



Course Information

- Semester and Year: Fall 2026
- Course Title: Fundamental Chemistry with Lab
- Course Prefix and Number: CHM130AA
- Section Number: 19027 with Lab Section 19028
- Credit Hours: 4
- Start Date: August 25, 2026
- End Date: December 18, 2026
- Room Number: NS 314
- Meeting Days: Tuesdays and Thursdays
- Meeting Times: 9:00AM–10:20AM & 10:30AM–11:45AM on both days
- Class Format: In-Person ([Review approved MCCCDC class formats](#))

**Note:* In the case of instructor illness or other extenuating factors and in-person courses cannot be held, the class may utilize a Live-Online format via WebEx at the same scheduled days and times as necessitated.

Instructor Information

- Instructor: Dr. Relindis Mawo
- Email: relindis.mawo@scottsdalecc.edu
- Phone: (480) 425-6705
- Office Location: Natural Sciences (NS) 124
- Office Hours: Monday 10:30AM–11:30AM
by appointment, in-person in NS 124 or virtual*.
Tuesday, Thursday 12:30PM–1:30PM, in-person, NS 124
Wednesday 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 program 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. RECOMMENDED COURSE TEXTBOOK: “*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](#)

Please see the “Our Course Textbook - Openstax Chemistry: Atoms First 2e” page in Canvas for more information on textbooks and to view or download our textbook.
2. TWO NOTEBOOKS: You will need two notebooks for this class.
 - a. One for notetaking during class or lab
 - b. A second for keeping a Reflection Journal outside of class.
*Access the following link for more information on [keeping a scientific lab notebook](#).
3. THREE RING BINDER: Class Activities and Lab Investigations will be provided for you. The binder will help you keep and organize these and other materials for the course. If you like to work electronically, I also suggest keeping files & folders in an organized Google Drive (using your school-provided MEID account with Google access included).
4. 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.
5. 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 [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 a Lockdown Browser. Lab reports, homework, journal reflections and some parts of exams will be submitted via file upload on Canvas.

Participation & Group Work Expectations

Participation is a requirement! 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, and present to the class. Students should not expect a lecture style of instruction from the instructor. 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 in lectures is a distraction and, in the lab, is a danger. I will ask you to leave the lab or lecture hall for the personal use of cell phones, both texting and talking.

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-ups on 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. 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 breakout sessions/group work: You will often work together in breakout session 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 **correspondence**. 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 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 Quiz	10%
Lecture Quizzes	10%
Reflection Journals	10%
Worksheets/Homework	15%
Lab Work, including Lab Reports & Lab Exams	15%
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 Quiz:

- *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 grade by 10% (for example, you would have passed with a 72%, but not passing reduces your 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.

Reflection Journal, 10% of Overall Grade:

One of the most effective ways to learn is to spend time reflecting on the subjects you have been studying. You will be writing a reflection (given specific guidance) on the topics we have been discussing each week that will go in your reflection journal, which is a separate notebook from your class notebook. You will submit the assignment by taking a picture of your reflection and submitting it in Canvas. You are allowed to use your reflection journal while you are taking each of the midterm exams.

Worksheets/Homework, 15% of Overall Grade:

Worksheets containing conceptual questions and practice problems are assigned to help you develop and use the major concepts & models we are developing. Worksheets 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, 15% of Overall Grade

One of the skills for success in this course (and life) is to reflect meaningfully on your learning. To help you develop this skill, you will keep a professional lab notebook that will be typically checked at the end of each lab period. More information is provided in the Lab Packet handout you will receive.

- a) Before arriving to conduct each lab, read the lab handout 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 lab notebook as you conduct the investigation. Your participation in the lab, your lab notebook, and/or asynchronous work after the lab meeting may be assessed each week.
- 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.

Lab report work is completed *individually* and must be submitted electronically in Canvas by the posted due date, regardless of absences. You will not receive credit for any part of the lab you did not take part in.

Lab Exams: Two Lab exams, Lab Midterm and Lab Final, will assess your knowledge and understanding of the lab investigations. The midterm will be a paper-pen exam, while the lab final will be a hands-on practical exam.

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.**

LECTURE AND LAB SCHEDULES

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

Week	Day/Date	Lecture/Lab Discussion Topic
Week1	Tue 8/25	- Course Introduction, Canvas & Syllabus, Personal Introductions, Culture Building Discussion, Tour of NS building - Lab 0, Safety in the Chemistry Lab and Lab Equipment - ABCC Pre-Test Ch1: Scientific Method
Week1	Thu 8/27	What Comes Next Pattern solving Activity - Ch2: Measurements and Significant Figures Lab 1: Significance of Measurements, Post-lab for Homework
Week2	Tue 9/1	- Significance of measurement Post-lab continued (if needed) Ch3: Matter - Mass & Change Activity (go through activity / not in workbook) - Unit 1 Worksheet 1: Mass and Change
Week2	Thu 9/3	- Mass & Volume Activity (Not in workbook) – data collection graphs *Laptops needed in lab room) - Discussion of graphs and meaning - Start Unit 1 Worksheet 2: Mass, Volume & Density
Week3	Tue 9/8	Lab 2: Density of a Gas - Discussion and Whiteboard work (Worksheet 2, WS2 – density concepts)
Week3	Thu 9/10	Ch4: Atoms and Elements - Unit 1 Activity: Thickness of a Thin Layer - Demos, discussion - Ch3: Energy - Intro Demos, Discussions and Storyboards for Motion of Particles (Energy & Temperature) - Scent of Particles - Food coloring - Heating Liquids (Thermal Expansion) - Homework - Unit 1 Worksheet 3 - Temperature and Heat/Energy
Week4	Tue 9/15	- Eureka video 21 on Heat and Temperature - Temperature vs Energy discussion – Unit 1 Worksheet 3 - question 4 - Episode 20, 21 (heat vs temp) Lab 3: Icy Hot - Post-lab Discussion, Eureka videos 16-18
Week4	Thu 9/17	- Ch3: Energy - Unit 1 Worksheet 4 Energy Diagrams - Homework - Unit 1 Worksheet 5 - Energy Diagrams Part 2
Week5	Tue 9/22	- Unit 1 Worksheet 6 - Quantitative Energy Problems - Metric Unit/Unit 1 – Worksheet 7 (start in class, finish for homework)
Week5	Thu 9/24	- Ch11: Gases Lab 4: Exploring the Properties of Gases - Start Gases Post Lab Discussion

Week	Day/Date	Lecture/Lab Discussion Topic
Week6	Tue 9/29	- Gases Post Lab and Proportional Reasoning Discussion - Whiteboards of graphs - Particle explanations of why P changes with changes in V, n, or T - Unit 1 Worksheet 8 - Gases & PVTn relationships - Story So Far Whiteboard & Review
Week6	Thu 10/1	Exam #1 (Unit 1) Ch4: Atoms and Elements Ch5: Molecules and Compounds - Element/Compound/Mixture demos & discussions (sand & salt demo, sugar in water vs in ethanol, iron & sulfur demo mix - then video the reaction) - Hoffman Apparatus - electrolysis demo & discussion (Video & discussion: Ring of truth) - Homework - Unit 2 Worksheet 1 Classifying Particles of Stuff
Week7	Tue 10/6	Ch9: Electronic Structure - Unit 2 Activity 1: Sticky Tape, Cathode Ray Tubes Demo - Tennis Ball Activity?
Week7	Thu 10/8	- Hoffman Apparatus? Lab 5: Conductivity, and post-lab discussion, CuCl₂ electrolysis demo
Week7	Fri 10/9	Last Day of Student Withdrawal Without Instructor Signature
Week8	Tue 10/13	Ch10: Chemical Bonding - Ions/molecules Recap; breakdown NaCl, CuCl₂, NH₄Cl - Unit 2 Worksheet 2: Representing Ions and Formula Units (finish for Homework) - Unit 2 Worksheet 3 - Ionic Compounds
Week8	Thu 10/15	- Unit 2 Worksheet 4 - Molecular Compounds, Homework - Unit 2 Worksheet 5 – Chemical Formulas Practice - Unit 2 Worksheet 6 - Electron Dot Diagrams
Week9	Tue 10/20	- Unit 2 Worksheet 7 – Shapes of Molecules Ch7: Chemical Reactions Lab 6: Chemical Reactions (1st 75 minutes of class)
Week9	Thu 10/22	- Unit 3 Activity 1: Relative Mass and Discussion - relative masses of atoms - Unit 3 Worksheet 1: Molar Mass - Unit 3 Worksheet 2, Homework pages 11-12
Week10	Tue 10/27	Lab 7: Empirical Formula, post-lab analysis and discussion - start / White Board Unit 3 Worksheet 2 – “How much Mass” Vs “How Many Moles” Problems in down time - Mass Vs Mole Problems/Discussion - Story so Far whiteboard & Review if time allows
Week10	Thu 10/29	Lab Midterm Exam (Labs 1-6) Departmental Nomenclature Quiz (+1%) - Unit 3 Activity 2 - Describing the Composition of Compounds (Empirical Formula, % by mass, Molecular Formula) -<i>No submission required</i> - Start Unit 3 Worksheet 3: Empirical Formulas & Percent Composition (finish for Homework)

Week	Day/Date	Lecture/Lab Discussion Topic
Week11	Tue 11/3	- Start Lab 8: Nail Lab, let Cu dry to Thursday - Unit 3 Activity 3 - Rearranging Atoms - Homework - Analysis Questions - Unit 3 Worksheet 4 - Reaction Equations
Week11	Thu 11/5	- Exam #2 (Through Unit 2 & Unit 3 Worksheet 2), 1st 75 minutes - Collect Cu and Fe mass, Post Lab analysis and Particle Diagrams
Week11	Fri 11/6	Deadline to earn +1% on Departmental Nomenclature Quiz
Week12	Tue 11/10	- White Board / discuss Questions from Unit 3 Worksheets 4 / Worksheet 5. - Unit 3 Worksheet 5 - Balancing Chemical Reactions - Homework - Unit 3 Worksheet 6 – More Practice with Chemical Equations
Week12	Thu 11/12	- White Board / discuss Questions from Unit 3 Worksheets 4-6? - Lab 9: Stoichiometry: Actual and Theoretical Yield - Post Lab / Intro to BCA – Unit 3 Worksheet 7 - Mole Ratios
Week13	Tue 11/17	- Unit 3 Worksheet 8 - Mole relationships & reaction predictions - Start Unit 3 Worksheet 9 - Reaction yields (finish for Homework)
Week13	Thu 11/19	1st 30 minutes of class -Unit 3 Activity 4 - Adjusting to Reality discussions (Why do reactions stop?) - Lab 10: Limiting Reactant - Unit 3 Worksheet 10 - Limiting Reactants (finish for Homework)
Week13	Fri 11/20	Deadline to pass the Nomenclature Quiz
Week14	Tue 11/24	- Unit 3 Worksheet 11 – Every Kind of Problem (finish for Homework) - Unit 4 Worksheet 1 - Molar Concentrations of Solutions
Week14	Thu 11/26	- Thanksgiving Day, No Class *Last day for Withdrawal (requires instructor signature)
Week15	Tue 12/1	- Lab 11: Solution Stoichiometry (Titration Lab), Post-lab discussion - Homework: - Unit 4 Reading Aqueous Solutions of Acids and Bases
Week15	Thu 12/3	- Exam #3 - Unit 4 Reading - Aqueous Solutions of Acids and Bases - Homework - Finish Lab 11 Report - Unit 4 - Worksheet 2
Week16	Tue 12/8	- Unit 4 - Worksheet 3 - Unit 4 - Worksheet 4, Enthalpy calculations
Week16	Thu 12/10	- End of semester assessments, Lab Practical (~30 min), ABCC Post-Test (~30 min) - Whiteboard Unit 4 Worksheets 3, 4?; Final Exam info and review
Week17	Tue 12/15	Final Exam - Cumulative Final Exam (Weeks 1-16)
Week17	Thu 12/17	Move final exam here if needed

Table 3: CHM130AA Fall 2026 Course Schedule

*Daily handouts and additional resources are located on Canvas. Log in @ [MCCCD Canvas login link](#)

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.

- a. **First offense:** a zero for the assignment that contains the plagiarized answer.
- b. **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. This video will help you set your Canvas [notification preferences](#).

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 you if there is an option to attend class remotely or will 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 19027 (lecture) & 19028 (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 19027 (lecture) & 19028 (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: _____

(Submit this half)