



## Course Syllabus

### **CHEM 1405: Introduction to Chemistry I**

**Catalog Description:** Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors.

**Prerequisites:** none

**Semester Credit Hours:** 4

**Lecture Hours per Week:** 3

**Lab Hours per Week:** 3

**Extended hours:** 2--Additional study is required outside posted class times.

**Contact Hours per Semester:** 96

**State Approval Code:** 40.0501.51 03

**Class section meeting time:** 1405.101 MW 10:10 – 11:05am/online; 1405.401 –online; 1405L.001 M: 1:40pm – 4:10pm; 1405L.002 W 1:40pm – 4:10pm **Hybrid** – Students are expected to spend at least 2 hours per week reading, reviewing, and participating in assigned activities outside of class time for successful completion of this course. **Online** – Students are expected to spend at least 3 – 4 hours per week reading, reviewing, and participating in assigned activities outside of class time for successful completion of this course.

#### **Core Components and Related College Student Learning Outcomes**

This course counts as part of the academic requirements of the Panola College Core Curriculum and an Associate of Arts or Associate of Science degree.  Yes  No: If no, skip to Instructional Goals.

The items below marked with an X reflect the state-mandated outcomes for this course **IF this is a CORE course:**

- Critical Thinking Skills – to include creative thinking, innovation, inquiry and analysis, evaluation and syntheses of information
  - CT1: Generate and communicate ideas by combining, changing, or reapplying existing information
  - CT2: Gather and assess information relevant to a question
  - CT3: Analyze, evaluate, and synthesize information
- Communication Skills – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
  - CS1: Develop, interpret, and express ideas through written communication
  - CS2: Develop, interpret, and express ideas through oral communication
  - CS3: Develop, interpret, and express ideas through visual communication
- Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or

- observable facts resulting in informed conclusions
- EQS1: Manipulate and analyze numerical data and arrive at an informed conclusion
  - EQS2: Manipulate and analyze observable facts and arrive at an informed conclusion
  - Teamwork – to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
    - TW1: Integrate different viewpoints as a member of a team
    - TW2: Work with others to support and accomplish a shared goal
  - Personal Responsibility – to include the ability to connect choices, actions, and consequences to ethical decision-making
    - PR1: Evaluate choices and actions and relate consequences to decision-making
  - Social Responsibility – to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
    - SR1: Demonstrate intercultural competence
    - SR2: Identify civic responsibility
    - SR3: Engage in regional, national, and global communities

### **Instructional Goals and Purposes:**

The purpose of this course is to provide the first semester of a two semester introductory course in chemistry for non-science majors. The first part of the course includes mastery of topics in measurement, dimensional analysis, classification of matter, chemical structure, chemical formula and equation writing, and stoichiometry. The remainder of the semester is spent in a survey of physical applications to chemical systems including gas laws, kinetic theory, solutions, equilibrium, acids and bases, and nuclear chemistry with emphasis world applications. Chemistry 1405 has a required laboratory component that forms an important portion of this study. Most of the experiments for the lab will be selected from the manual available on Canvas. Experiment results will be reported via documents found in the lab manual. The goal is for the following general objectives to be achieved:

1. Understand and be able to explain the general principles, laws, and theories of chemistry that are discussed and presented throughout the semester
2. Use critical thinking and logic in the solution of problems
3. Apply learned chemistry skills to new situations
4. Demonstrate an understanding of chemistry through technological advancement
5. Apply chemical principles in the laboratory setting
6. Develop independent and cooperative learning skills
7. Recognize and acquire attitudes that are characteristic of the successful worker regardless of the major field of study
8. Develop an awareness of the value of chemistry in our daily living

### **Learning Outcomes: [from the ACGM catalog]**

After studying all materials and resources presented in the course, the student will be able to:

1. Define the fundamental properties of matter.
2. Classify matter, compounds, and chemical reactions.
3. Determine the basic nuclear and electronic structure of atoms.
4. Identify trends in chemical and physical properties of the elements using the Periodic Table.
5. Describe the bonding in and the shape of simple molecules and ions.

- Solve stoichiometric problems.
- Write chemical formulas.
- Write and balance equations.
- Use the rules of nomenclature to name chemical compounds.
- Define the types and characteristics of chemical reactions.
- Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems.
- Determine the role of energy in physical changes chemical reactions.
- Convert units of measure and demonstrate dimensional analysis skills.
- State the characteristics of liquids and solids.
- Articulate the importance of intermolecular interactions and predict trends in physical properties.
- Identify the characteristics of acids, bases, and salts, and solve problems based on their quantitative relationships.
- Identify oxidation-reduction equations.
- Discuss rates of chemical reactions and the dependence on concentration, time, and temperature.
- Apply the principles of equilibrium to aqueous systems using LeChatelier's Principle to predict the effects of concentration, pressure, and temperature changes on equilibrium mixtures.
- Define nuclear decay processes.

**Course Content:**

A general description of lecture/discussion topics included in this course are listed in the Learning Outcomes section of this syllabus.

Students in all sections of this course will learn the following content:

- Describe the scientific method.
- Describe good laboratory behavior.
- Describe the safety criteria and safety features of your lab.
- Identify from the lab drawer any specific item of glassware and its proper use and function.
- Describe the proper use of an analytical balance.
- Define and distinguish between the terms precision, uncertainty, and accuracy.
- Make and record measurements to the proper instrument precision.
- Conduct laboratory experiments safely and accurately.
- Report on laboratory findings using proper methods.
- Give the metric units for mass, length, and volume.
- Perform english to metric conversion equivalents (and vice versa) for mass, length, and volume.
- Give the exponential numerical equivalents for the metric prefixes:
  - nano, micro, milli, centi, deci, deca, hecta, kilo, and mega
- Distinguish between mass and weight.
- Distinguish between heat and temperature.
- Use the unit analysis (factor-label) method in good written form to perform conversion calculations.
- Define, distinguish, and correctly classify examples of:
  - Physical and chemical properties of matter
  - elements, compounds, and mixtures
  - metals, nonmetals, and metalloids
  - solid, liquid, and gaseous phases of matter

- e. atoms, ions, and molecules
  - f. homogeneous and heterogeneous materials
17. Write the names, symbols and charges for common chemical elements and polyatomic compounds. (See list provided by instructor)
  18. Give the correct symbols for the seven common elements that exist as diatomic molecules.
  19. Identify the purpose and broad organization of the chemical periodic table.
  20. Write the symbols for the common monoatomic ions, recognizing the ion charge from the periodic chart.
  21. Explain the use of the formula  $E = m \times \text{sp.ht.} \times \text{Dt.}$  Clearly define the quantity represented by each symbol and the proper units of measurement for the quantity. Use the formula to compute information from a calorimetry experiment.
  22. Write a thorough description of the development of thought shaping early theory of atomic structure.
  23. Describe the present day simple electron-proton-neutron model for a many electron atom.
  24. Explain how an atom acquires a net charge to become an ion.
  25. Define: isotope, atomic number, atomic mass (weight), and atomic mass unit.
  26. Give the name, symbol, and charge for some common polyatomic ions. See list.
  27. Write the correct formulas for compounds, given the names; write the correct names for compounds, given the formulas.
  28. Define and distinguish between:
    - a. Binary and ternary compounds
    - b. common and systematic chemical names
  29. Describe the energy level nature for the electrons in many-electron atoms.
  30. Describe the historical discovery of electron energy levels and give an overview of the theoretical development, Define atomic orbital.
  31. Write electron configurations (spdf) for the first twenty elements of the periodic chart.
  32. Relate the electron configurations of elements to their position in the periodic chart (row and column).
  33. Draw Lewis dot diagrams for representative elements.
  34. Define electronegativity.
  35. Describe the periodic trends in the properties of elements in the periodic chart.
  36. Define and give examples of ionic and covalent bonds. Identify compounds as ionic or covalent.
  37. Draw Lewis structures for simple molecules.
  38. Define: atomic mass, formula mass, molar mass, empirical formula molecular formula, Avogadro's number.
  39. Use the unit analysis method to convert between grams, molecules, atoms, and moles of a substance.
  40. Describe what a "chemical equation" is and explain why it is an important tool in the study of chemistry.
  41. Explain what we mean by each of the following: reactants, products, coefficients, balanced equation, word equation, skeleton equation.
  42. Name and describe four types of chemical reactions.
  43. Explain what is meant by a "combustion reaction". Explain why we say that hydrogen is combustible but will not support combustion. Cite experimental evidence.
  44. Calculate related amounts in chemical reactions from balanced chemical equations
    - a. Given reactant moles, find product mass or moles.
    - b. Given reactant mass, find product mass or moles.
    - c. Given one reactant or product amount, find related reactant or product amount.
    - d. Given two or more reactant amounts, determine and correctly use limiting reactant information.
    - e. Given percent yield, determine related reactant or product amount.
  45. State and solve problems using Boyle's Law, Charles Law, Guy-Lussac's Law, Avogadro's Law and the Combined Gas Law. .
  46. State and apply Dalton's Law of Partial Pressures.
  47. State and solve problems using the Ideal Gas Law
  48. Recognize the values for STP and molar volume at STP.
  49. Compare ideal gases and real gases.

50. Using the Kinetic Molecular Theory distinguish among gases, liquids, and solids.
51. Define: evaporation, vapor pressure, surface tension, boiling point, freezing point, and melting point.
52. Describe the importance of hydrogen bonding.
53. List important sources of air and water pollution.
54. Define solubility and describe the solvation process; define saturated and unsaturated.
55. Define molarity; solve problems computing moles, mass, and concentrations of solutions.
56. Define acids and bases. Give typical reactions, especially neutralization reactions.
57. Describe the titration process.
58. Given concentration of acids or bases, calculate the pH and the pOH..
59. Use the collision theory to explain how the rate of a chemical reaction is influenced by temperature, catalyst, concentration, and particle size of reactants.
60. Define chemical equilibrium in terms of a reversible reaction and predict the equilibrium position of a reaction from a given K value.
61. State LeChatelier's principle and use it to predict changes in the equilibrium position due to changes in concentration and temperature.
62. Describe how buffer solutions control pH in biological systems.
63. Define oxidation and reduction reactions; describe an oxidizing agent and a reducing agent.
64. Describe alpha, beta, and gamma rays.
65. Differentiate between fission and fusion.
66. Describe the biological effects of radioactive substances.

### Methods of Instruction/Course Format/Delivery:

This course is offered in the following formats:

- Face to face lecture, video/screencast lecture, class discussion, lecture activities, reading assignments, homework, quizzes, research, presentation, pre-laboratory activities, laboratory experimentation, laboratory reports

### Major Assignments / Assessments:

The following items will be assigned and assessed during the semester and used to calculate the student's final grade.

The following components will include, but is not limited to the following items.

1. **Homework, Quizzes, Participation, Lecture Activities, Library Literacy course:** These assignments will vary in points and average together to encompass 20% of the final grade.
  - **Homework** - completed and turned in using the online system called Mastering Chemistry, which is designed to accompany the textbook. This code may be purchased as a bundle with the book in the Panola College Bookstore. It may also be purchased separately in the bookstore or online. **This system will be embedded in Canvas.**
    - For homework to be most useful in preparing for in class work and exams, it must be submitted by the date due. Late work is not accepted as there is ample time allowed for completion and can be worked on 24/7.
    - **Mastering Chemistry** - Registration instructions are located in Canvas
      - Make sure you have the latest free download of adobe flash player and any other required free software
  - **Application assignments** – There will be mandatory assignments periodically that

you will complete and turn in that are separate from mastering chemistry. These assignments are designed to help you see the real world applications of chemistry and understand how to research/present scientific information from an article. No late or makeup work will be accepted for any reason other than Panola College approved activities.

- **Lecture Activities** – exercises/activities performed in class or online as a participation in the lesson, quizzes in class or online. These activities are given as needed and possibly without prior notice. . No late or makeup work will be accepted for any reason other than Panola College approved activities.
  - **Study Groups (extra credit)** - are recommended to encourage peer tutoring and cooperative learning. Groups will form by student choice and meet at times chosen by the group. Reports of study group activity will be turned in to me once a month for extra credit in the homework/lecture activities grade portion. Report forms may be downloaded from Canvas. Turn in the study group report form to my office during the first week of each month to reflect the previous month's activity. Please combine August and January with the following month.
  - **Library Literacy Information course** – All chemistry students need to know how to use the library resources for research, tutoring etc. Therefore, all students must enroll and complete the library information literacy course. It will take a total of about 3 hours to complete. Students will have a couple of weeks to complete it. It is provided by the library. If this is required for more than one class, the student only has to do it once and will be allowed to submit the certificate.
2. **Laboratory Experiments** – Laboratory experiments will be performed in order to apply the general principles, laws and theories of chemistry learned during lecture. Experimental results will be recorded and submitted on the forms found in the lab manual. The laboratory course information and specific procedures will be provided and discussed in the mandatory laboratory orientation by your lab instructor. **No student will be allowed to begin any experiments in the lab without going through lab orientation.** The lab instructor has the authority to remove 10 points from your laboratory report for each expectation in the laboratory guidelines that is not followed by the student. Removal of points or the student is by instructor discretion based on previous warning or the gravity of the infraction. **NO ONE WILL BE ALLOWED TO PUT YOU OR OTHERS AT RISK IN THE LAB.** Students must follow all expectations as described in the course information document in order to remain in lab class. Safety is most important.
- The grade of 150 possible points for each laboratory experiment is broken down as follows:
    - i. 50 points for showing up on time with the pre-lab assignment complete( in the lab manual), the canvas pre-lab quiz complete (if applicable) and an up to date MSDS notebook containing all required safety information. This is your ticket in the door and you will not begin an experiment without having met all of the requirements. This also includes conducting the experiment, adhering to all safety and equipment use rules, completing the experiment, cleaning up your lab station, and disposing of all waste/trash according to instructions given. All of these items must be complete before leaving lab. If any of this is incomplete, 30 points will be removed.
    - ii. In order to receive the above 50 points in the grade book, a lab paper must be turned in with lab instructor initials.
    - iii. 100 points for the report sheet you turn in. It must be complete, legible, and information must be properly presented and clearly explained when necessary. All work must be shown when necessary to receive full credit.

- Missing a lab-
    - i. **No more than 2 missed labs may be made up. No exceptions, reason doesn't matter.**
    - ii. A make-up lab schedule will be posted. All make up lab times will occur toward the end of the semester regardless of the lab you missed. It is the student's responsibility to make arrangements to attend make up labs according to the schedule. No additional make up lab times will be available.
  - Cell phones in lab- **NO CELL PHONES IN LAB!!!!** If you have a situation where you may need to take a call, then you will leave the phone at the instructor table to be answered by you when/if it rings. If you have your phone out or are using your phone without permission for any reason, you will lose all 30 points of your participation grade but are required to complete the experiment. This is a violation of safety rules and putting others or yourself at risk will not be tolerated.
3. **Unit Exams** – Five unit exams will be given throughout the semester worth 100 points each. These exams will average together to make up 40% of the final grade.

**Online Students:** Each exam will be given at a Panola College testing center on the dates set by the instructor. You need a pencil/pen and your calculator for each exam. All other materials will be provided.

**Face to Face Students:** Each exam will be given at a Panola College testing center on the dates set by the instructor. You need a pencil/pen and your calculator for each exam. All other materials will be provided.

Absences on exam days are not excused for ANY reason other than approved Panola College activities. Students with excused absences may take a make-up exam similar to the one given at a time convenient to the instructor. For unexcused absences, one unit exam may be made up at the end of the semester at a time designated by the instructor. The make-up exam is comprehensive and all essay/problems. I do not drop/replace any exam grades in this course.

- The unit break down for exams is as follows (see the lecture schedule for tentative dates):
    - Unit I Chapters 1, 2, 3, 4
    - Unit II Chapters 5, 6, 7
    - Unit III Chapters 8, 9, 10
    - Unit IV Chapters 17, 11, 12
    - Unit V Chapters 13, 14, 15
4. **Service Learning Mandatory Project:**  
 Each student will complete the following project during the regular semester. It is due the last week of class before final exam week. **There is a module in canvas with the specific instructions and due date.** This project is part of the Laboratory average and is worth 300 points.

Participate in a service learning project by volunteering in an area that relates to chemistry. (Everything relates to chemistry.) You are responsible for finding the place of service, but assistance will be provided about ideas of what you can do. You will also be in contact with the organization for additional information if available. Please note the following requirements: All volunteer work must be approved by me in advance. There will be a submission of your plan in canvas later in the semester.

You will serve in whatever capacity they need you.  
You will write a reflection page about the experience that will be turned in to me.  
All volunteer work and reflections must be completed by the due date. Late work is not accepted.

5. **Final Exam** – is also comprehensive, all multiple choice, and will be administered according to the posted final exam schedule (not available at this time). Additional information will be in the final exam module on Canvas, which posts toward the end of the semester. This exam is worth 15% of the final grade.

## **Classroom Policies**

**Attendance** – is expected at all labs. Attendance in lecture and lab is required for course completion. Class attendance is monitored and recorded. However, this level of instruction includes expected personal responsibility that will not always be addressed. YOU are responsible for missed information. Attendance WILL affect your grade because you probably missed something you needed to learn how to do. For Panola College approved and excused absences, it is your responsibility to contact me about what you missed. Please see syllabus and make up work policies before you ask. See the handbook for rules concerning allowed absences.

**NO CELL PHONES**- Cell phones are not allowed to be used as calculators in class or lab.

**Withdrawal Policy:** A student may need to withdraw from the course before the semester's end. It is the student's responsibility to complete and submit the appropriate forms (as provided by the student success office) on or before the withdrawal date. The withdrawal date is posted on the college academic calendar. A student who ceases to attend class without formal withdrawal will receive a grade of "F" for the course. The instructor reserves the right to withdraw a student from the course in accordance with college policy. Students should consider that they may only drop 6 total courses during their college tenure.

**Incomplete Grade:** An Incomplete grade is a temporary grade given to a student who is unable to complete the course as the result of an authorized absence (i.e. serious illness or emergency). Incomplete grades will only be approved by the instructor for students who have maintained good standing in the course. All incompletes must be further approved by the Vice President of Instruction. Students should note that an incomplete grade ("I") has the effect of an "F" on their GPA. The "I" will be removed once the student completes the course. Students have a maximum of six weeks to complete the course from the semester's end or they will receive a grade of "F" for the course.

**Classroom Etiquette:** Students should arrive on time and remain in class until the full class period has expired. Appropriate dress attire should be worn (i.e. no pajamas or overly revealing attire), headwear should be removed, and students should be respectful (in language and behavior) toward one another and the instructor. **Students are highly encouraged to engage the class by participating in class discussions and asking appropriate questions. The standards of student conduct must be maintained with the instructor outside of class and in all electronic communication with the instructor or other students.**

Cell phones, computers, and all other electronic devices must be silenced before the beginning of class unless indicated by the instructor. Students shall be allowed to record lectures but their recording device must be placed at the front of the class on or near the instructor. Recording a lecture does not excuse a student from attending class.

At all times students are expected to uphold the standards of student conduct as defined in the Student Handbook. A failure to comply with these conditions will result in removal from the classroom and an absent mark on the attendance record.



**Internet Etiquette:** All online users should take great care in their internet behavior. Students are expected to remain respectful in all electronic communication as any publicly or privately shared media will be viewed by others. This communication includes all written material, submitted assignments, pictures, audio recordings, and video recordings. The instructor reserves the right to remove online submissions that contain inappropriate or obscene material. Students who violate proper internet etiquette in an assignment shall fail the assignment on the first offense and shall fail the class upon the second offense.

No user shall post personal or confidential information concerning another party without their express permission. No student shall copy, alter or share files of course material submitted by another student. All of the standards of the academic honesty policy shall apply to all online course material. Students shall be held accountable for posting libelous or obscene material on any electronic forum hosted or expressly regulated by the college under user agreement. The instructor and the college reserve the right to remove said material and hold disciplinary actions in accord with college policy. At all times students are expected to uphold the standards of student conduct as defined in the Student Handbook. The instructor and the college shall have the right to remove a student from the course (resulting in a failing grade) and take appropriate disciplinary actions (as defined by the student handbook) for violating any of the aforementioned policies.

**Cheating:** "Cheating" is defined as unauthorized help on an examination or assigned course material.

A student must not receive from any other student or give to any other student any information, answers, or help during an exam. A student must not "steal" the answers from an unsuspecting student during an exam.

A student must not use any sources for answers during an exam (including, but not limited to: notes, books, or electronic devices) without prior authorization from the professor.

A student must not obtain exam questions illegally, tamper with the exam questions, nor change the results of an exam after it has been graded.

All cheating infractions will result in a grade of "0" for the assignment. A student will fail the class upon their second cheating offense. This policy shall be adhered to unless mitigating circumstances should prove a lesser penalty should apply.

Students shall have the right to contest a cheating claim. The appeals process is specifically defined in the student handbook.

**Plagiarism:** "Plagiarism" is defined as the taking of a person's ideas, words, or information and claiming those properties as one's own. The use of all ideas, words, or information from any source must be properly referenced and due credit must be given to it's author.

All class assignments must be submitted through Canvas. Canvas will run the submitted assignments through [turnitin.com](https://turnitin.com). Any assignment which scores higher than 40% on copied material will automatically receive a grade of "0". Properly quoting and citing borrowed information is NOT plagiarism. However, since the integrity of the assignment is based upon the originality of the student's work, no student may turn in a paper which exceeds a 30% score in properly quoted and cited material.

The instructor reserves the right to employ other means outside of [turnitin.com](https://turnitin.com) to check the "originality" of a student's work. Students shall have the right to contest a plagiarism or cheating claim. The appeals process is specifically defined in the student handbook.

All plagiarizing infractions will result in a grade of "0" for the assignment. A student will fail the class upon their second plagiarizing offense. This policy shall be adhered to unless mitigating circumstances should prove a lesser penalty should apply.

**Privacy Policy:** The instructor will uphold the privacy of a student's grades, disability, and all other personal information in accord with school policy, state and federal law.

A student perpetually maintains the right to review their course grades. A student's right to review their grades shall not be interpreted as the right for the release of an instructor's grading keys.

The instructor and the college do not assume responsibility for the disbursement of any grade information a student freely gives of himself in private correspondence or in a public forum. The instructor reserves the right to remove grade information which a student freely reveals of him or herself in an online public forum hosted or regulated by the college to preserve the integrity of the course.

The instructor reserves the right to pursue disciplinary and legal action against any student who illicitly obtains and reveals private instructional information, including, but not limited to answer keys or class grades.

**Disability Policy:** Students with a learning disability must verify their disability with the Career/Technical Advisor in the Student Success Office. The student is responsible for presenting proper verification to the instructor at the beginning of the course. Upon verification, the instructor shall make the appropriate accommodations for the student. The instructor shall not implement special accommodations for students whose disability has not been verified by the college. The instructor is not responsible for a student's poor class performance before verification is presented.

Students with a condition that may require emergency assistance (i.e. seizures, pacemaker malfunctions, hyperventilation, etc) should meet with the instructor in private to discuss emergency procedures.

A disability does not exempt a student from proper classroom etiquette or the student code of conduct. This class will fully comply with the college handbook, state, and federal laws.

### **My Philosophy:**

I believe chemistry is a core discipline essential to a college education regardless of major or career choice. Recognizing a broad range of interests, preparations, and future needs among chemistry students, this course is designed to allow each student to individually select topics for various assignments in order to further develop possible career choices. Every attempt on my part is made to ensure your area of interest is discussed. Please let me know if there is a topic that particularly interests you.

Organization is a key to success in this course. I highly recommend a notebook or a three ring binder to keep up with all assignments, quizzes, homework and exams. For example, if there is a problem with the homework system and you can show me your work, I am able to give you credit.

I really want you to be successful in this course. Please do not hesitate to come by my office for help. If the office hours conflict with your schedule, every effort will be made to arrange an alternative time. I cannot fix what I am not aware of so communication is a must. Please know that email is the best way to get a quicker response since I don't access my office phone from home.

Changes to this syllabus, how class is conducted, and how grades are calculated may occur by the instructor if deemed best by the instructor for student learning and success.

### **Canvas:**

This course is available on Canvas and will contain all information necessary for the course. Canvas is also the method in which you will contact me, make any necessary appointments, receive announcements, take quizzes, do your homework, and watch screen casts. Please make sure you know how to use it. **Make sure you have the latest free download of adobe flash player.** There are canvas orientations through the distance learning office you may attend for assistance.

### **Course Grade:**

The grade for this course will be based on...

1. Homework and lecture activities 20%
2. Labs 25%
3. Unit Exams 40%
4. Final Exam 15%

Letter grades are as follows:

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	Below 60

**Texts, Materials, and Supplies:**

- **Introductory Chemistry Essentials 6<sup>th</sup> ed. by Nivaldo J. Tro**
- **Modified Mastering Chemistry access code (homework registration necessary for online homework)**
- *Available on Canvas: Introduction to Chemistry in the Laboratory. Amy Calhoun*
- SCIENTIFIC CALCULATOR (no cell phones) (it does NOT need to be graphing)
- Composition notebook (or other bound notebook)
- Safety glasses

**Required Readings:**

may include, but not limited to:

- Textbook, journal articles, and other relevant scientific material

**Recommended Readings:**

may include, but not limited to:

- Textbook, journal articles, and other relevant scientific material

**Other:**

- For current texts and materials, use the following link to access bookstore listings: <http://www.panolacollegestore.com>
- For testing services, use the following link: <http://www.panola.edu/elearning/testing.html>
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Charles C. Matthews Student Center or go to <http://www.panola.edu/student-success/disability-support-services/> for more information.
- Withdrawing from a course is the student's responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.
- Student Handbook, *The Pathfinder*: <http://www.panola.edu/student-success/documents/pathfinder.pdf>