CHE 1120/1122 - General Chemistry I Laboratory and Lab Lecture
General Policies and Syllabus

Instructor: Dr. Hadi Arman Office: BSE 4.256 Office Phone: 458-6730

Office hours: Please check your Black Board page for days and location. Office hours are open to ALL students from all the sections.

Pre-requisites: Completion of or concurrent enrollment in CHE 1103.

Lab manual : General Chemistry I Lab Manual, 1st ed. **ISBN: 0558629024**. Available in the bookstore.

Text: The course is designed to complement CHE 1103. You must have a copy of the current book used in CHE 1103.

Attendance: Attendance is required for all lab periods. If you cannot attend your assigned lab period due to an emergency, or if you are more than **15** minutes late, you should contact your instructor immediately and make arrangements to attend another lab period in the same week. If you fail to contact your instructor and are more than 15 minutes late you will receive a zero for that lab. Make-ups will be allowed on the basis that the absence is justified by Lab coordinator and space is available. You may miss only 3 experiments before failing out of the course (automatic F in ASAP) . Attendance in lab lecture is mandatory, you will not be able to attend lab if you are absent to lab lecture for the corresponding lab.

Pre-Lab Quiz: (AKA Pre-Lab Quiz) Students are required to complete an on-line assignment before assisting to the corresponding lab. The assignment is related to the topic of the lab (safety questions related to the lab may be also included). **In order to complete the assignment, students must obtain least 70 points (out of 100) in each assignment. Students who fail to complete this assignment will not be allowed to take the lab and will receive a zero in that lab.** The assignment consists of a series (6-10) of multiple-choice and calculation problems formatted according to the following guidelines:

- The total allocated time is **60 minutes**

- You have **five attempts** allowed to take the quiz. Keep in mind that Black Board will display a different quiz on every attempt. If you feel like you need more practice, you are advised to start early.

- Only the latest grade will be considered.

- In order to encourage revision of the topics after a failed attempt, there is a minimum of 1 hour between attempts

- After the quiz is submitted the student's total score (not the score for each question) for the quiz will be displayed. To check specific questions or discuss your answers, students should assist to office hours. There are many opportunities (office hours, lecture, etc) to get help before the lab. Students are highly encouraged to take advantage of such resources before taking the quiz. If you feel like you need extra help, please make the proper arrangements in advance. If you don't complete the assignment, you will not be allowed to perform the experimental activity. There will be no exceptions.

Coordination with CHE1103: The lecture course might become a little behind the experimental schedule. Should that happen, please notify your instructors ASAP. Although we do not have any control over the lecture, we will provide you with additional material (problems, books, office hours) so you can perform the lab in a safe and efficient way.

Lab hours: There are three parts to this course that equate to 5 hours of lab: 1 hour in lecture, 3 hours doing the actual experiment, and 1 hour consisting of the pre-lab assignment to be completed on-line before entering the lab.

Safety Lab: Safety is a priority and must be considered at all times. Safety discussions will be held at the beginning of each laboratory session. Read and follow all safety rules in the laboratory textbook. If you **violate ANY safety rule**, you will be removed from the laboratory and receive a **"zero"** for that lab. Students are responsible to be familiar with all the procedures involved in each lab. If you have any questions, you should talk to the TA before starting the lab. Required attire Chemical splash goggles, lab coat, long pants, and closed-toe shoes are mandatory. Long hair should be tied back. If required, gloves will be provided by your TA. Inappropriate clothing will result in **immediate dismissal** from the lab and receive a **"zero"** for that experiment.

Clean-up: You are responsible for cleaning your lab hood and all equipment used during every lab session. You must have acquired your TA's signature in your lab notebook before leaving the lab. Your TA will not sign off until the student's area is clean. Lack of TA's signature will result in the **50% reduction** of the grade for a given lab.

Communication: Black Board will be considered the ONLY official communication tool. All the information posted on Black Board will be considered officially distributed. Students are responsible for checking the course page periodically. TAs will not take/return phone calls or answer messages send to personal E-mails

E-mail etiquette: Students are highly encouraged you to use proper manners when communicating with the instructors and/or the professor. Although this is not a topic of the course, it will help you to succeed in your career. Examples of such manners are listed here:

- http://nefe.danielsfund.org/manners/section_two/ct-telephone.html
- http://www.lifehack.org/articles/lifehack/how-to-talk-to-a-professor.html

Lab Report Grades: There will be two parts to the lab report. Late reports will be subject to a deduction of 20% per late day (5 days late, 100% of the grade). Regardless of the total number of points earned, if a student misses 3 or more labs, he/she will receive an automatic failing grade (F).

1. Pre-Experimental Write-up: Maximum of one page. Includes a general procedure, a list of materials to be used in the experiment, and a statement covering the safety and waste procedures. Due to your TA at the beginning of the lab period the experiment is performed in. All pre-lab questions are also due at this time, handwritten.

2. **Post Lab write up**: Maximum of two pages. Due at the beginning of the next lab period:

Introduction - with definitions to all words and a description of the concepts to be learned
Raw data – data retyped in a spreadsheet format (e.g.: M.S. excel)
Observations –qualitative annotations, which will affect the outcome of the experiment.

Results – Includes an example of each calculation (typed), results in an easy to read format with all graphs and tables labeled.

Discussion – explain the results and the observations obtained in the experiment and answer any questions.

Grading: The final grade will be based only on the following:
Laboratory Reports 20 %
Quizzes 20 %
Midterm Examination 25 %
Final Examination (comprehensive) 35 %

Grading scale:
88 – 100 % A
75 – 87 % B
63 – 74 % C
54 – 62 % D
< 55% F

(There will be no extra credit or curving of this scale. Rounding will be performed according to the criteria discussed in the course.)

Conflict resolution: If a conflict occurs during the course, students are highly encouraged to pursue the following procedure (all communications are considered confidential):

a) Discuss your problem with the TA, preferably by e-mail so there is documented evidence of your complain/issue. In all cases, students are encouraged to provide pertinent documentation that may help understanding the nature of the claim.

b) If the conflict persists, students should contact the Gen Chem I Lab Coordinator (Dr. Arman) using the Black Board e-mail. Alternatively, you can use the UTSA e-mail address (hadi.arman@utsa.edu).

c) If the conflict persists, students have the option to contact the Department Chair (Dr. Gorski, waldemar.gorski@utsa.edu).

Additional Policies

-This syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and it is as accurate and complete as possible. However, the instructor reserves the right to modify the syllabus, if necessary, during the course of the semester. All the changes will be announced in BlackBoard.

- The Americans with Disabilities Act (ADA) is a federal anti-discrimination statue that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Director of the Disability Services, in Room 2.03.18 Multidisciplinary Studies Building (MS) or call 458-4157. For additional information, please visit: http://www.utsa.edu/disability/students.html

Schedule for Labs:

Dates	Week	
8/25 -8/27	1	Not meeting
8/31 - 9/2	2	Safety etc.
9/7 - 9/9	3	Exp #1
9/14 - 9/16	4	Exp #2
9/ 21 - 9/23	5	Exp #3 parts B,C,D /Exp #4
9/28 – 9/30	6	Exp #5
10/ 5 - 10/7	7	Midterm
10/ 12 - 10/14	8	Exp #6
10/19 - 10/21	9	Exp #7
10/26 - 10/28	10	Exp #8
11/2 - 11/4	11	Exp #9/ Exp #3 parts A,E,F
11/9 – 11/11	12	Exp #10 / Exp #11
11/16 – 11/18	13	Check-out / review for Final
11/23 – 11/25	14	Not meeting
11/30 – 12/1	15	Final

Schedule for Lecture:

Dates	Week	Wednesday
8/ 25	1	Introduction
9/1	2	Exp #1
9/8	3	Exp #2
9/15	4	Exp #3/Exp #4
9/22	5	Exp #5
9/29	6	Review midterm
10/6	7	Exp #6
10/13	8	Exp #7
10/20	9	Exp #8
10/27	10	Exp #9
11/3	11	Exp #10/ #11
11/10	12	Not meeting
11/17	13	Review for final
11/24	14	Not meeting
12/1	15	Not meeting

Experiment	Title
1	Measurements and Significant figures
2	A Submarine Adventure: Density Saves the Day
3	Chemicals and their formulas
4	Moles and Chemical Formulas
5	Limiting and Excess Reagent
6	Soluble and Insoluble Salts
7	Vitamin C in Natural and Synthetic Fruit juices
8	Boyle's Law: Pressure-Volume Relationship in Gases & Pressure-Temperature Relationship in Gases
9	Determination of Specific Heat
10	Atomic Spectroscopy
11	Conductivity of Solutions

General Policies for Chemistry Teaching Labs

Department of Chemistry, UTSA

This is a memo of **General policies for Chemistry Teaching Lab** from the Department of Chemistry. The policies should be included in all labs' syllabi. The syllabi should be distributed to all students as well as all TAs.

I. *General Policies for students*

-Pre-requisites

Completion of or concurrent enrollment in the lecture.
(pre-requisites need to be listed specifically for a given lab)

- Lab Manual and Handout

You (students) are responsible for purchasing a hard copy of the selected lab manual. Please check Blackboard for the information. If handouts are used for a given lab, I (lab coordinator) will either post the handouts online, or distribute a hard copy in the class one week in advance.

-Responsibilities

All students, instructors/TAs and lab technicians will be requested to read the document "TA, Lab Tech and Student's Responsibilities" and sign your responsibilities statement. See the file for details.

- Safety Trainings and Required Safety Attire

Lab safety is a priority and must be considered at all times. Each student is required to watch two safety DVDs, read the document "UTSA Safety and Administrative Rules" and sign the attached safety statement as a commitment and contract with UTSA each semester. You are responsible to acquire your instructor/TA's signature as the proctor on the safety statement. Without a signed safety statement, you will not be allowed to do any experiments.

Chemical goggles and lab coats are mandatory for everyone in the lab if you or anyone else around is using chemicals or solutions, and when they are reachable. You are responsible for purchasing your own chemical goggles and lab coats. Occasional borrowing will be allowed with a log record. You should always wear gloves when you are using chemicals or solutions. The department will provide gloves for you.

You must follow safety rules and regulations. **ANY** violations of the safety rules will result in

immediate dismissal from the lab and you will receive a "**zero**" for that experiment and will not be allowed to make up the lab.

- Attendance and Makeup policies

Attendance is required for all lab periods. Students will be counted late if more than 15 minutes late to lab an receive a "zero" for that lab. If a laboratory period is missed, the grade for that period will be zero unless the absence is excused. Justified makeup labs will be allowed. See "makeup policy" for instruction.

-Communication

I will post my email address as well as all TAs' emails on the Blackboard account. I or TAs may use Blackboard email system to send out group emails to the class.
Blackboard will be considered the ONLY official communication tool. All the information posted there will be considered officially distributed. Students are responsible for checking the course page and emails periodically.

-Office Hours

Office hours will be posted on Blackboard page. Office hours are open to students from all the sections in the same lab course. If your Instructor/TA is unavailable during the office hours, you can file complaints to the lab coordinators via email or a written note.

-Coordination with the Corresponding Lecture

There might be a couple of instances where the lecture course gets a little behind from the lab schedule. Should that happen, please let me know ASAP. Although we do not have any control over the lecture, we will provide you with additional material (problems, books, office hours) so you can perform the lab in a safe and efficient way.

-Lab notebooks and lab Reports

Notebooks must have "carbon copy" pages that you can tear out and hand in **Prelab** prior to the experiments. You will use the prelab instead of the textbook while conducting the experiment.
It is your responsibility to make sure your TA has initialed your prelab and made a record.
If the experiment involved any chemicals, read and follow all safety rules in the laboratory textbook, and check material safety data sheet (**MSDS**,
http://www.utsa.edu/safety/#/laboratory/msds) and have a MSDS section on your prelab.
Without a prelab report or a MSDS section, you will not be permitted to do the experiment.
Post labs will be due the next class period following the experiment. Late lab reports will have 10 points deducted for every day they are late.

-Lab Hours and in Lab Instruction

Your instructor/TA may use around 15 minutes for a pre-lab experimental instruction about the operations. The rest of time is for you to perform the experimental section of the lab. You are encouraged to fully use the lab hours for experiments or related problems, including instrument/equipment operations, calculations and discussions.
You must follow your instructor/TA's instruction for experiments. You are not allowed to do any experiments without supervision from a qualified instructor/TA. If you think that your instructor/TA is not able to provide you appropriate supervisions, you have rights to file complaints to the Lab Coordinator with an email or a written note.

-Clean-up

See "responsibilities" document for requirement and policies. Up to 50% point deduction may apply to a given lab.

II. General Policies for Instructors/TAs

- Test experiments

You are responsible to provide students appropriate experimental instructions and operational supervisions during the lab. If you are not familiar with the experiment, conduct the test

experiments under the teaching lab conditions and under my supervision one week prior to the first lab session of the lab course. Contact me for arrangement. I will contact Lab Service Supervisors to request all lab supplies for your test experiments. This is very important and has been proven to be very necessary over the years and will be beneficial for you.

You need to keep track students' results for the key data with the range and the class average, compare to your own result, and report them to me. This will help keep track and improve the efficiency of the experiment design.

- In Lab Supervision

You are in charge of the lab and you need to ensure that the lab runs safely and smoothly. You should not leave students alone during the lab. When students are conducting experiments, you need to walk around the lab to supervise them and make corrections for them. You could temporarily stop their activities and call for everyone's attention if common errors and problems are found and provide them with additional instructions. The lab hours are not for grading or other activities.

- Office Hours

You (*Instructors/TAs*) need to post your office hours on WebCT/Blackboard page. Office hours are open to students from all the sections in the same lab course. You must be available during the office hours, or students may file complaints.

-Signatures on student's Prelab Report and Notebook

You must sign or initial students' prelab reports and make a record prior to the experiments to make sure they prepared for the lab. A MSDS section must be included in the prelab if the experiment involved any chemicals. Without prelab reports or a MSDS section if required or duplicated prelabs, students will not be allowed to do the experiment and get a zero without makeup permission. Students will use the prelabs instead of their textbooks while conducting the experiment.

You are responsible to monitor your students for cleaning up their working area. You must check with them and sign or initial students' notebooks for their cleaning before they leave the lab. See "responsibilities" for details.

Makeup Policy for Chemistry Teaching Labs

Department of Chemistry, UTSA

This is a memo of **Makeup Policy for Chemistry Teaching Lab** from the Department of Chemistry.

1. Attendance

Attendance is required for all lab periods. If a laboratory period is missed, the grade for that period will be zero **unless** the absence is excused. Only **two** excused absences will be granted for late registration, illness, death in the immediate family, court appearance, auto accident or traffic. Special flu season sick leave will be excused without proof if the university has a special permission announcement at the time.

2. Missing or Late for a lab

If you (students) know in advance that you will miss a lab, or if you missed a lab due to an emergency, you should contact your instructor/TA ASAP to request make up the lab via emails or written notes with justified excuses. If you are more than **15 minutes** late for a lab for any reasons, it is considered as a late lab. **Late labs are considered as missed labs**.

Regardless of the total number of points earned, if a student **misses 3 or more labs**, you will receive an automatic failing grade (F).

3. Make up policy for students

Makeup Labs will be handled individually on the basis that the absence is justified and space is available.

You should contact your original TA (OTA) immediately, at most within one day after you missed the lab. You **must** "cc" all communications with your OTA to the Lab Coordinator. The Lab Coordinator will make the makeup arrangement for you. At the time you make up the lab, you also need to obtain permission from your secondary TA (STA) through blackboard. You are not allowed to make up any experiments without supervision from a qualified instructor/TA or without a UTSA qualifying excuse. Once you have done the missed labs, you will acquire your STA's signature on your notebook and show it to your OTA when you turn in your post-lab reports.

It is YOUR responsibility to make to lab up THAT week, not that of your TA. Make sure that if you know you are going to miss lab in advance you make advanced plans for making up the lab.