Chemistry 1411.221HY
General Chemistry 1
Summer 1 2021 – 5W
Mondays from 5:30-10:10 pm in STEM Bldg. 346
Online through Blackboard and Sapling

Instructor Information:
Name: Professor Nawal Sharma, *Ph.D.*
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Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

The best way to reach me is by email. Please use nsharma@com.edu email address. Emails from other sources may be delayed or filtered from my inbox. This may delay or prevent my reply to your email. Reply to emails from external email addresses will be through nsharma@com.edu email address. If you prefer to meet with me virtually, please make an appointment. I will strive to reply to emails nsharma@com.edu addresses and questions from forum posts, which are made on weekdays, within twenty-four hours. Expect that I will be unavailable on weekends. Replies to voice messages left on my office telephone will take longer for me to reply than an email. Also, I will most likely reply to a voice message by email. So, if you don't mind waiting an extended time for my reply, leaving a voice message is another option.

Student (Office) hours and location:
Location: Virtual Office through Microsoft Teams/COM email/Telephone
Times: Mondays and Wednesdays from 4:30 to 5:30 PM

Required Textbook: Chemistry Atoms First, 2nd ed. from OpenStax, 2019. Openstax.Org. Print Book ISBN-13 978-1-947172-64-7, PDF Version ISBN 978-1-947172-63-0, https://openstax.org/details/books/chemistry-atoms-first-2e

Good news, your textbook for this class is immediately available for free online! If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com.

You can use whichever formats you want. Web view is recommended since the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)

Textbooks and/or courseware is available through VitalSource digitally. Cost of the course materials for this section is $43.40. The course materials are available on the first day of class and you will be given the opportunity to opt-out of the e-book prior to the census day of the class. If you choose not to use the course materials, you will be reimbursed after census day of the class. The materials are not refundable after the census day.

Sapling Learning is an Internet based homework, testing, and content management system. Instructions for creating a Sapling Learning account and registering for the course are provided in the Read Me First page located in Blackboard.

Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up or throughout the term, if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling Learning support team is almost always faster and better able to resolve issues than your instructor.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Additional Materials: An inexpensive scientific calculator (e.g., TI-30). You most likely have one on your cellphone.

Computer Requirements: You will need to have access to a computer with the following resources.

- Internet access through a wired Ethernet connection
- A contemporary web browser capable of viewing flash video
- Java installed and updated
- An e-mail account (COM provides free email for students)
- Microsoft Office, Microsoft OneNote, and Microsoft Teams (COM offers free Office 365 access for students)
- Respondus LockDown Browser (COM provides this browser through a link on the Blackboard login page)
- Vernier Graphical Analysis (Vernier offers free software for students)
- File conversion software for converting image files to PDF files (Microsoft Office Lens, Adobe Scan, and Genius Scan are free for both Android and iOS)
- A PDF reader

You are responsible for maintaining your own hardware and software. If you are incapable of maintaining your own system, please consider taking this class when use of campus computers has been restored.

Course Description: Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.

Course requirements:

Students are expected to meet the following course requirements.

- Stay Current: You will use the Course Outline, the online calendar, the discussion forums, communication with your instructor, and communication with your classmates to stay abreast of course scheduling.
- Meet Learning Objectives**:** You will cover the course material listed in the Student Learning Objectives by accessing information from the textbook, from Sapling Learning, from the Internet, from the Library, and from other resources, as needed.
- Stay in Communication: You will maintain communication with your classmates and instructor, as needed. Typical methods for communicating include interpersonal communication, email, text messaging, instant messaging, and discussion forum postings.
- Complete Assessments**:** Your knowledge of the material covered in the Student Learner Outcomes is assessed using online discussions, online homework, a presentation, exams, and laboratory experiments.

    - **Discussion Forums**

      There will be four graded discussion topics posted during the semester. Each topic will be available for a limited time during the semester. The first and fourth Discussion Forums are meant to be an open discussion based on the intersection between chemistry and your interests and opinions. The second and third Discussion Forums are meant to be an academic discourse focusing on the topic and using research and references to support your position.

      For both type of posts, your response to the topic should address the topic and not contain gratuitous, tangential, or spurious comments. Replies in response to posts by other students should address the content and position of that post. Responses containing gratuitous, tangential, or spurious comments are unwelcome. Postings that are composed of complete sentences, that clearly address the topic, and that contain proper citation(s) are graded more favorably than jotted noted, incomplete thoughts, and undocumented claims.

        - The first discussion topic is designed to introduce you to the Discussion Forums and to determine your motivation for taking the course.
        - The second topic is a discussion of the metric system and the attempts by the United States to convert to the metric system.
        - The third discussion topic will focus on the ways chemistry impacts your life.
        - The fourth discussion topic attempts to determine what parts of the course that you found most valuable.

Students are encouraged to make multiple posts to a topic as they learn more about the topic or to respond to posts by other students. You can accumulate points, up to the maximum points per discussion topic, by making multiple unique posts to a topic or in response to the post from another student. The directions for each forum describe how points are earned for that forum. The first forum is worth a maximum of 10 points. The second and third forums are worth a maximum of 35 points each. The fourth forum is worth a maximum of 20 points. Your Discussion Postings Grade is the sum of the three Discussion Forum grades; it is worth a maximum of 100 points.

- **Presentation**

  There is one Online Presentation for this semester. It consists of three parts.

  - Selection and assignment of your presentation topic.
  - Researching your presentation topic
  - Creating and submitting your presentation.

  Each student will select three elements, excluding carbon, from a The Periodic Table of Elements and post a numbered list to the Presentation Selection Discussion Forum. By posting to the forum, you will time stamp the selection of your topic. Only one student per topic is permitted. After the deadline for the topic selection has past, your Instructor will confirm your assigned element by posting a list of topic assignment on the course web site. Topics are assigned based on the chronology of the posts. Of all three choice have previously been assigned, an element will be chosen by your Instructor. Any student that fails to submit a selection post to the forum by the deadline will be assigned an element by your Instructor. Selecting a topic, selecting two alternate topics, and making a post of your selection with those two alternates by the deadline for submission is worth a maximum of 5 points.

  Once you have verified your assigned topic, you should review the grading rubric that will be used to provide direction in researching and creating your presentation and to determine the scoring for the components of your presentation. Then, for the second step, each student will research their topic and develop an outline using Microsoft Word. The contents are described in the rubric for the outline. Since General Chemistry has an emphasis for science majors and pre-professional student, ACS (American Chemical Society) style is used to cite references. The completed outline should be submitted as an attachment to the assignment before the deadline. The outline is worth a maximum of 35 points.

  Next, the presentation is developed by creating a presentation using Microsoft PowerPoint. The completed presentation should adhere to the directions and rubric. Finally, the completed presentation will be uploaded as an attachment to the assignment before the deadline. Be certain to verify your attachment before submitting your assignment. The presentation is worth a maximum of 60 points.

  Students that submit their outline or presentation as an attachment to an email will incur a 10% penalty (a deduction of 3.5 points and 6.0 points, respectively). Students that submit their outline or presentation in printed form will incur a 30% penalty (a deduction of 10.5 points and 18 points, respectively).

The Presentation Grade, the sum of the Presentation Selection Discussion Forum, the Presentation Topic Outline, and the Presentation, is worth a maximum of 100 points.

- **Learning Curve Self-assessments**

  There will be one or more Learning Curve Self-assessments, one or more for each chapter, available during the semester. The Learning Curve Self-assessment are provided online through the Sapling Learning system. These self-assessments are designed and administered to promote mastery of course objectives addressed in each chapter from your textbook. Once started, you will have until the deadline to complete and submit your attempt. The system is an adaptive learning module that allows for multiple attempts and is designed to help you master the concepts and calculations of the material. The purpose of allowing the additional attempts while answering the questions is to promote mastery of the material. By learning from mistakes made during the initial attempt you will have an opportunity to correct misconceptions and demonstrate mastery of the material. This will also help prepare you for the exams.

  These are self-assessment that are not directly factored into your grade calculation.

- **Chapter Tests**

  There will be nine Chapter Tests given during the semester. The Chapter Tests are given online through Sapling Learning. These tests are designed and administered to promote mastery of the selected Student Learner Outcomes. These open book tests allow you to reference your course materials and Internet resources during the assessment. The tests are composed of calculation, matching, multiple choice, and true/false questions. The topics for the Chapter Tests correspond to the chapter topics from the textbook:

  Chapter 1 Essential Ideas
  Chapter 2 Atoms, Molecules, and Ions
  Chapter 3 Electronic Structure and Periodic Properties of Elements
  Chapter 4 Chemical Bonding and Molecular Geometry
  Chapter 5 Advanced Theories in Bonding
  Chapter 6 Composition of Substances and Solutions
  Chapter 7 Stoichiometry of Chemical Reactions
  Chapter 8 Gases
  Chapter 9 Thermochemistry

  Each Chapter Test is worth a maximum of 100 points. The Chapter Test Average is calculated as the simple average for the Chapter Test scores after dropping the lowest score. The maximum value for the Chapter Tests Average is 100 points.

- **Semester Exams (Midterm Exams)**

  There will be three Semester Exams given during the semester. The questions on these exams may be composed of calculation, matching, multiple choice, multiple answer, short answer, and true/false formats.

The first Semester Exam is designed and administered to evaluate retention of course content for the material covered in Chapters 1 through 3.

Chapter 1 Essential Ideas
Chapter 2 Atoms, Molecules, and Ions
Chapter 3 Electronic Structure and Periodic Properties of Elements

The second Semester Exam is designed and administered to evaluate retention of course content for the material covered in Chapters 4 through 6.

Chapter 4 Chemical Bonding and Molecular Geometry
Chapter 5 Advanced Theories in Bonding
Chapter 6 Composition of Substances and Solutions

The third Semester Exam is designed and administered to evaluate retention of course content for the material covered in Chapters 7 through 9.

Chapter 7 Stoichiometry of Chemical Reactions
Chapter 8 Gases
Chapter 9 Thermochemistry

Each exam is worth a maximum of 100 points.

- Comprehensive Final Exam

  There will be one cumulative exam given at the end of the semester. It covers content from all nine chapters. This Final Exam is composed of multiple choice, multiple answer, matching, and true or false questions.

  The Final Exam is designed and administered to evaluate your knowledge of the Student Learner Objectives for this course. The topics for the Final Exam correspond to Student Learner Objectives one through thirteen. The Final Exam is an individual exam scheduled during Finals week at the end of the semester. It is worth a maximum of 100 points.

- Laboratory Grade

  Chemistry is primarily a "wet" science. The laboratory sessions are a necessary component of learning chemistry. Laboratory experiments will allow students to practice skills and make observations of concepts, theories, and laws. You must attend the laboratory sessions and demonstrate your ability to safely perform the experiment, physically manipulate the equipment, make experimental observations, and work cooperatively with your lab group. Rules of conduct for the laboratory must be followed to reduce the risk of injury. Failure to follow the safety rules will result in your dismissal from the course. To help ensure that each student is familiar with laboratory safety, all students are required to complete Experiment 1: Chemistry Laboratory Safety before performing subsequent labs. If a student misses their scheduled lab time for Experiment 1, there will be one opportunity to perform the lab at the end of the first week of classes.

Students are required to read the appropriate laboratory experiment and be prepared before the start of each laboratory session. Any special instructions, techniques or changes to the procedure will be discussed prior to the start of or during the experiment. Failure to be prepared for the laboratory session may delay or prevent you from performing the experiment.

The laboratory component will allow students to practice skills and make observations of concepts, theories, and laws. All lab components should be discussed with classmates to foster collaboration and develop teamwork.

The Laboratory Grade is determined taking a weighted average of the Pre-lab Questions Average, the Experiments Average, the Online Labs Average, and the Lab Quizzes Average.

The Pre-lab Questions Average is calculated as the simple average of the assignment scores remain after dropping the lowest score. The Pre-lab Assignment requires that students work either individually or cooperatively, in lab groups (i.e., teams), to achieve the following outcomes.

- Read the lab background information or introduction
- Read the lab procedure.
- Answer questions concerning concepts and procedures from the lab experiment.
- Submit the completed assignment before starting the experiment.

The Experiments Average is calculated as the simple average of assignment scores that remain after dropping the lowest score. The Experiments require that students work either individually or cooperatively, in lab groups (i.e., teams), to achieve the following outcomes.

- Successfully complete the lab within the duration of the lab period.
- Clearly and concisely record data and observations on the data sheets for the lab experiment.
- Perform the necessary calculations and interpretations.
- Interpret the results of the any calculation using that data or data provided for that purpose.
- Answer questions concerning concepts, theories, and laws illustrated in the experiment.
- Submit the completed assignment as scheduled.

The Online Labs Average is calculated as the simple average of the assignment scores that remain after dropping the lowest score. Online Labs require that students record observations, graph data, perform calculations, analyze data, and report conclusions, and to achieve the following outcomes.

- Clearly and concisely record data and observations.
- Create the necessary graphs from the observed data.
- Perform the necessary calculations.
- Interpret recorded data and observations, generated graphs, and calculated values.
- Report conclusions from interpreted data and observations, graphs, and calculations.
- Submit the completed assignment as scheduled.

The Lab Quizzes Average is calculated as the simple average of the quiz scores that remain after dropping the lowest score. The Lab Quizzes are designed to achieve the following outcomes.

- Perform calculations using data obtained during the experiment.
- Interpret the data from the experiment.
- Interpret the results of the any calculation using that data or data provided for that purpose.
- Answer questions concerning concepts, theories, and laws illustrated in the experiment.
- Submit the completed assignment as scheduled.

The Lab Report Average is calculated as the simple average of the lab report scores that remain after dropping the lowest score. The lab reports are designed to achieve the following outcomes.

- Provide an overview of the pre-existing work associated with the experiment.
- Summarize the data collected and observations recorded in the experiment.
- Present the data and observations in a more accessible and readable format.
- Present the interpretations of the data and observations.
- Contribute to the existing knowledge.

Each lab is based on a maximum of 100 points.

- Syllabus Quiz

  At the start of the semester there is a syllabus quiz. The role of this quiz is to help you become familiar with the contents of the course syllabus at the start of the semester. Student can work collaboratively on the quiz. The Syllabus Quiz Grade is worth a maximum of 10 points.

- Surveys

  There are three surveys this semester. Two of the surveys are provided through Blackboard. The surveys are to help your Instructor improve the design of the course and to address navigation problems. The third survey is the COM Course Evaluation which is administered by the College through CoursEval. Each survey is anonymous.

Determination of Course Grade/Detailed Grading Formula:
Your grade for the course is determined by the scores that you earn on the assignments and assessments. The points you earn for this course are the weighted sum of the grading categories.

Discussion Forums Grade

- There are four Discussion Forums. The first forum and the fourth forum are each worth a maximum of 10 points and the second and third forums is worth a maximum of 40 points. A grading rubric is provided for each forum. The grade earned for each forum is the rating assigned to the posts and replies in accordance with the grading rubric and due date.
- The Discussion Forums Grade is the sum for the four forum scores. It is worth a maximum of 100 points and **5.0% of the course grade**.

Presentation Grade

- Presentation Topic Selection Forum
  - The Presentation Topic Selection Forum is worth a maximum of 5 points.

- Presentation Outline
  - The Presentation Outline Assignment is worth a maximum of 35 points.
- Presentation
  - The Presentation Assignment is worth a maximum of 60 points.
- The Presentation Grade is the sum of the points from the Presentation Topic Selection Forum, plus the Presentation. It is worth a maximum of 100 points and 9% of your course grade.

Semester (Midterm) Exams and Chapter Tests Average

- Chapter Tests Average
  - Each Chapter Test is worth a maximum of 100 points.
  - The Chapter Test Average is calculated as the simple average for the Chapter Test scores after dropping the lowest score.
- Semester Exams
  - Each exam is worth a maximum of 100 points.
- The Semester Exams and Chapter Tests Averages is the simple average for the highest three scores with the lowest score dropped from the calculation.
- The Semester Exams and Chapter Tests Averages is worth a maximum of 100% and 45% of your course grade.

Comprehensive Final Exam Grade

- The Final Exam is worth a maximum of 100 points and 20% of your course grade.

Lab Grade

Each lab will be 100 points worth

- Pre-lab Questions
- Experiments
- Online Labs
- Lab Quizzes
- Lab Reports
- The Lab Grade is worth 25% of your course grade.

Syllabus Quiz Grade

- The maximum points that can be earned for the Syllabus Quiz is 10 points

You can keep track of your earned points in Blackboard (My Grades link in the Course Menu) and in Sapling Learning (Grades link in the list on the left-hand side). The above categories will be listed in the online grade book as listed above. Chapter Test grades will be immediately released. Other grades will be released as they become available. If you have any questions concerning your grade, please contact me. To save us both time when contacting me, clearly state the question, the assessment and other orienting information, and the nature of your concern. The maximum total points that can be earned for the course is calculated by summing the weighed percentages of the grading categories.
Your overall grade will be based on following grade formula:

Category	Maximum Points	Weightage
Discussion Forum Grade	100	5 %
Semester Presentation	100	5 %
Attendance & Semester		
Semester (Midterm) exams and Chapter test average	300 + 900	30 + 15 = 45 %
Comprehensive Final Exam	100	20 %
Lab Grade	1000	25 %
Total		**100 %**

Lowest midterm exam grade will only be replaced with final exam grade if exam is taken and final exam score is higher than the lowest exam score. If you miss midterm exam, lowest grade will NOT be replaced with final exam grade. If a student gets zero in any Midterm exam, it will NOT be replacing with final exam score.

Grading Scale: The table contains the grading scale applied to the points calculation previously described.

FN — An FN may be assigned at the discretion of the instructor in accordance with college policy.

I — An incomplete may be assigned at the discretion of the instructor in accordance with college policy.

W — A withdrawal may be assigned in accordance with college policy.

Letter Grade	Final Average in Percent
A	89.5 – 100
B	79.5 – 89.4
C	69.5 – 79.4
D	59.5 – 69.4
F	< 59.5

Make-Up Policy & Late Work: The course is designed to accommodate some of life's mishaps, difficulties, or tragedies by providing extended deadlines for many of the assessments and assignments. The course evaluation through CoursEval is an exception. After the initial due date, there may be an extended deadline to submit your assessment or assignment. After the extended deadline, the assignment or assessment is closed, and the link may be removed. Expect that no additional time will be provided.

The syllabus quiz, course surveys conducted by your instructor (not the CourseEval course evaluation), all graded forums, all lab assignments, the presentation, the semester exams, and the final exam have a 24-hour extension beyond the due date with no point deduction. After the extended deadline has passed those assignments and assessments are closed. After the extended deadline for the presentation has passed, it can be turned in late, for a maximum of half-credit, until the Sunday preceding the final exam.

The chapter tests have an extended deadline of seven days with a loss of 5% per day. After the extended deadline has passed, the unit tests are closed, and the points are forfeited.

If this provides insufficient accommodation, then the severity of life's mishap, difficulty, or tragedy is beyond the capacity of this course. Anyone experiencing such difficulty should consider withdrawing from the course and taking it after the difficulty has passed.

Course outline: Use this course outline and tentative class schedule to schedule your course activities for the semester. The following designations are used to indicate time periods and deadlines:

(B) – Blackboard: for activities, assignments and assessments that are completed online through Blackboard.

(L) – Chemistry Lab: for "wet" lab sessions. The lab is room S128 (MS128 label at the door) in the Science Building on campus. Members of Group 1 will meet on odd weeks from 6:00-8:50 pm and members of Group 2 will meet on even weeks from 6:00-8:50 pm.

(S) – Sapling Learning: for activities, assignments and assessments that are completed online through Sapling Learning.

Standard Due Dates and Deadlines: The standard due dates and deadlines for activities, assignments, and assessments in the course are nightly at 23:30 (11:30 PM).

Week	Topic(s)	Reading Assignments	Weekly Deadlines

1
Mon-07-Jun-2021
through
Sun-13-Jun-2021
	Lecture (B)
	• Course Introduction
	  • Sapling Learning
	  • Syllabus
	• CH 1: Essential Ideas
	• CH 2: Atoms, Molecules and Ions
	
	Lab
	• EXP 1: Safety in the Chemistry Lab
	• EXP 2: Making Measurements in the Chemistry Lab
	• EXP 3: Separating the components of ternary mixture
		• CH 1 & 2
		• EXP 1, 2 & 3 Procedures
		• Read Me First
		• Sapling Learning Orientation
		• Syllabus
			Mon-04-Jun-2021
			• Sapling Learning Sign-in (S)
			• Lab Safety (L)
			• Syllabus Quiz (B) **11:30 PM**
			• Lecture 1 (B)
			• EXP 1 Pre-lab (L)
			• EXP 1 Procedure (L)
			• EXP 1 Post-lab (L)
			
			• Lecture 2 (B)
			• EXP 2 Pre-lab (L)
			• EXP 2 Procedure (L)
			
			• Lecture 3 (B)
			• EXP 2 Procedure (L)
			• EXP 2 Post-lab (L)
			
			• EXP 3 Pre-lab (L)
			• EXP 3 Procedure (L)
			• EXP 3 Post-lab (L)
			Sun-13-Jun-2021
			• HWK – CH 1 & 2 (S) **11:30 PM**

2 Mon-14-Jun-2021 through Sun-20- Jun-2021	**Lecture (B)** • CH 3: Electronic structure and periodic properties of elements • CH 4: Chemical Bonding and Molecular Geometry • CH 5: Advanced theories of bonding **Lab** • EXP 3: Separating the components of ternary mixture • EXP 4: Periodic Table (Dry Lab) • EXP 5: Emission spectra and Related calculations (dry lab)	• CH 3 & 4 • EXP 5 and 6 Procedure • FAQs (as needed) • Presentation Topics	**Exam 1 – June 19, 2021 (Ch. 1, 2 & 3)** • Lecture 3 (B) • Lecture 3 (B) • EXP 3 Pre-lab (L) • EXP 3 Procedure (L) • EXP 3 Post-lab (L) • Lecture 4 (B) • EXP 4 Pre-lab (L) • EXP 4 Procedure (L) • EXP 4 Post-lab (L) • Lecture 5 (B) **Sun-20-Jun-2021 11:30 PM** • HWK – CH 3 & 4 (S) **11:30 PM**

Week	Topic(s)	Reading Assignments	Weekly Deadlines
3 Mon-21-Jun-2021 through Sun-27-Jun-2021	**Lecture** • CH 5: Advanced Theories of bonding • CH 6: Compositions of substances and solutions **Lab** • EXP 6: Lewis Structures and the shapes of molecules (Dry Lab) • EXP 7: Verifying the formula of Magnesium oxide • EXP 8: Heating a hydrate Lab • EXP 9: Endothermic and Exothermic Reactions (Optional)	• CH 2 & 3 • EXP 3 Procedure • FAQs (as needed) • Presentation Topics	**Exam 2: June 26, 2021 (Ch. 4,5 & 6)** • Lecture 5 (B) • EXP 7 Pre-lab (L) • EXP 7 Procedure (L) • EXP 7 Post-lab (L) • Lecture 6 (B) • EXP 8 Pre-lab (L) • EXP 8 Procedure (L) • EXP 8 Post-lab (L) • Lecture 7 (B) • EXP 9 Pre-lab (L) • EXP 9 Procedure (L) • EXP 9 Post-lab (L) **Sun-27-Jun-2021 11:30 PM** HWK – CH 5 & 6 (S) **11:30 PM**
4 Mon-28-Jun-2021 through Sun-04-Jul-2021	**Lecture** • CH 7: Stoichiometry and chemical reactions • CH 8: Gases • CH 9: Thermochemistry **Lab** • EXP 10: Conductivity of Salt solutions • EXP 11: Titration of strong acid • EXP 12: Determining a limiting reagent • EXP 13: Chemicals Reactions	• CH 7 & 8 • EXP 10 Procedure • EXP 11 Procedure • EXP 12 Procedure • EXP 13 Procedure	• **Exam 3 – July 1, 2021 (Ch. 7, 8, 9)** • Lecture 7 (B) • EXP 10 Pre-lab (L) • EXP 10 Procedure (L) • EXP 10 Post-lab (L) • Lecture 8 (B) • EXP 11 Pre-lab (L) • EXP 11 Procedure (L) • EXP 11 Post-lab (L) • Lecture 9 (B) • EXP 12 Pre-lab (L) • EXP 12 Procedure (L) • EXP 12 Post-lab (L) • EXP 13 Pre-lab (L) • EXP 13 Procedure (L) • EXP 13 Post-lab (L) **Sun-04-Jul-2021 11:30 PM** • HWK – CH 7, 8 & 9 (S) **11:30 PM**

Week	Topic(s)	Reading Assignments	Weekly Deadlines
5 Mon-05-Jul-2021 through Fri-9-Jul-2021 July 2, 2021: Last to withdraw without penalty	**Lecture** **Lab** • EXP 13: Evaluating the behavior of gases • EXP 14: Law of Hess • EXP 15: Energy content of foods	• Final exam review • EXP 13 Procedure • EXP 14 Procedure • EXP 15 Procedure	• EXP 13 Pre-lab (L) • EXP 13 Procedure (L) • EXP 13 Post-lab (L) • EXP 14 • EXP 15 • • HWK – CH 7, 8 & 9 (S) **11:30 PM** **Mon-05-Jul-2021** • No Class • Course Evaluation (B) • Lab Drawer Check-out (L) • Peer Evaluation (L) **Wed, July 7, 2021** • **Comprehensive Final Exam (B)**

Attendance Policy: All students registered in this class are expected to attend all face-to-face sessions, to log in to this course at least twice each week, to participate in the class during those online sessions, and to follow the same attendance policy as the traditional classes offered on campus. This policy follows the attendance policies prescribed in the current College Catalog (http://coursecatalog.com.edu/).

Failing to attend class, log into Blackboard and Sapling Learning, or to complete your work as scheduled demonstrates poor progress towards obtaining the course goals (objectives) and is detrimental to learning course material. If you fail to attend class or fail to log into Blackboard or Sapling Learning and are demonstrating poor progress towards obtaining the course goals (objectives), the instructor may administratively withdraw you from the course. For example, a student may log into the course multiple times a week but fails to complete or attempt the course evaluations. Since they have failed to demonstrate knowledge of the material through evaluation, this student has demonstrated poor progress towards obtaining the course objectives.

An estimate of the time per week that is necessary to successfully complete the course will vary with the expected or desired outcome by the student, the pre-existing skills and knowledge possessed by the student, the ability of the student to acquire and assimilate the course content, and the time required by the student to complete the assignments. A long-standing estimate is to multiply the number of lecture credit hours for a course by 2 or 3 and lab credit hours by 1 or 2. For this four-hour credit course of 3 lecture credits and 1 lab credit, that result is 7 to 11 hours. Thus, one should expect to spend 3 hours for the lecture component, plus 3 hours for the lab component, plus 7 to 11 hours studying per week on this course. Don't take my word for it, here are some links that validate this calculation.

Semester Survival Guide by Blinn College: https://www.blinn.edu/academic-advising/survival-guide.html

How Many Hours a Day Do You Have to Study for College Classes? by M.T. Wroblewski: http://oureverydaylife.com/many-hours-day-study-college-classes-4165.html

How Much Time Should I Spend Studying in College? by Kelci Lynn Lucier: http://collegelife.about.com/od/academiclife/f/How-Much-Time-Should-I-Spend-Studying-In-College.htm

Manage Your Time by HowtoStudy.com: http://www.howtostudy.com/manage-your-time/

Of course, mileage will vary and there are no guarantees that this will result in the desired outcome.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are only permitted to withdraw six times during their college career by State law. The last day to withdraw for the 1st 8 week session is October 7th, November 23rd for 16 week courses and December 3rd for the 2nd 8 week session.

It is your responsibility to withdraw from the course and file the appropriate "drop form" with the Registrar's Office. If you demonstrate insufficient progress in the course, the instructor may administratively withdraw you from the course. Examples of insufficient progress include, but are not limited to, failure to log into Blackboard for a one-week period, failure to submit four or more assignments by the deadlines for those assignments, failure to maintain a passing average for the class, or demonstrating poor progress towards obtaining the course goals (objectives).

If you stop attending class, fail to withdraw from the course, and are not withdrawn from the class by your instructor, you will receive the grade based on your accumulated points.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention is very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty, such as cheating on exams, plagiarism, or collusion, is an extremely serious offense and will result in at least a grade of zero on that assignment and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Ms. Sheena Abernathy, Science Department Chair, at 409-933-8330/sabernathy@com.edu.

Student Learner Outcomes	Maps to Core Objectives	Assessed via this Assignment
1. Define the fundamental properties of matter.	CT	Selected Exam Questions
2. Classify matter, compounds, and chemical reactions.	CT CS	Selected Exam Questions Presentation

Student Learner Outcomes	Maps to Core Objectives	Assessed via this Assignment
3. Determine the basic nuclear and electronic structure of atoms.	CT	Selected Exam Questions
4. Identify trends in chemical and physical properties of the elements using the Periodic Table.	CT	Selected Exam Questions
5. Describe the bonding in and the shape of simple molecules and ions.	CT	Selected Exam Questions
6. Solve stoichiometric problems.	EQS	Selected Exam Questions
7. Write chemical formulas.	CT	Selected Exam Questions
8. Write and balance equations.	CT	Selected Exam Questions
9. Use the rules of nomenclature to name chemical compounds.	CT	Selected Exam Questions
10. Define the types and characteristics of chemical reactions.	CT	Selected Exam Questions
11. Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems.	EQS	Selected Exam Questions
12. Determine the role of energy in physical changes and chemical reactions.	CT	Selected Exam Questions
13. Convert units of measure and demonstrate dimensional analysis skills.	EQS	Selected Exam Questions
14. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.	TW	Selected Experiment Grades
15. Demonstrate safe and proper handling of laboratory equipment and chemicals.	CT	Selected Experiment Grades
16. Conduct basic laboratory experiments with proper laboratory techniques.	TW	Selected Experiment Grades
17. Make careful and accurate experimental observations.	EQS	Selected Experiment Grades
18. Relate physical observations and measurements to theoretical principles.	EQS	Selected Experiment Grades
19. Interpret laboratory results and experimental data, and reach logical conclusions.	CT	Selected Experiment Grades
20. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.	CS	Laboratory Report Grade
21. Design fundamental experiments involving principles of chemistry.	CT	Selected Experiment Grades
22. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.	CT	Selected Experiment Grades
23. Demonstrate the ability to work effectively with others to support and accomplish a shared goal, while recognizing and respecting different viewpoints.	TW	Lab Grade

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook.<https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college career. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student that is needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to setup their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

COVID-19 Statement: All students, faculty and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. Students are required to watch a training video, complete the self-screening, and acknowledge the safety guidance at: www.com.edu/selfscreen. In addition, students, faculty, and staff must perform a self-screening prior to each campus visit. Finally, students, faculty, or staff which have had symptoms of COVID-19, received a positive test for COVID-19, or have had close contact with an individual infected with COVID-19 must complete the self-report tool.

Technology Outage: Students are responsible for maintaining their hardware, software, and Internet connection to the course. Expect that no additional time will be provided for hardware, software, or Internet connection problems that interfere with your ability to access the course and complete your assignments and assessments.

If a verifiable interruption in the access to the Course Management System that lasts for fifteen minutes or longer and occurs within twenty-four hours of an assignment or assessment, the deadline for the assignment or assessment may be extended at the discretion of your instructor.

Revisions: Your instructor reserves the right to revise this syllabus to accommodate changes in the course that may occur during the semester. If any changes to this syllabus occur during the semester, students will be provided with an announcement of those changes and will be given access to a description of those changes.

Acknowledgements: This syllabus was developed using a template developed by the COM Administration. Other parts of this syllabus were derived from the work of my professors and my colleagues. I thank them for their willingness to share their work.