

Course Information

- Semester and Year: Fall 2026
- Course Title: Fundamental Chemistry with Lab
- Course Prefix and Number: CHM130AA
- Section Number: 18429 with Lab Section 18430
- Credit Hours: 4
- Start Date: August 24, 2026
- End Date: December 18, 2026
- Room Number: N/A
- Meeting Days and Times: Mondays and Wednesdays
- Meeting Times: 5:30PM–6:50PM & 7:00PM–8:20PM on both days
- Class Format: Live Online ([Review approved MCCCDC class formats](#))

Instructor Information

- Instructor: Dr. Relindis Mawo
- Email: relindis.mawo@scottsdalecc.edu
- Phone: (480) 425-6705
- Office Location: Natural Sciences (NS) 124
- Office Hours: Mon 10:30AM–11:30AM
by appointment, in-person or virtual*.
Tue, Thu 12:30PM–1:30PM, in-person, NS 124
Wed 4:00PM–5:00PM, virtual* meetings only.
**Virtual meetings will be held through the Zoom
Office link in Canvas (preferred) or through
[my WebEx personal room](#)*

Course Description

A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem-solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. [District Curriculum Site](#).

Prerequisites and/or Corequisites

A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady-Quantitative Reasoning, Algebra and Statistics score of 70 or higher, or an EdReady-College Algebra score of 80 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair.

Course Competencies

The Official Course Competencies and Official Course Outline can be found at the [District Curriculum Site](#) Enter "CHM130AA" in the Quick Course Search field.

MCCCD Official Course Competencies

1. Employ fundamental chemistry terminology, symbols, and formulas. (I–X)
2. Draw connections between fundamental chemistry phenomena and observations. (I–X)
3. Use theories to predict structure and behavior of chemical compounds. (I–X)
4. Predict the properties of matter based on the materials' classifications and structure. (I, III, IV, V)
5. Perform fundamental chemistry calculations involving scientific measurements. (II, VI–IX)
6. Predict the qualitative outcomes as matter undergoes physical and chemical transformations. (V, IX)
7. Calculate quantitative characteristics of matter related to properties and composition. (VI)
8. Predict the quantitative outcomes as matter undergoes physical and chemical transformations. (VI)
9. Demonstrate safe laboratory conduct. (X)
10. Manipulate scientific equipment. (X)
11. Summarize experimental findings. (X)

MCCCD Official Course Outline

- I. Fundamental chemistry concepts
 - A. Metric system
 - B. Uncertainty in measurement
 - C. Significant figures
 - D. Meaning of mass
 - E. Meaning of volume
 - F. Meaning of temperature
 - G. Physical states of matter
 - H. Particle model of matter
 - I. Conservation of mass
 - J. Proportional reasoning
 - K. Kinetic Molecular Theory
- II. Fundamental chemistry calculations
 - A. Dimensional analysis

- B. Rounding
 - C. Density
- III. Atoms
 - A. Bohr model
 - B. Atomic notation
 - C. Subatomic particles
 - D. Periodic table structure
 - E. Periodic law
 - F. Classification of elements
 - G. Ions
 - 1. Monoatomic
 - 2. Polyatomic
- IV. Compounds
 - A. Nomenclature
 - B. Covalent bonding
 - 1. Lewis structures
 - 2. Valence Shell Electron Pair Repulsion (VSEPR)
 - 3. Polarity
 - 4. Intermolecular forces
 - C. Ionic bonding
 - D. Acids
 - E. Molar mass
 - F. Solubility
- V. Predicting reaction products
 - A. Combination / Synthesis
 - B. Decomposition
 - C. Single replacement
 - D. Double replacement / precipitation / neutralization
 - E. Combustion
 - F. Gas-evolving
- VI. Stoichiometry calculations
 - A. Mass-mass
 - B. Limiting reactant
 - C. Percent yield
 - D. Solution stoichiometry
 - E. Mass percent composition (from a chemical formula) calculations
 - F. Empirical formula from experimental data calculations
 - G. Moles of compound to moles of constituent element calculations
 - H. Mass of compound to mass of constituent element calculations
 - I. Titration calculations
- VII. Solutions
 - A. Solid in a liquid
 - B. Molarity calculation
 - C. Mass percent composition of solutions calculations
 - D. Dilution calculations
- VIII. Acid / base chemistry
 - A. pH - $[H^+]$ conversions
 - B. Arrhenius acids and bases
 - C. Bronsted/Lowry acids and bases
 - D. Buffers
- IX. Energy
 - A. Enthalpy of reactions
 - B. Heat capacity / temperature calculations

- C. Heat of vaporization / heat of fusion calculations
- X. The chemistry laboratory
 - A. Chemical safety/hygiene
 - B. Chemical terminology
 - C. Presentation of data
 - D. Laboratory instrumentation
 - E. Scientific measurement
 - F. Elements of experimentation
 - G. Laboratory equipment

General Education & Institutional Learning Outcomes

General Education provides foundational learning experiences that contribute to academic and career success. It is reflected in [Scottsdale Community College's Institutional Learning Outcomes](#): Arts & Humanities Awareness, Career Readiness, Critical Thinking and Problem Solving, Effective Communication, Information Literacy, and Social Responsibility.

Students who take CHM130AA will learn about important principles of general chemistry, which relate to critical thinking and problem solving. Students will also enhance their communication and career readiness skills.

Program Learning Outcomes

Credit-bearing courses at Scottsdale Community College can count toward the completion of a degree or certificate program. Each program has Program Learning Outcomes, which are learned assets that students can claim to have acquired by completing their academic or occupational program at SCC. Program Learning Outcomes can be found on the [Degrees and Certificates page](#) of the SCC Website. For each degree, look under "What You'll Learn."

This course is a General Education course that is foundational to many degree programs and a key component of the Arizona General Education Curriculum (AGEC) certificate program. This course fulfills a Natural Sciences (Quantitative) - [SQ] requirement for the AGEC.

This course most directly applies to the Associate in Science, Emphasis in Chemistry with the following Program Learning Outcomes (PLOs):

Chemistry PLOs

1. Explain chemical phenomena utilizing a variety of different representations, such as numerical, graphical, symbolic, and verbal.
2. Evaluate information for relevance, usefulness, and applicability to support critical thinking.
3. Communicate quantitative and qualitative chemical concepts using appropriate terminology and notation.
4. Use patterns and relationships to make generalizations and predictions.
5. Apply appropriate chemical principles and reasoning to solve problems.

6. Demonstrate the interconnectedness of chemical and mathematical ideas and how they build on one another.
7. Analyze data to draw reasonable conclusions based on chemical principles.
8. Utilize technology for experimentation, data collection, and analysis.
9. Adhere to standard safety protocols when performing experiments and collecting data.
10. Apply relevant knowledge, skills, and habits of mind to seek career opportunities in the field.

Texts and Course Materials

1. COURSE TEXTBOOK: The following are Recommended, but Not Required):
 - a. “*Introductory Chemistry*” 2nd, 3rd or 4th edition by Nivaldo J. *** If you wish to own your own copy, you can save a lot of money by ordering the 2nd or 3rd edition of the book online via ebay.com or amazon.com.
 - b. “*Chemistry: Atoms First*” 2nd edition by Openstax. This is an Open Educational Resource (OER) textbook available **at no cost** at this link: [Chemistry: Atoms First 2e - OpenStax](#)
2. LAB TEXTBOOK: Lab handouts will be posted in Canvas during the semester; there is no lab manual to purchase for this CHM130AA Live Online Section.
3. LAB KIT: Your lab fee will cover a **one-semester rental cost** of a lab kit from SCC. You must return the lab kit to SCC at the end of the semester or at the time of withdrawal if you choose to withdraw from the course. **You will be billed for the actual cost of the kit if you don't return the kit to the chemistry stockroom at the end of the semester or upon withdrawal from the course.**

You will need to have your lab +kit by the end of the second week of the semester; therefore, I urge you to schedule a pickup appointment with the SCC Chemistry Stockroom immediately so that you can get your lab kit in time for your “**Significance of Measurements**” lab scheduled for 09/09/2026. **DO NOT DISCARD the box in which your kit arrives as you will be required to use that specific box as equipment in the “Significance of Measurements” lab.**

Please contact the SCC Chemistry Stockroom through:
Claire Abbruscato (claire.abbruscato@scottsdalecc.edu, phone 480-423-6105)

Again, you will need equipment and reagents from your kit on week 3 (specifically 09/09/2026) to complete the “Significance of Measurements” lab.

4. **LABORATORY BALANCE:** A **high precision** laboratory balance that weighs **at least 100 grams to at least 2 decimal places** (i.e., at least to the 100th place). A balance is not included in your lab kit, so you will need to buy yours. You can get one from Amazon for about \$35 or less. **You will need your lab balance on week 3 (specifically 09/09/2026) to complete the measurement lab.**

Here are links to affordable sample **high precision** balances for your lab kit:

- Sample Balance 1: [Milligram Scale with USB Supply, NEWACALOX Reloading Scale 100 x 0.001g, High Precision Portable Multifunction Lab Powder Scales with Calibration Tare Weights, Tweezers, Weighing Pans](#)
- Sample Balance 2: [Digital Milligram Scale, 100g x 0.001g NEWACALOX Reloading High Precision Jewelry Scale](#)
- You might also find a small balance at Fry's that goes to 3 decimals and can weigh 100 grams for around \$15. Look in the section where they sell can-openers, etc.

5. **GLOVES:** Wearing Personal Protective Equipment (PPE) while conducting experiments is very important. Gloves are required for your at-home labs. They are not included in your lab kit because we couldn't predict each student's size. You will need to purchase some for yourself and have them ready by week 3 of the semester.
6. **Molecule modeling kit.** (approximately \$20) for Chapters 9 and 10 and their associated labs.

The following is a Link to a sample [Basic Molecule Modeling kit](#) or a ["more advanced" molecular modeling kit](#) if you plan to take higher level chemistry classes. There are several on the market; these are just examples.

7. **Deionized water**

[MAXTITE Type II Deionized Water - Laboratory Grade \(1 Gallon\): Amazon.com: Industrial & Scientific](#)

8. **One 9-volt battery**



These are just examples; other brands will work just fine.

9. **Lemon or lime juice, one 2.5 oz container.** See example below:



10. One set of **fine tip (NOT chisel tip) water-soluble markers** (e.g., Mr. Sketch®, Mondo™, Vis-à-vis®, Crayola®, etc.,) **with at least 10 assorted colors.** You will need these for Paper Chromatography.

11. **SCIENTIFIC CALCULATOR:** A scientific calculator is one that allows you to enter and display numbers in scientific notation. If you need to purchase one, you can find a good one for less than \$15. Graphing calculators are also permitted. Ask me for advice if you need it.

12. **GOGGLES:** A pair will be included in your Lab Kit.

Note: *Goggles must be worn at all times and safety precautions followed while conducting experiments. SCC is not responsible for any damage caused while conducting experiments.*

13. **CANVAS:** We will use the Canvas Learning Management System (LMS) for a variety of purposes. Please Log into Canvas and familiarize yourself with the site and our Course using the [MCCCD Canvas Log in link](#).

14. **SCIENTIFIC CALCULATOR:** A scientific calculator is one that allows you to enter and display numbers in scientific notation. If you need to purchase one, you can find a good one for less than \$15. Graphing calculators are also permitted during class. Ask me for advice if you need it.

15. **GOGGLES:** We will provide you with protective eyewear for use during the class. At the end of the class, you will return the eyewear in undamaged condition. If you fail to return the eyewear or the eyewear is excessively scratched or damaged from mishandling, you will be charged a \$7.00 replacement fee.

Note: *Goggles must be worn at all times and safety precautions followed while conducting experiments. SCC is not responsible for any damage caused while conducting experiments.*

CANVAS: We will use the Canvas Learning Management System (LMS) for a variety of purposes. Please familiarize yourself with the site and our Course in Canvas by using the [MCCCD Canvas Log in link](#).

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the [Student Regulations](#) page of the Maricopa Community College District website.

Instructional Methods

This class is taught from an understanding of student learning. I will define student learning as an actual understanding of underlying concepts and not just memorization of random facts or equations. I will strive to give each student the opportunity to make the same logic jumps that were made throughout the history of chemistry. This class will challenge you in ways you may not be familiar with and will prove to be valuable as you continue to learn in your career and in life.

My goal is to be your guide and facilitator in the learning process. I am responsible for allowing appropriate learning experiences to occur, probing your thoughts, and fostering positive classroom discussion. Your responsibility is to be an active participant in the process, engaging fully in the work of constructing knowledge.

Be ready to participate in small-group and whole-class discussions, regular homework, quizzes, and reading assignments. Course materials, homework, quizzes and exams will be posted on Canvas. Some quizzes and exams may be completed on Canvas using Respondus Lockdown Browser and Monitor. Lab reports, homework, journal reflections and some parts of exams will be submitted via file upload on Canvas.

Participation & Group Work Expectations

Attendance and Participation is a requirement and recorded and graded! To earn attendance and participation points, students must log into class on time, turn on their computer cameras/webcams during the Live Online session and speak/answer questions when called to do so. If occasionally a student needs to turn off their camera due to something going on in their background or with them that they do not want others to see or that would be disruptive to the class, they must let the instructor know prior or as soon as possible after the fact in order not to be marked absent. Informing the instructor does not automatically translate to an excuse of the brief absence during the class period; I will evaluate the reason and determine if partial credit can be awarded. Complete absence from class equals zero attendance and participation points and there is no make-up provided, regardless of the reason of the absence. This is because we can't go back in time to participate in the interactions that took place during the lesson that was missed. In addition, attendance and participation points accrued only go to help students' grades as extra credit but do not deduct from their grade in any way.

Students are expected to come to class prepared. If one group member comes unprepared, then the entire group will be impacted. Students are expected to work together, assist and

teach each other. Students should not expect the instructor to do all the talking. Students will be expected to participate in class discussions and learn from each other by explaining their thought process so that any points of misconception can be clarified with guidance from the instructor and their peers. For more information, please consult the research article, "[Large-scale comparison of science teaching methods sends clear message.](#)"

Cell Phone Policy

There will be times that you will use your cell phone to research a topic in class or lab. Appropriate use is understood and acceptable. However, personal or social use of cell phones during lectures is a distraction and, during lab, is a danger. Cell phones are not allowed during quizzes/tests/exams.

Make-up Policy

Missing class is strongly discouraged. It is your responsibility to be prepared, attend class, complete, and submit assignments by the due dates found in the syllabus and on Canvas. I am not inclined to give make-up quizzes or exams unless you have a valid excuse with written documentation, and you have spoken with me beforehand. You will receive no credit for any assignment that closes without you submitting it. For labs requiring the use of the lab kit, while pre-lab and post-lab work can be completed on-your-on-time, the hands-on lab investigations must be completed during the scheduled Live Online Sessions. Only one make-up lab may be allowed per semester. If you happen to miss a lab due to a valid, documented reason, contact your instructor within 24 hours of missing the lab or as soon as possible to schedule a make-up lab.

Late Work Policy

Time management and meeting deadlines are some of many important workforce skills. Part of college is learning these skills. **You will lose 10% per day for every day an assignment** (homework, quiz, journal reflection or lab report) **is late** until the answer key is available or the assignment has been graded and feedback released to students in the course. If you submit your assignment after the key has been published or corrected scripts have been returned to students in the course, you will receive a zero. Exams are not eligible for late submission.

Attendance Policy

Attendance is required for this course! Attendance will be recorded for all class and lab sessions. To be considered in attendance:

- Engage in class discussion/group work: You will often work together in assigned groups, allowing you to converse with your group and, at times, your instructor. Converse with your group and actively use whiteboards and any other idea-sharing technology!

- Engage in whole-class discussions: Participate and share ideas, questions, and concerns with the instructor and/or the class.

Failure to follow these guidelines would result in an absence, even if you attended class.

- If you show up late to the lab, you will miss key procedural and safety information and will not be permitted to participate in that day's lab.
- If you miss class, it is your responsibility to seek knowledge on the content that you missed and what announcements were made.
- If you have 3 absences in a semester that are not "official absences," I have the option to withdraw you (with a grade of W or Y, depending).
- If you miss an exam and I don't hear from you by e-mail (or phone if you can verify email is not possible) with a valid excuse within 24 hours after the exam ends, you may be given a 0% for that exam, and I may withdraw you (with a grade of W or Y, depending).

If you have any special needs or considerations related to attendance, contact your instructor immediately. I understand that life is happening all around us. So just notify me before or as soon as possible if something comes up in your life or if you have concerns that attendance will be an issue. I will work with students who will work hard to learn.

Consult Section 2.3.2 of [MCCCD attendance policies](#).

Instructional Contact Hours and Minimum Course Expectations

Instructional contact hours (Seat time) are the weekly time students spend directly learning with their instructor or course activities. These activities include, but are not limited to, lectures, discussions, labs, group work, and viewing recordings. This is a four (4) credit-hour course with six (6) hours (3 hours in lecture and 3 hours in lab) of direct instructional contact hours per week.

Minimum course expectations include instructional contact hours plus the number of hours students are expected to spend outside of class (weekly) completing coursework. For every hour of direct instruction time, students are expected to spend a minimum of two hours of out-of-class work. This course will require at least twelve (12) hours on learning activities (homework, lab reports, etc.) outside of class in addition to six (6) hours of direct instructional contact hours for a total minimum of eighteen (18) hours per week on academic activities in the course. Students are encouraged to use the [Time Management Calculator](#) to help estimate their weekly time commitment for classes.

Significant Time Demand

This course, without a doubt, will put significant demands on your time. In addition to 6 instructional hours (3 hours for lecture and 3 hours for lab), expect to spend about 8-12 hours each week *outside of lab and lectures* and even more during weeks with exams. For students who have Jobs and/or Families, and/or A Life Outside of School, this can be even more challenging. Make the time **NOW** in your schedule to review the topics covered in class and to adequately complete practice problems, homework, quizzes, reflection journals, lab reports and to seek out any help you will need. Chemistry is a cumulative subject, meaning that each new topic builds on the foundation of the previous topics. Do NOT let yourself get behind; it gets extremely difficult to catch up if you are significantly behind!!

A large part of **being a College Student** is learning how to solve problems independently and in a professional manner. This includes finding out how **you** learn and using this knowledge to *find the material and information that you need* to accomplish the task at hand. This will not be the same for every student.

Students have the option to use the resources made available to them in class, Canvas, NS Tutoring Center, etc. ***It is the student's responsibility to determine what they need to complete the learning process for concepts and to actively seek it out.*** It is not the responsibility of the instructor to anticipate what every student may need for concepts covered in this course.

Which leads me to a discussion regarding:

Academic Entitlement: behavior which impedes student's academic success. Examples include, but are not limited to:

- Knowledge should be acquired with little to no effort.
- Others will offer all the necessary information for learning.
- Low grades result from problems associated with the instructor or the system.
- Confrontational and/or disrespectful interactions with the instructor or others in the class are acceptable.

Communicating with Your Instructor

A word about etiquette when contacting your instructor: Be sure to act as a professional in all **correspondences**. Part of college is learning skills that are important in the workforce and being able to communicate and resolve issues in a non-conflict manner is one of those skills. I understand the frustration and stress that comes from taking college level chemistry courses. If you have an issue, address it in an email in a respectful tone and state your thought process in a clear and concise manner.

Be aware: your instructor teaches several classes and subjects and so may not know what you mean when you email and ask: "Do you know what's due on Tuesday?" or "Can you tell me what I did wrong on #15?" Before sending an email, check your other resources that have been provided.

If you send an email to your instructor, do so from your official Maricopa Gmail. The email should include the **subject of your email, your course and section number, class days and time, and your name as it is found in the class roster.**

Example, "Hello---, My name is _____. I am in your _____ class on _____." before launching into your question. Background and context help. If you leave it for me to figure out what you are talking about and which class you are from, it will take me longer to get back to you. It will be faster for you to check what has been provided before contacting me.

Course Technologies

View the [Accessibility Statements & Privacy Policies](#) of the technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- Student Maricopa Gmail Account
- Maricopa Open Educational Resource Learning System (MOER)

Synchronous Communication Tools

This course implements the use of web conferencing and/or other synchronous course tools.

- Webex
- Canvas Conferences
- Zoom

Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

- YouTube

Student Assignment Tools

This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- Google Products
- Microsoft Office 365
- ScreenPal
- Vernier Graphical Analysis

Exam Proctoring Tools

Respondus LockDown Browser and Respondus LockDown Browser with Monitor

Respondus LockDown Browser secures online exams by locking down the testing environment within Canvas. LockDown Browser prevents access to other applications and many common functions on a computer while an assessment is active. Some of the exams on this course require the use of this software. A LockDown Browser download link will be provided within the Canvas course. For further information, see the [Student Resources](#) page provided. For your reference, read the [System Requirements for LockDown Browser](#) and [LockDown Browser Terms of Use](#).

Please note that Respondus LockDown Browser with Monitor requires a room scan prior to all testing sessions.

Plagiarism Checker Tool (Turnitin)

Turnitin is a plagiarism check tool that matches text to a vast database of sources, including the internet, published works, commercial databases, and student work submitted to Turnitin in institutions internationally. Students must submit designated papers to Turnitin when instructed. Information and instructions for Turnitin are provided in the course. For your reference, read the [Turnitin Terms of Service](#).

Accommodations for Online Proctoring

If you have approved DRS accommodations, they still apply during online proctored exams (e.g., ProctorU or MonitorEdu). Some setups may need advanced coordination, so please contact your instructor as soon as possible to ensure everything is in place.

Generative Artificial Intelligence (AI) Policy

The World Economic Forum defines generative AI as “a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more.”

Some examples of generative AI tools include but are not limited to: ChatGPT, Google Gemini, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

Some Generative Artificial Intelligence (AI) Allowed in Specific Circumstances

There are situations and contexts within this course where you may be permitted to use generative AI tools. In these cases, specific guidelines will be provided in the assignment details. If you are unsure if the tool or website you are using is a generative AI tool or if it is permitted on a specific assignment, please contact the instructor for further clarification before submitting your work.

AI tools may **NOT** be used when completing the following assignments:

- Learning Journal Reflections
- Quizzes
- Exams

If you wish to try AI tools, they may be used to support (not replace) your learning when completing Lab Work and Homework assignments (worksheets). If you choose to use an AI tool, you will need to provide the following in the assignment:

- Indicate what you used the AI tool for
- Clearly indicate what content and/or work the AI provided
- Provide an analysis or critique of the content and/or work the AI tool provided

Grading Standards and Practices

Grade Scale

Letter grades are assigned on the following tentative scale:

Letter Grade	Points Range
A	88 – 100%
B	78 – 87.9%
C	65 – 77.9%
D	50 – 64.9%
F	0 – 49.9%

Table 1: Letter grade ranges

***Note:** The grading scale is not the typical “10-point scale,” so you don’t have to ask for your grade to be rounded up. For example, if you want to earn an A, shoot for an overall 90%, that way, if you end up at 88.4%, your grade is still above 88% and is an A. Anything below 88%, however, will not be rounded up.

Assignment Categories (Weighted)

Assignment Name	Percent of Grade
Departmental Nomenclature Test	10%
Lecture Quizzes	10%
Worksheets/Homework	15%
Lab Work, including Lab Reports & Lab Exams	25%
Lecture Exams (x 4)	40%
TOTAL:	100%

Table 2: Assignment Categories (Weighted)

Explanation of Assessment Categories:

Nomenclature Quiz, 10% of Overall Grade:

All students in CHM130 at SCC must pass a nomenclature quiz to ensure understanding of the particle nature of matter, naming, and formulas. This quiz will be available after nomenclature has been discussed in class. It will be given during the lab midterm exam. If you don’t pass the quiz during this first attempt, you may take the quiz once a day as needed until you achieve a

passing score of at least 16 out of 20 or 80%. A passing score is worth full points in the gradebook if completed by the due date.

Although the number of attempts on the Nomenclature Quiz is unlimited, they will only be made available in blocks of 3. For every 3 consecutive attempts that don't yield a passing grade, you must visit the NS Tutoring Center for Tutoring Help before the next block of 3 attempts will be made available to you.

Deadlines for the Nomenclature Test:

- *Pass the quiz by the end of week 11, specifically by **Friday, November 6** and earn a 1% bonus in overall course grade (for example, end of semester grade would increase from 79% to 80%).*
- *Pass the quiz by the end of week 13 (**Friday, November 20**): earn full credit towards overall course grade.*
- *Pass the quiz by the end of week 16 (**Friday, December 11**): earn credit for the quiz but receive a 2% deduction in overall course grade (for example, end of semester grade would reduce from 79% B to 77% C).*
- *Note! Not passing this quiz will automatically drop your overall course grade by 10% (for example, you would have passed the class with a 72%, but not passing the nomenclature quiz reduces your overall course grade to a 62% D). So please take this seriously and get help if needed!*

Lecture Quizzes, 10% of Overall Grade:

Quizzes over each chapter/activity's material are provided in Canvas. You should complete them as promptly as possible to check your understanding. You may retake each quiz once before the deadline to improve your learning and your score.

Syllabus Acknowledgement and Getting-To-Know You Quiz: In order to ensure that you can access the course syllabus and class materials, I have set up a Syllabus Acknowledgement and Getting-to-Know-You Quiz. It can be found on Canvas in the Modules Section. These are short questions that allow me to evaluate the math abilities and chemistry readiness of students in the class and give me the opportunity to learn a little bit about you early in the semester. This quiz will be due within a week of the class start date.

Homework, 15% of Overall Grade:

Homework containing conceptual questions and practice problems are assigned to help you develop and use the major concepts & models we are developing. Homework must be submitted electronically in Canvas by the posted due date, regardless of absences.

For Canvas homework, **use the "Equation Editor" in Canvas to show your work** for any free response question that requires calculations. Any Free Response question that requires calculations will be given no credit if your work is not shown at all or if the work is shown but not in the proper format for using Equation Editor as discussed in class. **To access Canvas Equation Editor, click on "Insert" then "Equation" [Square Root Sign].**

Lab Work, 25% of Overall Grade

The lab reports in this course are designed to help you develop this skill. More information and the specifics of each lab investigation will be provided in the corresponding Module in Canvas.

- a) Before arriving to conduct each lab, read the lab handout, watch any associated videos, and answer any assigned pre-lab questions.
- b) During each lab meeting, you will be expected to engage with the investigation and actively participate with your group. Document your work in your report sheet as you conduct the investigation.
- c) After the lab investigation, you will present and analyze your findings by completing a lab report or report form. Answer any post-lab questions assigned. Your participation in the lab, asynchronous work after the lab meeting, and your report form will be assessed after the posted due date.
- d) For labs that use the Lab Kit, you will be required to submit **a lab video of your at-home-lab (<2-5 min)** along with your lab report. In this video, include **(IN YOUR OWN WORDS - NOT READ from the lab handout)**
 - *Beginning* - **show** your lab set-up and **summarize** the lab. (YOU MUST SHOW YOU UNDERSTAND THE LAB CONCEPT – do not read it from the lab handout)
 - *Middle* – **show** your data collection
 - *End* – **show** the data collected and **summarize** your findings
 - **Note:** *you can submit pictures* embedded in your word document (not individual files submitted one at a time) in the appropriate place in your lab report but you must still submit a video of the beginning and the summary of your findings to receive credit.
- e) Lab report work is completed *individually* and must be submitted electronically in Canvas by the posted due date. You will not receive credit for any part of the lab you did not take part in.

Lab Exams: Two Lab exams, a Lab Midterm and a Lab Final, will assess your knowledge and understanding of the lab investigations. Exams consist of multiple choice and short answer questions (completed on canvas Live Online during class time). You will need Canvas Equation Editor to show your work where appropriate.

Lecture Exams, 40% of Overall Grade

Four lecture exams (three midterm exams and a final exam) will be given during the semester. None of the exams are optional. You will be provided with a periodic table and reference sheet for each exam.

Midterm exams are cumulative. These may include multiple-choice questions, short-answer, and/or free-response questions.

During Final Exam Week, students will take a comprehensive final exam that covers all the material learned during the course.

Additional Exam information:

- All exams must be taken to avoid being withdrawn from the course.
 - If you are going to miss an exam due to an excused absence, please inform the instructor at least 2 weeks prior and include documentation.
 - If you miss an exam for an unexpected reason, you must contact the instructor within 24 hours of the exam.
- *Note: If health protocols dictate that any exams be given online, exams may be completed during WebEx meetings and administered through Canvas. **Any navigating away from the Canvas quiz Exam to a different browser window, to your computer desktop, or to your phone (as noted by Canvas or Responsdus) will result in a “0” for individual questions and/or the entire exam.**
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LECTURE AND LAB SCHEDULES

CHM130AA Fall 2026 Course Schedule (Tentative – I will update if changes occur)¹

Week	Day/Date	Lecture/Discussion and Lab Investigation Topic(s)
Week1	Mon 8/24	• Course Overview, Canvas & Syllabus, Culture Building Discussion • Chapter (Ch1) Introduction; Scientific Method
Week1	Wed 8/26	• Ch2: Measurements and Significant Figures • Discussion Board Introductions Due • Lab 1 Safety in the Chemistry Lab and Lab Equipment Due • How to Submit Your Video
Week2	Mon 8/31	Ch2 Measurements and Significant Figures <i>continued</i>
Week2	Wed 9/2	• Ch3 Matter and Energy • Getting to Know You, Syllabus, and Ch1 Quiz Due • How to Submit Your Video Due
Week3	Mon 9/7	Observance of Labor Day, No Class
Week3	Wed 9/9	• Ch3 Matter and Energy <i>continued</i> • Lab 2A States of Matter (Online Lab on Your Own Time) • Lab 2B Significance of Measurement • Ch2 Homework & Quiz Due

¹ Legend: Turquoise - Lab Investigations; Red – Homework, Quizzes and Lab Report Due Dates; Yellow - Exam Dates

Week	Day/Date	Lecture/Discussion and Lab Investigation Topic(s)
Week 4	Mon 9/14	- Ch4 Atoms and Elements - Ch3 Homework & Quiz Due
Week 4	Wed 9/16	- Lab 3A Density of a Gas - Lab 3B Icy Hot - Labs 2A & 2B Reports Due - Ch4 Practice Quiz (using Lockdown Browser and Respondus Monitor) Due
Week 4	Friday 9/18	Ch4 Homework & Quiz Due
Week 5	Mon 9/21	- Ch5 Molecules and Compounds and Nomenclature - Lecture Exam 1 (Ch1 to Ch4), Proctored Live Online
Week 5	Wed 9/23	- Ch5 Molecules and Compounds and Nomenclature <i>continued</i> - Labs 3A and 3B Reports Due
Week 6	Mon 9/28	- Ch5 Molecules and Compounds and Nomenclature <i>continued</i> - Ch6 Chemical Composition, Moles, Percent Composition; Empirical Formula
Week 6	Wed 9/30	Lab 4 Writing & Naming Chemical Formulas (Nomenclature)
Week 7	Mon 10/5	- Ch6 Chemical Composition <i>continued</i> - Ch7 Chemical Reactions - Ch5 Homework & Quiz Due
Week 7	Wed 10/7	- Lab 5 Physical & Chemical Changes - Lab 4 Report Due
Week 7	Fri 10/9	Last Day of Student Withdrawal Without Instructor Signature
Week 8	Mon 10/12	- Ch7 Chemical Reactions <i>continued</i> - Lab 6 Empirical Formula of a Compound - Ch6 Homework & Quiz Due
Week 8	Wed 10/14	- Ch8 Reaction Stoichiometry - Lab 5 Report Due - Lab Midterm Exam (Labs 1-5), Proctored Live Online - Departmental Nomenclature Test, Proctored Live Online (+1% Extra Credit if passed)
Week 8	Fri 10/16	Lab 6 Report Due
Week 9	Mon 10/19	- Ch8 Reaction Stoichiometry <i>continued</i> - Ch7 Homework & Quiz Due

Week	Day/Date	Lecture/Discussion and Lab Investigation Topic(s)
Week 9	Wed 10/21	• Lab 8 Stoichiometry Experiments
Week 10	Mon 10/26	• Ch9 Electronic Structure • Ch8 Homework & Quiz Due
Week 10	Wed 10/28	• Ch9 Electronic Structure <i>continued</i> • Lab 7A Electrolytes, Conductivity of Substances (Online Lab on Your Own Time) • Lab 7B Conductivity of Substances (Hands-on) • Lab 8 Report Due
Week 11	Mon 11/2	• Ch10 Chemical Bonding • Ch9 Homework & Quiz Due
Week 11	Wed 11/4	• Lab 9 Separation of a Mixture • Labs 7A & 7B Reports Due • Lecture Exam 2 (Ch5 to Ch9), published Wed 11/4 and Due Sun 11/8
Week 11	Fri 11/6	Deadline to earn +1% on Departmental Nomenclature Test
Week 12	Mon 11/9	• Lab 10 Lewis Dot Structures • Ch10 Homework & Quiz Due
Week 12	Wed 11/11	Veterans Day, No Class
Week 12	Fri 11/13	Lab 9 Report Due
Week 13	Mon 11/16	Ch12 Solids, Liquids, Intermolecular Forces
Week 13	Wed 11/18	• Ch12 Solids, Liquids, Intermolecular Forces <i>continued</i> • Ch13 Solutions • Lab 11 Paper Chromatography • Lab 10 Report Due
Week 13	Fri 11/20	Deadline to pass Departmental Nomenclature Test
Week 14	Mon 11/23	• Ch13 Solutions <i>continued</i> • Ch12 Homework & Quiz Due
Week 14	Wed 11/25	• Ch13 Solutions <i>continued</i> • Ch14 Acids and Bases • Lab 11 Report Due • *Last day for Withdrawal (requires instructor signature)
Week 15	Mon 11/30	• Ch14 Acids and Bases <i>continued</i> • Lab 13 Acid-base chemistry, pH, and Buffers (Online Lab on Your Own Time)
Week 15	Wed 12/2	• Lab 12 Solution Stoichiometry (Acid-Base Titration) • Ch13 Homework & Quiz Due
Week 15	Fri 12/4	Ch14 Homework & Quiz Due

Week	Day/Date	Lecture/Discussion and Lab Investigation Topic(s)
Week 16	Mon 12/7	Lecture Exam 3 (Ch8 to Ch14), Proctored Live Online
Week 16	Wed 12/9	• Lab 12 Report Due • Lab 13 Report Due
Week 16	Fri 12/11	Last Chance to Pass Departmental Nomenclature Test with -2%
Week 17	Mon 12/14	Lab Final (Labs 6–13)
Week 17	Wed 12/16	Comprehensive Final Exam, Cumulative (Weeks 1-16), Proctored Live Online

Table 3: CHM130AA Fall 2026 Course Schedule

*Daily handouts and additional resources are located on [Canvas](#).

Academic Integrity

Cheating and other forms of academic dishonesty run contrary to the purposes of higher education and will not be tolerated in this course.

Academic dishonesty includes (but is not limited to):

- Plagiarism (the act of presenting the words, ideas, images, sounds, or other creative expression of others as your own).
- Copying answers or work done by another student (either on an exam or on out-of-class assignments).
- Allowing another student to copy from you.
- Using unauthorized materials during an exam.
- Googling and copying answers from the web.
- Submitting test questions to and getting answers from sites like Chegg.com and similar sites.
- Phoning or chatting with someone (friend, classmate, tutor etc.) about and during a test.
- Navigating away from a test session to a different browser window, a different computer or mobile device.

*Canvas keeps a log of your activity during quizzes and exams. These activities will be reviewed by the instructor. **Any navigating away from a test session to a different browser window or your computer desktop will result in a “0” for the test!!***

All forms of academic dishonesty will result in loss of all points for the graded material on which the transgression occurred.

- First offense:** a zero for the assignment that contains the plagiarized answer.
- Second offense:** a zero for the assignment and a report filed with the Dean of Students with a recommendation of all penalties applicable, up to and including, expulsion and a note on the student’s permanent record and the grade of F in the class.

Student/Instructor Interaction

In this course, you can expect regular and substantive interaction (RSI) that aligns with Scottsdale Community College's mission to provide challenging and supportive learning experiences. My commitment to your success includes the following:

- Being available during regularly scheduled student support hours as stated in the syllabus.
- Sharing weekly information about the course materials, including key information, explanations, examples, demonstrations, and resources during our in-person meetings. These will be supplemented by recorded videos and simulations.
- Providing group or individual feedback regularly on assignments.
- Promptly responding to student questions about the course sent via email or the Canvas inbox.
- Regularly posting announcements about the course content and activities.
- Monitor your academic progress and communicate concerns, as needed.

Response Time

Students can expect a response time of 24–72 hours, excluding weekends, for the instructor to respond to messages sent via the Canvas Learning Management System or email during business days. Students can expect assignments to be graded within two weeks of the assignment's due date.

Tutoring

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the [Tutoring & Learning Centers](#) page for detailed information on the five learning centers' hours and procedures.

If you need to work with a tutor outside regular hours, online and hybrid students now have access to a 24/7 online tutoring service called Brainfuse. To access Brainfuse and begin working with a tutor, visit the [SCC Online Tutoring Services Through Brainfuse](#) page.

Learning Tools and Your Privacy and Security

SCC utilizes a variety of software applications and web-based tools operated by third party vendors to support student learning. To allow student access to the application, site or tool, certain identifiable information may be required to establish a username or password and submit work and/or download information from these tools. Inherent with all internet-based tools, there is a risk that individuals assume when electing to use these tools, as they may place information at risk of disclosure.

To use learning tools responsibly, please observe all laws and the Maricopa Community College District [Student Conduct Code](#), such as copyright infringement, plagiarism, harassment or interference with the underlying technical code of the software. As a student using a learning tool, you have certain rights. Any original work that you produce belongs to you as a matter of copyright law. You also have a right to the privacy of your educational records. Your contributions to learning tools constitute an educational record. By using the tool, and not taking other options available to you in this course equivalent to this assignment that would not be posted publicly on the internet, you consent to the collaborative use of this material as well as to the disclosure of it in this course and potentially for the use of future courses.

College Policies

Students are responsible for the college policies included on [Student Regulations](#) page of the Maricopa Community College District website. Additional information about Scottsdale Community College can be found in [the SCC General Catalog & Student Handbook](#).

Academic Honesty

- Every student in this class is expected to produce his/her own original work.
- Plagiarism is unacceptable and is not tolerated.
- Plagiarism may result in being dropped from the course with a failing grade.

Plagiarism will result in actions as outlined in the Maricopa Community College District [Academic Misconduct Policy](#). Refer to the course policies section of the syllabus for additional course and department specific policies.

Code of Civility

Instructors are expected to be professional, courteous, respectful and empathic to students. They will:

- Begin and end class on time
- Be prepared for each class session
- Provide academic feedback and grade assignments in a timely manner
- Be available for individual consultation
- Clarify assignments and inform students of any adjustments to the class schedule

Students are expected to be reflective, courteous, respectful and empathic to classmates, instructor and other college staff assisting in their learning. Students are expected to arrive on time for class and remain until class has ended. The instructor should be notified in advance if there is a need to leave early. Students are expected to:

- Mute mobile phones before entering classroom
- Be in class and be on time
- Be prepared for class sessions
- Participate in class activities
- Follow instructions and complete assignments
- Keep up with and turn in assignments by due dates
- Put forth their best efforts
- Consider exchanging contact information with two classmates in order to keep current
- Ask questions when they don't understand
- Maintain knowledge of their grade status
- Contact instructor right away about concerns or situations that may interfere with their success in class

Diversity and a Safe Learning Environment

This classroom will be a safe learning environment for every individual as far as I am able to ensure that outcome. This means I will treat each student with respect, and in turn I expect respect to be given to the instructor and every individual in this course. Disagreement does not equal disrespect. We all bring different points of view, different personal values, different life experiences, and different personal preferences with us into the classroom. This diversity makes for great discussion, adds interesting dimensions to our interpersonal relationships, and is welcome in the academic arena. Though we celebrate our differences, I expect each student to respect the rights and needs of fellow classmates. Students cannot feel safe expressing themselves without the assurance that their ideas, attitudes and beliefs will be treated with respect.

Maricopa Learning Tool Disclaimer

Maricopa's Canvas Learning Management System employs Learning Tools Interoperability ("LTI") standards to enhance the learning experience. Examples of learning applications that use LTI specifications to connect to Canvas include simple communication apps (e.g. Conferences, Chat), learning environments for complex subjects like math or science (e.g., Pearson MyLabs), plagiarism detection apps (e.g., Turnitin), and other integration tools that may route users to another (vendor) website. MCCCDC provides links to these sites. Please be aware that when you use these links, you are leaving the Canvas environment and the protections MCCCDC has built in to assure compliance with Maricopa's Data Privacy and Security Standards and other legal compliance. At present, MCCCDC has been unable to verify that the vendors' software and systems conform to Maricopa standards in this or any other regard. Hence, there is some risk that instructors electing to use the products and services made available by these LTI vendors may place any student information shared with the vendor at risk of disclosure.

Student Conduct Code

The classroom is an educational learning environment where students are expected to engage in behaviors which are conducive to their own learning and the learning of their peers. To facilitate this, respect for self and others is mandatory and necessary. Should a student exhibit disruptive behavior and/or use profane language to the extent that it interferes with the learning environment, an academic consequence may be imposed. Any student found by a faculty member to have committed academic misconduct may be subject to the following academic consequences:

- Warning – A notice in writing to the student that the student has violated the academic code.
- Grade Adjustment – Lowering of a score on a test or assignment.
- Discretionary Sanctions – Additional academic assignments determined by the faculty member.
- Course Failure – Failure of a student from a course where academic misconduct occurs.

Further information see the Maricopa Community College District [Student Conduct Code](#).

Withdrawal Policy

- Students may initiate an official withdrawal from any course by submitting a withdrawal form with required signatures to the A&R office within published deadlines.
- Failure to attend any classes is not a guarantee for a refund or an excuse of debt incurred through registration. See the Maricopa Community College District [Refund Policy](#) for detailed information.
- Official date of withdrawal is last date of attendance as determined by student's withdrawal or as reported by the instructor.
- The official date of withdrawal will determine degree of refund, if any.
- Failure to file official withdrawal form within published deadlines can result in a failing grade and may affect refund of course tuition and fees.

Additional information on withdrawals is outlined in the Maricopa Community College District [Withdrawal Procedures](#).

MCCCD Policies

MCCCD is committed to providing a safe, fair, and accessible environment for all students. This includes laws such as the ADA and Title IX, which protect against discrimination. These statements explain your rights, available support, and where to go for help or more information. Please review the following policies:

Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act (ADA), the Maricopa County Community College District (MCCCD) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. physical, sensory, neurological, chronic illness, mental health, learning disabilities, or other health concerns). If you require accommodations for this course, please contact [Disability Resources and Services](#) (DRS) at your college.

Contact with [DRS](#) should be made as soon as possible to ensure academic needs are met in a reasonable time. Additional information can be found in the [Non-Discrimination Statement](#) and [MCCCD Non-Discrimination Policies](#).

[Addressing Incidents of Title IX Sexual Harassment](#)

Student Support Services

A variety of student services are accessible online. Services are free of charge to all registered SCC students. Refer to the **First Steps: Helping You Succeed** module in any one of your Canvas courses for more detailed information.

Canvas

- Check out the [Canvas Student Guide](#) for self-help with Canvas, or call 1-888-994-4433 for 24/7 support.

Note: It is essential that you set your notifications in Canvas before you get started with the course.

College Police Services

- SCC College Police Office Phone Number: (480) 423-6175
- SCC Emergency Number: (480) 784-0911

SCC Help Desk

Contact the SCC Help Desk at (480) 423-6274. Hours are Monday – Thursday 8 a.m. to 7:30 p.m. and Friday and Saturday from 8 a.m. to 4 p.m. Summer hours vary.

Technology Skills & Computer Equipment

For this course, you will need a working email address, a Canvas account, and access to the internet. Internet access can be from school, home, or work. Additionally, experience and comfort using the internet and word processing tools are beneficial for course success.

- SCC's Student Tech Center provides free computers and internet access to all registered students.
- Maricopa Community Colleges provides all students with an email address. It is now the official way to receive communication from the college and district. Look up your email account at the [Maricopa Student Email](#)
- You will be able to log into the [Canvas Learning Management System](#) using your MEID and associated password.

Course materials are best accessed through either Chrome or FireFox browsers. To download these browsers visit:

- [Chrome Website](#)
- [FireFox Website](#)

Learn Safe Guidelines

Student or Instructor Illness Considerations and Class Access

If your instructor is ill and cannot attend class, updates and announcements will be provided in Canvas, Maricopa email, or other class communication channel prior to class that day if possible.

Students who are not feeling well should not attend class. Notify your instructor prior to the start of class on a given day. Your instructor will connect with and provide information about how to stay current with assignments and lessons online.

FINAL THOUGHTS

Chemistry is an amazing subject. Like many good things, it will take some effort on your part to understand and appreciate it. I urge you to work on book problems and class exercises. Some of the material may be quite challenging to you, but don't give up! You have the ability to master chemistry, and from there you can do just about anything! I'll do everything I can to help to make the course interesting, enjoyable, and truly educational.

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.



Syllabus Agreement

CHM130AA: Fundamental Chemistry with Lab

Fall 2026 Sections 18429 (lecture) & 18430 (lab)

*Students are responsible for the information contained in this syllabus.

*The information in this syllabus is subject to change based on the discretion of the instructor.

*Please initial the following to signify your agreement:

_____ I have read the syllabus (in its entirety) and understand its policies and conditions for determining my grade and my expectations for this class.

_____ I understand that if this syllabus receipt is not on file with the instructor, I will be dropped as a "no show" from the class.

_____ I have reviewed and understand the Withdrawal Deadlines listed in the syllabus, and that if I must drop the course, it is my responsibility to initiate an official withdrawal by submitting a Withdrawal Form with required signatures to the Admissions & Records Office within the published deadlines. I understand that failure to file an official Withdrawal Form within published deadlines can result in a failing grade and may affect refund of course tuition and fees. I understand that withdrawal with a "Y" can affect my credit hours and academic standing.

Printed Name _____

Signature _____

Date: _____

(For your records)

Syllabus Agreement

CHM130AA: Fundamental Chemistry with Lab

Fall 2026 Sections 18429 (lecture) & 18430 (lab)

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Printed Name _____

Signature _____

Date: _____

(Submit this half)