will need to purchase using a specific link that will be provided during the first two weeks of class.

Laboratory Expectations

- Lab attendance is required since CHM 11100 is a laboratory course. Specific information concerning attendance and makeup policies can be found in the Brightspace Absence Module.
- **You are required to complete at least 9 of the 11 scheduled lab projects (Labs 2-12) to pass the course. If you fail to complete more than 2 lab projects (not including the Excel Lab) by missing laboratory or being asked to leave laboratory, your final grade will be dropped by one letter grade for each subsequent missed lab after 2.**
- **You must complete the online safety certification in Brightspace with a score of 20/25 or better by 11:59 pm on Monday, Jan. 15, 2024.** You may not engage in in-person laboratory activities if you have not completed the safety certification.
- Follow all lab safety regulations (see below). These regulations may seem inconvenient, but they are **necessary for your safety and the safety of others in the lab.**
- Before lab, read the experiment and attend recitation to help you prepare.
- Arrive on time, properly dressed, and prepared for lab work. If you arrive at lab more than 10 minutes late or improperly dressed, you will be asked to leave the lab, and will receive a score of zero and this absence counts as one of your missed laboratories
- Complete the pre-lab exercises in Top Hat before coming to lab. Pre-labs are due at 11:59 pm on Monday.
- Endeavor to work as an effective member of the team.
- Your lab report will be completed online. You should make sure to always:
 - Label graphs and tables.
 - Use the data you collected for the calculations and analysis.
 - Use correct units of measurement and significant figures.
 - Use chemical terms and concepts correctly.
 - Ensure results and conclusions are consistent with your data and observations.

- Lab reports are due on Fridays at 11:59 pm. No late lab reports will be accepted.
- You will be able to review your graded lab reports online within 1-2 weeks after they are submitted. If you have questions about your grade, speak with your lab instructor, or one of the supervising TAs .

Laboratory Policies

You will be sharing laboratory equipment with the students in laboratory. Students in CHM 11100 have a history of functioning as a responsible community. Your lab partners will depend upon your commitment to keeping the equipment clean and in good working condition.

- It is important that you do your part to maintain the equipment throughout the semester by cleaning all the pieces of equipment after use by washing with hot water, soap, and a brush, rinse with tap water, then rinse with deionized water (it's a 3-step process to get the glassware clean and you will have better experimental results with clean glassware).
- If you are responsible for a piece of equipment becoming un-useable i.e., the piece becomes chipped, cracked, stained, broken, etc., you must go to the storeroom (immediately) and purchase a replacement.
- Should you discover that a piece of equipment is missing, first check with the other students in the lab and the lost and found box. If the piece is still missing, your group must replace it immediately. The storeroom staff can split the cost of a replacement among all or any number of lab partners.
- Often pieces of equipment are broken accidentally; for instance, a thermometer rolls off the bench and breaks. Replacing the thermometer is still the responsibility of the group and the storeroom staff can split the cost of a replacement among the lab partners.
- You will not have the opportunity to store personal items such as your goggles in the laboratory. Please remember to bring them to class.
- Failure to check out of your lab drawer at the end of the course, or if you drop the course and do not check out of your lab drawer, results in a \$45 fee + cost of replacement glassware being added to your account. In other words, it **costs \$45+ if you do not check out** of your laboratory drawer.

Lab Safety Regulations

Students' safety in the laboratory is a priority and everyone is required to comply with the following safety regulations. Failure to comply will result in being sent home from lab with a score of zero, which counts as a lab absence.

- Dress appropriately (see below).
- Wear gloves when specified. Nitrile (non-latex) gloves will be provided in the laboratory.
- Food and beverages are not allowed in the labs. **(This includes water bottles)**
- If your hair is longer than shoulder length you must tie it behind your head
- Contact lens wearers are encouraged to wear glasses in the laboratory.
- Follow your instructor's guidance on appropriate handling of hazardous materials and disposal of chemical waste.

Lab Safety

*Students' safety in the laboratory is a priority and everyone is required to comply with the following safety regulations. Failure to comply will result in being sent home from lab **with a score of zero**, which counts as a lab absence.*

- All students will complete the online safety certification during lab check-in in Week 1. You must score at least 20/25. The safety certification quiz may be taken as often as needed to pass.
- If you miss lab check-in, or score less than 20/25, then you must complete the safety certification on your own *before* you will be allowed to work in lab. You will be sent home and will receive a zero for *each* lab you miss due to an incomplete safety certification.

- Dress appropriately (see image below)
- Goggles are required **at all times** in the laboratory, including during clean up, report-writing, and lab check-out. If you are in lab and your goggles are not covering your eyes, you will be sent home and will receive a zero for the lab and the lab report (failure to complete). Once you remove your goggles, you must walk out of the lab *immediately*. In other words, you must put everything away, pack-up, and chat with classmates *before* removing your goggles.
- Wear gloves when specified in the lab instructions or by your instructor.
- If your hair is longer than shoulder length, you must tie it behind your head.
- Contact lens wearers are encouraged to wear glasses in the laboratory.
- Food and beverages, **including water bottles**, are not allowed in the labs.
- Follow your instructor's guidance on appropriate handling of hazardous materials and disposal of chemical waste.
- Promptly clean up spills and tidy the laboratory before leaving.
- Proper dress (clothing, socks, and shoes) is required. Chemistry department regulations state that you must wear clothing in the laboratory that protects your skin. Your clothing must **cover you from your neck (collarbone) to your ankles (thus, you need socks, not footies, SOCKS)** when sitting, standing, or reaching. Your feet must be completely covered by your shoes. Your TA or lab supervisor might ask you to raise your arms or bend your knees to check if you are violating proper dress.

If you attend lab in unacceptable attire, you will be sent home and will receive a zero for the lab (failure to complete).

Unacceptable clothing includes, *but is not limited to*:

- tops that are sleeveless, low-cut, V-neck or scoop neck (below the collar bone), bare midriff or crop tops, or tank-style
- loose-knit sweaters that expose your skin due to holes or baggy style
- pants that are ripped or have **holes** in the fabric of *any* size
- tights or thin (translucent or transparent) **leggings** or those that have holes or mesh inserts
- Capri or cropped pants
- skinny or ankle pants that reveal skin between the shoe and the bottom of the pant leg (wear boot or long socks if your ankle shows)
- shorts
- short skirts (i.e. shorter than floor length)
- open-toed and/or open-heeled shoes (including Crocs, Birkenstocks or other clogs)
- sandals (with *or* without socks)
- boat shoes, ballet flats, slippers, moccasins, or any shoe that doesn't cover the **entire** top of your foot and ankle, with **or** without socks

► If you come to lab wearing anything in the list above, you will be sent home and you will get a zero for that lab.

Your best option for chemistry lab attire is a crew neck t-shirt, jeans without holes, and sneakers with socks that cover your ankles.

Proper Lab Attire

Splashproof goggles covering eyes

Long hair should be tied back

Shirt must cover shoulder

No holes in clothes

No plunging necklines

No bare midriff

Gloves when specified

Pants must cover legs to ankles

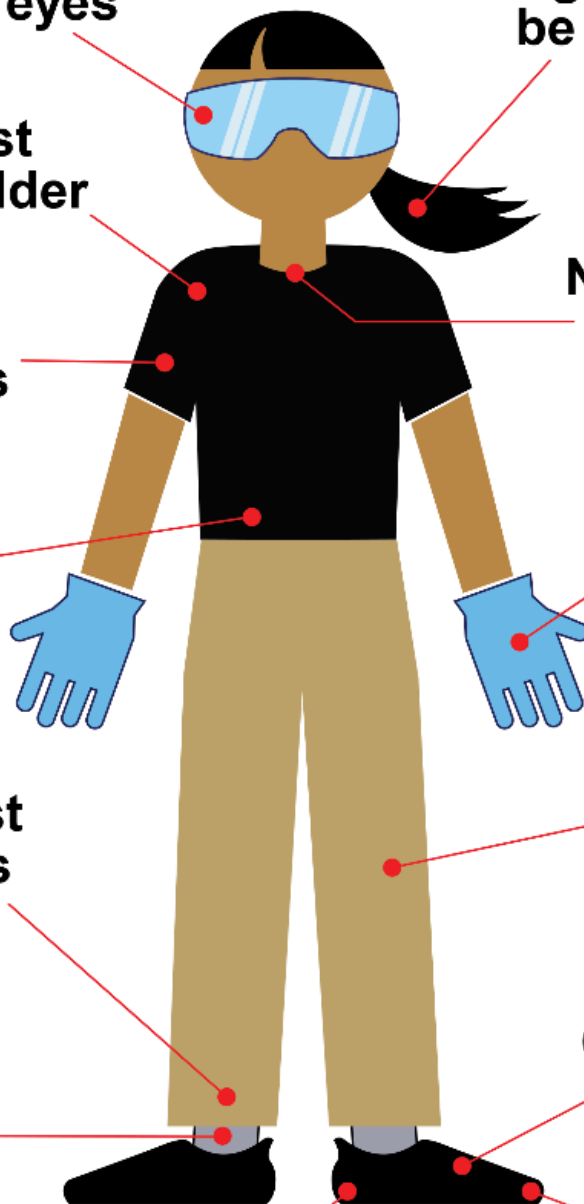
No holes in clothes

Socks

Covers top of foot

Closed heel

Closed toe



Exams and Final

The exams and the final will be held in-person synchronously. The exams and final contain a mixture of write-in and short answer questions to be graded via Gradescope Artificial Intelligence (AI).

There are 3 midterm exams for CHM 111

- Thursday 02/08 @ 8:00 pm WTHR 200/172 (Check seating assignment on Brightspace)
- Wednesday 03/20 @ 8:00 pm WTHR 200/172 (Check seating assignment on Brightspace)
- Wednesday 04/17 @ 8:00 pm WTHR 200/172 (Check seating assignment on Brightspace)

The final exam will be administered during the week of April 29th. Time and place will be announced by the university during the semester.

Due Dates for Graded Course Components

Sundays @ 11:59 pm – Activities & Explorations

Sundays @ 11:59 pm -- Quizzes

Mondays @ 11:59 pm -- Pre-labs (weekly!)

Fridays @ 11:59 pm – Lab Reports (weekly!)

Fridays @ 11:59 pm – ALEKS Homework (weekly!)

The pace of the course is designed to help you make steady and productive progress toward the course learning objectives thus we expect all work (labs, quizzes, homework, activities and explorations, badges, etc.) to be submitted by the due date. Please plan ahead and avoid last-minute submissions. Extensions are not granted for last-minute technical issues that prevent you from turning in your work. Late assignments will not be accepted for this course.

Extensions are only granted in alignment with university policies (GAPS, MAPS, MEAPS, Jury Duty, etc.) and DRC modified attendance policies.

Use of Artificial Intelligence (AI) in CHM 111

CHM 111 uses Gradescope AI to aid in the grading of all exams and the final. Assignments submitted VIA Brightspace will be scanned with the Turnitin Originality Checker.

Using Artificial Intelligence (AI) resources to gain answers to any graded assignment (including homework, labs, quizzes, activities and explorations, etc.) is *not* allowed.

Attendance and Absences

This course follows Purdue's academic regulations regarding attendance. Only the course instructors (professors) can excuse a student from a course requirement or responsibility. If you are absent, refer to the Absence module on Brightspace and take the relevant action step.

Do not come to class if you feel ill, have a fever, or display any symptoms associated with COVID-19 or the flu.

Under academic regulations, excused absences may be granted by ODOS for cases of grief/bereavement, military service, jury duty, parenting leave, or emergent or urgent care medical care (details below). These are the **only** excused absences in CHM 11100. To request makeup work or deadline extensions for excused absences, see the Absences module on Brightspace.

To account for unexcused absences (illnesses, trips, conflicts, or other situations), the lowest score in each grade category (recitation, lab report, prelab quiz, HW, exam) is automatically dropped at the end of the semester. This includes internet or related technology issues that may have prevented you from completing a lab report, prelab quiz, or homework. Students with unexcused absences are eligible for one lab make-up assignment, per student, per semester. Refer to the Laboratory section of this document for details. No other makeup work or deadline extensions (i.e. for prelab, recitation,

HW, or exams) are possible for unexcused absences.

Absence accommodations approved by the **Disability Resource Center** will be handled individually. Contact Ms. Ithier (aithier@purdue.edu) for more information.

Lab attendance is required since CHM 11100 is a laboratory course. Replacement assignments (online makeup labs) are possible for absences documented through the Disability Resource Center or The Office of the Dean of Students (GAPs, MAPS, MEAPS, Jury Duty). To account for absences due to circumstances NOT documented through DRC or ODOS, all students will be given the opportunity to apply for one makeup assignment (See Absences Module in Brightspace for details). The one lowest lab score is dropped at the end of the semester to account for *all other* absences as well as for reports that are not submitted due to technical or other issues.

The cases below result in a score of zero and constitute a **Failure to Complete the laboratory**.

- being absent from lab other than situations addressed in the paragraph above
- being dismissed from lab for an incomplete Safety Certification (score <20/25)
- being dismissed from lab for safety violations, including dress and goggle violations
- **arriving more than 10 minutes late**
- leaving lab early or otherwise not completing the lab project
- inadequate preparation that hinders lab participation
- not contributing constructively to the group's work in lab
- not recording appropriate data and/or observations during lab
- failure to submit a lab report, even if you attended the lab

Failure to complete three labs will result in your final grade for the semester being reduced by one full letter grade. An additional letter grade penalty will be applied for each additional failure to complete. (For example, if you earned a B at the end of the semester but failed to complete 3 labs, your final letter grade would be a C. If you failed to complete 4 labs, your final letter grade would be a D)

Grief Absence Policy for Students (GAPS)

If you experience the death of a family member or close friend, fill out the form at <https://www.purdue.edu/advocacy/students/absences.html>. Scores for any missed assignments covered under a verified GAPS absence are usually pro-rated (assigned a score based on your average grade for that type of assignment at the end of the semester). Refer to the Absence module on Brightspace for more information or alternatives.

Military Absence Policy for Students (MAPS)

If you are required to complete mandatory military training, fill out the form at <https://www.purdue.edu/advocacy/students/absences.html>. Scores for any missed assignments covered under a verified MAPS absence are usually pro-rated (assigned a score based on your average grade for that type of assignment at the end of the semester). Refer to the Absence module on Brightspace for more information or alternatives.

Medical Excused Absence Policy for Students (MEAPS)

Students may occasionally have to miss class and other academic obligations due to hospitalization,

emergency department or urgent care visits, whether physical or mental health related in nature. The intention of this policy is to afford arrangements to students experiencing serious and short-term medical situations which cause them to miss coursework and/or exams. A student should complete the Medical Excused Absence Request Form (<https://www.purdue.edu/advocacy/students/absences.html>) to request that an absence notification be sent to instructors. You will be given the opportunity to make up work missed due to a medical excused absence. Refer to the Absence module on Brightspace for more information on requesting makeup work or deadline extensions.

Attendance

Attendance of lecture, lab, and recitation is key for success in the course. **If you miss or are asked to leave laboratory for more than 2 laboratories your grade will be dropped by one letter grade for each subsequent absence over 2 .** Note that labs for which you complete an approved makeup are not considered missed labs. Please carefully read the laboratory section to understand the attendance requirements.

The Brightspace Absence Module explains attendance, makeup, and deadline extension policies. Please familiarize yourself with these policies and procedures so that you know what to do if you need to miss a CHM 111 class.

Quizzes

There will be about 6 online quizzes, administered through Brightspace, worth 10 points each. The content will include problems and concepts from previous weeks within the course. We will announce on Brightspace when quizzes will open and close.

Laboratory

Laboratory exercises are an integral part of CHM 11100 and we will complete our labs this year using Top Hat Labs.

Your lab report will be completed online. You should make sure to always:

- Click SAVE or SUBMIT after you type your responses!
- Label graphs and tables.
- Use the data you collected for the calculations and analysis.
- Use correct units of measurement and significant figures.
- Use chemical terms and concepts correctly.
- Ensure results and conclusions are consistent with your data and observations.

You will be able to review your graded lab reports online within one to two weeks after they are submitted. If you have questions about your grade, speak with your lab instructor.

Course Activities, Policies and Procedures

Studying Chemistry

Expect to spend at least 8-12 hours per week on chemistry. This time includes reading course materials, attending classes, watching demonstrations, completing homework and assignments and explorations, quizzes, and lab assignments.

Sources of Help

There are several **free** sources of help for CHM 11100 students: (1) professor office hours, (2) TA office hours, and (3) SI sessions. Supplemental Instruction (SI, www.purdue.edu/SI) is offered for CHM 11100. Please visit Brightspace to access information about connecting with SI sessions for your course(s).

UNIVERSITY AND COURSE POLICIES

Details of the following policies are listed under the *University Policies and Statements* module on the CHM 11100 Brightspace page: Academic Integrity, Nondiscrimination, Class Absences, Attendance, Amorous Relationships, Emergency Preparedness, Violent Behavior, Use of Copyrighted Materials, and Land Acknowledgement.

Adding/ Dropping/Changing Sections

CHEMISTRY DEPARTMENT DEADLINES FOR ADDING OR SWITCHING SECTIONS

Fri. Jan 12: last day to add CHM 11100 or switch lab sections *without* instructor approval

Fri. Jan. 26: last day to switch lab sections *with* instructor approval*; last day to add CHM 11500 with instructor approval*

Fri. Feb. 2: last day to switch from another CHM course to CHM 11100 *with* instructor approval*

UNIVERSITY DROP DEADLINES

Mon. Jan. 22: Last day to drop (cancel) a course via myPurdue without it appearing on your record.

Fri. April 12: Last day to drop (cancel) a course (with a W).

**Submit request using Scheduling Assistant*

Leaving the Course: If you drop your laboratory course after having checked into a lab drawer, it is YOUR responsibility to check out of your assigned drawer during your scheduled lab period. You are encouraged to check out as soon as possible rather than waiting until the end of the semester.

Failure to check out of lab will result in \$45 fee, and forfeiture of the right to determine the acceptability of all drawer equipment. In other words, you will be charged for all equipment that is unacceptable (dirty, broken, chipped, missing, etc.).

Check-out day:

– On the last of laboratory, you and your lab partners will check-out of your lab drawer. You must arrive on time, properly dressed and wear goggles. If you arrive more than 15 minutes late, you will be asked to leave the lab and assessed a fee of \$45.

– You and your lab partners will clean and inventory the drawer for your TA's inspection. All missing or un-useable equipment must be replaced at that time.

Adding the Course/Late Registration: Students are usually not permitted to add CHM 11100 after week 2 of the semester (Friday, Jan 19). Notify the course instructor (Ms. Ithier, aithier@purdue.edu) within 24 hours of adding the course if you register late.

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 11100 will be posted on the course Brightspace site or can be obtained by contacting the instructors or TAs via email or the General Chemistry Office via phone at 765-494-5250. You are expected to read your @purdue.edu email on a frequent basis.

Again: You are expected to read your @purdue.edu email on a frequent basis.

“**Shelter in Place**” means seeking immediate shelter inside a building or University residence. This course of action may need to be taken during a tornado, earthquake, release of hazardous materials in the outside air, active shooter, building intruder, or a civil disturbance. If you hear the **All Hazards Outdoors Emergency Warning Sirens** or are notified via text or other means, immediately go inside a building to a safe location and use all communication means available to find out more details about the emergency. **Remain in place** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave. There is no “all safe sirens;” the notification will come via text, internet, or email announcement.

- In the case of a major campus emergency involving a shelter-in-place, **all** laboratory experiments will be halted while students shelter in lab. Students’ lab grades will **not** be penalized in this situation.

Accessibility and Accommodations:

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. To implement accommodations, you must submit your “Course Accessibility Letter” to all sections (CRNS) of the course in which you are enrolled (lecture, lab, and recitation) via the AIM system at least one week before an exam or assessment for which accommodations are desired. Additional instructions may be provided by the Disability Resource Center which must be followed as well. We may also require an in-person or virtual meeting to discuss certain accommodations.

Due to the size of the class, students with testing accommodations are expected to schedule and take their examinations through Purdue Testing Services. Students are expected to respond in a timely manner and meet all communicated deadlines to schedule their examinations (including the final) with the testing center. Students with accommodations who fail to respond and fail to schedule their test with the testing center may not be able to have all their accommodations met. Thus, it is critically important that all students read their Purdue email daily and respond in a timely manner to requests or directives, especially if you have accommodations related to testing.

Implementation of accommodations may not be possible if insufficient notification is given.

Academic Integrity Statement and Consequences.

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern.” Please read <http://www.purdue.edu/odos/osrr/academic-integrity/index.html>.

In CHM 11100, academic integrity means “doing your own work” at all times. Discussion of chemical concepts and problem-solving methods 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 and is considered academic dishonesty.

Using online resources such as Chegg to gain answers to any graded assignment (including homework, labs, quizzes, activities, and explorations, etc.) is *not* allowed. Posting any course materials to websites is a violation of copyright laws and is not allowed. Instructors can obtain user information from Chegg and other sites when inappropriate course material is posted and investigate it.

Using Artificial Intelligence (AI) resources to gain answers to any graded assignment (including homework, labs, quizzes, activities and explorations, etc.) is *not* allowed. Graded assignments should be completed by oneself without outside influence of online resources, such as AI and Chegg.

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. 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.

Purdue Honors Pledge

We support and affirm the academic integrity of Purdue in accordance with the Purdue Honors 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>

Diversity Welcome

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, disabilities, education, ethnicities, family/parental statuses, genders, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

See: <http://www.purdue.edu/diversity-inclusion/>

Nondiscrimination Statement

Purdue university is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages everyone to strive to reach his or her own 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. Purdue's nondiscrimination policy: https://www.purdue.edu/purdue/ea_eou_statement.php.

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 at 765-494-1747 (odos@purdue.edu). See the Brightspace Absence Module for more information.

MAPS Absence Policy for Students (MAPS)

If you are required to perform mandatory military training, notify the Office of the Dean of Students at 765-494-1747 (odos@purdue.edu). See the Brightspace Absence Module for more information.

Medically Excused Absence Policy for Students (MEAPS)

If you experience a medical emergency that requires hospitalization, emergency room care, or urgent care, notify the Office of the Dean of Students at 765-494-1747 (odos@purdue.edu). See the Brightspace Absence Module for more information.

Absences Due to University Sponsored Activities

If you have a professional development opportunity or a required university sponsored activity related to your course of study, you should provide your documentation to Ms. Ithier (aithier@purdue.edu) as far in advance as possible to request approval. See the Brightspace Absence Module for more information.

Mental Health and 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 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. 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.

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 am-5 pm Monday through Friday. Students may submit requests for emergency assistance in the form of an emergency loan or funds from the [Critical Needs Fund](#).

The campus also has a food pantry open to the entire Purdue community: *The [ACE Campus Food Pantry](#)*

Policy on children in the classroom

Currently, Purdue does not have a formal policy on children in the classroom. This policy reflects our own beliefs and commitments to our students who happen to also be parents.

1. Children and/or babies are not allowed in the laboratories in CHAS.
2. Babies and/or children are welcome in lecture at any time.
3. For older children and babies, minor illnesses and unforeseen disruptions in childcare can put parents in a difficult position. Occasionally bringing a child to class to cover gaps in care is acceptable (but it is not meant to be a long-term childcare solution).
4. If you bring your child or baby to lecture in WTHR200, please sit close to the door (likely at the bottom of the lecture hall), so if your little one(s) need special attention and is disrupting learning for other students you may step outside until the need is met.

5. As instructors, we understand some (but not all!) of the struggles you are facing. We hope that you will feel comfortable disclosing your student-parent status to us and we are happy to problem solve with you in a way that makes you feel supported as you strive for a school-parenting balance.

Course Evaluation

Toward the end of this semester, you will be provided with an opportunity to give feedback on this course and your instructor. Purdue uses an online course evaluation system. You will receive an official email from evaluation administrators with a link to the online evaluation site and will receive a prompt to complete the survey when you login to Brightspace. Your participation is an integral part of this course, and your feedback is vital to improving education at Purdue University. We strongly urge you to participate in the evaluation system because it helps us improve the course!

Disclaimer

This syllabus is subject to change. You will be notified of any changes as far in advance as possible via an announcement on Brightspace. Monitor your Purdue email daily for updates

For details about other Purdue University policies, including academic integrity, class attendance and absence reporting, emergency, nondiscrimination, and disability services, see the course Brightspace page_

Determining your Course Grade, Spring 2024

The points for each of the assigned course activities for CHM 11100 are listed below. Before course grades are finalized at the end of the semester the following scores will be dropped:

- your lowest (1) Activities and Exploration score
- your lowest (1) ALEKS homework score
- your lowest (1) lab score (excluding Excel Lab 1)
- your lowest exam score (or ½ of your score on the final exam)
- your lowest (1) quiz score

The total number of points for CHM 11100 will be distributed as follows:

Homework	160 pts	(best 12 of 13 @ 13.33 pts. each)
Quizzes	50 pts	(best 5 of 6 @ 10 pts. each)
Labs	270 pts	(Excel lab 20 pts, best 10 of 11 remaining labs @ 25 pts. each)
Activities and Explorations	120 pts	(best 6 of 7 @20 pts. each)
Exams	300 pts	(3 @ 100 pts each)
Final Exam	200 pts	
<u>Surveys & in-class work</u>	<u>100 pts</u>	
Subtotal	1200 pts	
<u>Drop (1) exam or ½ final</u>	<u>-100 pts</u>	
Total.....	1100 pts	

Up to 15 points of extra credit assignments may be made available throughout the semester.

After the Final Exam your course grade will be based on the following scale:

- A: 1000 pts and above
- B: 900 – 999 pts
- C: 800 – 899 pts
- D: 700 – 799 pts
- F: 0 – 699 pts

If you fail to complete more than 2 lab projects (not including the Excel Lab) by missing laboratory or being asked to leave laboratory, your final grade will be dropped one letter grade for each subsequent incomplete lab. (If you fail to complete 3 labs, your letter grade will drop by one full letter, if you fail to complete 4 labs, it will drop by two full letters.)

Save all returned graded assignments until after you have received your course letter grade for CHM 11100. To resolve any discrepancies, your assignments will need to be reviewed. At the discretion of the professor there may be extra credit assignments in the course.

Colors indicate Modules

- Module 1: Fundamentals, atoms, bonding, and naming (4 wks)
- Module 2: Structure, concentration, reactivity (6 wks)
- Module 3: How much can be made and how much energy is absorbed/released? (5 wks)

Week	Date	Lecture Topic	Reading (textbook)	Laboratory (Top Hat laboratory manual)	Other
1	Week of Jan 8	Course overview Scientific Notation; Significant Figures; Unit Conversion Practice (<i>You are responsible for sections 1.1-1.7; 2.1-2.2.</i>)	1.8-1.9; pp 18-27 2.1-2.2; pp 42-48	Check-in and Lab 1 Check In / Introduction to Excel	
2	Week of Jan 15	Atomic Number & Mass; The Periodic Table EM Radiation; Orbitals; Electron Configuration; Valence & Core Electrons	2.3-2.4; pp 48-52 7.1; pp 275-278 7.8-7.9; pp 301-309	No Lab	Quiz 1
3	Week of Jan 22	Periodicity of Electron Configurations; Electron Configuration of Ions Atomic & Ionic Size; Ionic & Covalent Bonding	8.2; pp 329-333 8.3; pp 333-337	Lab 2 Intro to Lab Techniques, Part I	
4	Week of Jan 29	<i>Naming Molecular/Ionic Compounds, Acids Practice</i> Ionic & Covalent Bonding; Electronegativity	2.5-2.7; pp 52-66 9.1-9.2; pp 367-370 9.4-9.5; pp 375-380	Lab 3 Intro to Lab Techniques, Part II	Quiz 2
5	Week of Feb 5	Lewis Structures Resonance; <i>Lewis Structure Practice</i>	9.6; pp 381-384 9.8; pp 387-389	Lab 4 Measuring Density	02/08: Exam 1 @ 8:00 PM

Week	Date	Lecture Topic	Reading (textbook)	Laboratory (Top Hat laboratory manual)	Other
6	Week of Feb 12	Polarity; <i>Shapes of Molecules Practice</i> Atomic & Molecular Mass; Avogadro's Number; Moles	10.1; pp 411-420 10.2; pp 421-426 3.1-3.3; pp 79-86	No Lab	Quiz 3
7	Week of Feb 19	Using Moles; Percent Composition <i>Grams/Moles/Molecules Practice</i>	3.5; pp 88-91	Lab 5 Isolation of Fat from Cookies and Potato Chips	
8	Week of Feb 26	Solutions; Concentration and Dilution How Light Interacts w/Matter; Spectroscopy	4.1; pp 122-124 4.5; pp 147-151 12.3; pp 517-518 See PDF files	Lab 6 Molecular Geometry and Polarity	Quiz 4
9	Week of Mar 4	Chemical Reactions and Equations Precipitation Reactions; Net Ionic Equations	3.7; pp 93-98 4.2; pp 125-129	Lab 7 Electrolytes and Non-electrolytes	
10	Week of Mar 11	No Lecture Spring Break		No Labs Spring Break	
11	Week of Mar 18	Acid-Base Reactions; Redox Reactions	4.3-4.4; pp 130-146	Lab 8 Chemical Interactions	03/20: Exam 2 @ 8:00 PM
11	Week of Mar 18	Quantities in Chemical Reactions	3.8; pp 98-102		

Week	Date	Lecture Topic	Reading (textbook)	Laboratory (Top Hat laboratory manual)	Other
12	Week of Mar 25	Solution Stoichiometry <i>Solution Stoichiometry Practice</i>	4.7; pp 153-156	Lab 9 Techniques to Determine Concentration - Titrations	Quiz 5
13	Week of Apr 1	Energy Changes in Reactions Stoichiometry and Energy Problem Solving	6.1; pp 231-234 6.4; pp 242-244	Lab 10 Techniques to Determine Concentration - Spectroscopy	
14	Week of Apr 8	Specific Heat and Calorimetry	6.5; pp 246-247 pp 249-252	Lab 11 Online Thermochemistry Lab	Quiz 6
15	Week of Apr 15	<i>Stoichiometry Practice</i> Limiting Reactants	3.9; pp. 102-1-6	Lab 12 Chemical Reactions and Heat Changes	04/17: Exam 3 @ 8:00 PM
16	Week of Apr 22	Limiting Reactants; Percent Yield <i>Limiting Reactant/Percent Yield Practice</i>	3.10; pp. 106-109	Mandatory Lab Checkout (safety goggles and proper attire required!)	
17	Week of April 29 – May 4	Final Exam (date / time to be announced midsemester by university)			