I. This syllabus covers the General Chemistry 1 Lab. This lab is a standalone lab and does not have to be taken concurrently with Gen Chem 1311 (lecture). As such the course material between lecture and lab may not be related.

CHEM 1111 – (sections 101, 102, 103, 104, 14 and 115) General Chemistry 1 Laboratory/Prerequisite: None

II. STUDENT LEARNING OUTCOMES

This course is designed to give students hands on experience in dealing with chemical concepts. It will introduce the student to the techniques and procedures that are important to the successful practice of experimental general chemistry. At the end of the course the student should understand the technical aspect of chemistry, including developing a proper scientific approach to the performance and interpretation of experiments and experimental data.

III. INSTRUCTOR INFORMATION

Instructor: Mr. Arnold Mendez
E-mail: Arnold.Mendez@tamucc.edu

IV. TEXTBOOK AND OTHER MATERIALS:


Gen Chem Lab-Blackboard Website: Important information is posted weekly on Blackboard. The website has important information on; schedules, Instructor contact information, lab notebook, periodic table, safety, lab supplementary material, and lab announcements. Students are responsible for the information on Blackboard-visit it often.

Laboratory Notebook: Standard lab notebooks with pre-numbered pages are required.

Lab Coats and Safety Goggles: A white lab coat and spill proof safety goggles are required.

Required: A black marker (sharpie), small mm/inch ruler and calculator. During midterm and final exams you will not be allowed to use a programmable calculator please bring a simple function calculator to the exams.
V. COURSE GRADE:

**Lab Grade:** The laboratory grade will be based upon attendance, lab technique grade, lab reports, quizzes and final exam. The lab reports will be worth 100 points each and are **due at the beginning of the next lab period** following the completion of the lab work reported in the lab report (one week). **No late lab reports** will be accepted. **Each student may drop one lab report grade and one quiz grade, but not the final exam grade.** Final letter grades for the lab will be as follows: \( A = \geq 90\% , \ B = 89-80\% , \ C = 79-70\% , \ D = 69-60\% , \ F = < 60\% . \)

<table>
<thead>
<tr>
<th>LAB GRADE</th>
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</thead>
<tbody>
<tr>
<td>Lab Reports</td>
<td>1@100</td>
<td>1100</td>
</tr>
<tr>
<td>Daily Quizzes</td>
<td>50 points each</td>
<td>550</td>
</tr>
<tr>
<td>Lab Final Exam</td>
<td>1@200</td>
<td>200</td>
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<tr>
<td>Lab Technique Grade</td>
<td>1@100</td>
<td>100</td>
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<tr>
<td>Total Points Possible</td>
<td>1950</td>
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**Lab Reports:** You will prepare a lab report worth 100 points for each experiment you do.

**Lab Technique:** At the end of the semester, your Instructor/Teaching Assistant will assign you up to 100 points based on your lab technique during the term. Important criteria include being well-prepared, arriving on time, being punctual in starting and finishing experiments on time, neatness in carrying out and cleaning up experiments, being safety conscious and being organized in your work. Since the lecture portion of the lab is extremely important points may be deducted, at the discretion of the instructor, from the lab technique grade for every lab lecture missed. Also any student, who misses the first introductory/safety lab at the start of the semester, may at the discretion of the instructor have points deducted from their lab technique grade.

**Quizzes:** The questions will cover your understanding of the experiment to be covered that day as well as your understanding of the experiment performed the previous week.

**Final Exam:** The questions will cover the background material, techniques, reactions, chemicals, safety information, and chemical concepts.

VI. THE RULES

**LAB ATTIRE:**
Upon entering the lab, you are required to wear:
- Safety goggles (not to be confused with safety glasses - goggles have a seal around the eyes and can protect you from a chemical splash)
- Lab coat
- Long pants
- Sturdy closed-toe closed-heel shoes
- Shoes should cover your feet as much as possible.
• Leather top & slip-resistant sole are also recommended.
• Without proper attire, you will be asked to leave.

Eye Safety: When in lab, always wear your safety goggles. A first violation will result in a verbal notification. A second violation will result in a reduction in your "lab technique" grade. A third violation of the safety goggle rule will result in your removal from lab for that day, which will result in a 0 for that lab. If you need a break from wearing the goggles, step out into the hallway and remove them for a few minutes.

Clothing: No open toe shoes, shorts (or short dresses), or mid-drefs (short tops) are allowed in the lab. Please keep your skin covered as protection against chemical spills.

Cleaning and Waste Disposal: Please be neat to avoid spreading chemicals. Always wash your hands just before leaving the lab. Never take samples or glassware out of the lab. Do not place your coats, backpacks and other personal items on the bench tops or floor in the lab to avoid contamination with chemicals. They should be placed in the cabinets under the benches. During the experiments, you will generate several types of waste, which need to be handled properly. Chemical wastes should be placed in an appropriately marked waste bottle. Do not pour liquid waste down the drain unless instructed by your Instructor. Broken glassware should be placed in the broken glassware box. Never put glass into the trashcans.

Ask for Assistance: If you have any questions about the safety of any procedure, please ask your Instructor/Teaching Assistant before proceeding.

Academic Misconduct: All students are expected to conform to college-level standards of ethics, academic integrity, and academic honesty. By enrolling in this course, you agree to be bound by the Regulations and Procedures published in the TAMU-CC STUDENT HANDBOOK. Honesty in reporting results is one of the essential characteristics of your laboratory work. Relatively little of your grade depends on getting "good" quantitative results and you will be more severely penalized for misrepresenting results than for honestly reporting "poor" results. Copying lab reports, receiving any type of help on an exam or quiz from another person or any source (notes, calculator-memory, etc.) not authorized by the instructors shall be considered academic misconduct and as a result will be penalized to the fullest extent possible.

Electronic Devices: Chemistry labs require your full attention at all times. Therefore the use of cell phones (including texting), ipods, pagers, earphones, and other similar equipment is prohibited. Please make sure that your cell phones are turned off or inactivated.

LAB CONDUCT: All students should be on time and prepared for each lab session. Note that the quizzes will be given at the beginning of each lab period and only a certain amount of time will be allotted for each quiz. Therefore if you are late you will not be given any extra time to finish your quiz and no makeup quizzes will be given.
Furthermore, late arriving students at the discretion of the instructor may not receive credit for the Pre-lab (see following section) and since much of the material about safety and lab set-up is covered during the lecture any student that misses the lecture will not be allowed to complete the experiment. All students are also expected to follow proper laboratory conduct and behavior and treat the other students and the instructor with respect. If a student’s actions or behavior is deemed disruptive to the class by the instructor, the student will be asked to leave the class for that day. If the behavior persists, further disciplinary action may be taken, such as expulsion from the class. **ABSOLUTELY** no food or drink is allowed in the laboratory. *Students that find it necessary to eat or drink in the lab or behave in some fashion that is deemed by the instructor to be unsafe to themselves or others will be asked to leave lab for that day and will be given a grade of zero for that assignment.*

**VII. UNIVERSITY POLICIES**

**Notice to Students with Disabilities:** Texas A&M University-Corpus Christi complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office, located in Driftwood 101, at 825-5816. If you need disability accommodations in this lab please see me as soon as possible.

**Grade Appeal Process:** As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures.

These documents are accessible through the University Rules Web site at: http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Academic Advising:** The College of Science and Technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center is located in Faculty Center 178, and can be reached at 825-6094.
VIII. GUIDELINES FOR YOUR LAB REPORTS

Pre-lab: As part of each experiment, we ask that you prepare a pre-lab report in your lab notebook. This section should provide enough specific information on the procedure (e.g., identity and quantity of materials, reaction times, temperatures, etc.) to enable you to perform the experiment. The summary should provide an overview of the experiment showing your understanding of the techniques and concepts being studied. Pre-labs must be written before lab and will be signed by the lab Instructor/Teaching Assistant at the beginning of lab. The Pre-lab must be signed, to be graded as part of the Lab Report.

**Pre-lab Summary:** Summarize on one or two pages: Title of the experiment, purpose of the experiment, technique(s) or reactions(s) being used, and a brief chronological listing of the procedure you will follow in the experiment.

Notebook: All data and observations should be recorded in the lab notebook. The original data and observations from the lab notebook should be copied and submitted along with the Lab Report. The lab Instructor or Teaching Assistant will initial your lab notebook once you have completed the lab experiment and cleaned the lab equipment and your lab space. The notebook pages submitted with the Lab Report must be initialed to receive credit. Torn out original pages from the lab notebook are not to be submitted, only copies will be accepted.

Lab Reports: The full lab report should consist of a pre-lab/notebook (copies), lab report sheets, post lab questions, and pre lab question/assignment. Do not throwaway any of your lab reports until the semester is complete. Your graded and initialed lab report can and may be used to resolve any grade disputes.

Neatness: All lab reports should reflect university standards. Points will be deducted for lab reports with no name on the facing page, misspelled words, torn edges/perforations, and general unprofessional appearance.

GRADING SCHEME FOR LAB REPORTS (100 points total)

The following guidelines will generally be followed in grading lab reports.
- Pre-lab Summary and Notebook: 25 pts
- Lab Report Sheets: 25 pts
- Post-Lab Questions: 25 pts
- Pre-Lab Questions or Assignment: 25 pts
IX. GEN CHEM 1 LAB SCHEDULE—Spring 2012

The schedule below is a preliminary outline of the semester these labs/experiments may change. This is a tentative schedule. It is the student's responsibility to keep up with any changes announced during the lab, posted on Blackboard, or emailed.

Week beginning with: TOPIC
Mon. 1/16 Martin Luther King Holiday
Mon. 1/23 Introduction/Lab Safety
Mon. 1/23 Lab 1: Scientific Observations (w/modifications) (1)
Mon. 1/30 Lab 2: PROP:375 Separating Components of a Ternary Mix. (2)
Mon. 2/6 Lab 3: REAC:604 Observing Signs of Chemical Reactions (3)
Mon. 2/13 Lab 4: STOI:386 Determ. Emp. Formula of Copper Chloride (4)
Mon. 2/20 Lab 5: REAC:611 Observing Double Displacement Reactions (5)
Mon. 2/26 Lab 6: MISC:468 Radioactivity (8)
Mon. 3/5 Lab 7: THER:368 Heat of Neutralization (6)
Mon. 3/12 Spring Break
Mon. 3/19 Lab 8: REAC:414 Determ. Comparative Reactivity of Metals (7)
Mon. 3/26 Lab 9: SYNT:439 Synthesizing Aspirin (9)
Mon. 4/2 Lab 10: STRC:435 Chemical Models (10)
Mon. 4/9 Lab 11 To be determined
Mon. 4/16 Lab 12 To be determined
Mon. 4/23 Final Exam and Equipment Check Out/Cleaning