


CHEM 1111 General Chemistry I Laboratory		
	Professors	Sections
	Amandeep Sra, Ph.D	1U1
	Yanping Qin, Ph.D	1U2
Term	Summer 2019	
Meetings	Workshops: SLC 3.102 Labs: SLC 3.202	

Professors' Contact Information

	Phones	Office	Email Addresses	Office Hours
Dr. Qin	972-883-6299	SLC 3.505	yxq083000@utdallas.edu	T 1.00 – 2.00 pm
Dr. Sra	972-883-4818	BE 2.328	amandeep.sra@utdallas.edu	M/W 2.30 – 4.00 pm

General Course Information

Pre-requisites, Co-requisites, & other restrictions	One year of High School Chemistry. No Audits allowed.
Course Description	These courses reinforce the concepts of Freshman Chemistry in the lab via experiments. Students are offered the opportunity to acquire basic laboratory skills and an appreciation for the presence of chemistry in daily living. The experiments are designed to demonstrate concepts including properties of inorganic substances, principles of structure and bonding, and elementary quantitative analysis.
Expected Learning Outcomes	<p><i>Students should be able to:</i></p> <ol style="list-style-type: none"> 1. Explain the importance of Lab Safety 2. Collect and organize data in written laboratory reports 3. Measure mass and volume of chemicals 4. Perform stoichiometric reactions 5. Learn the technique of titration
Required Texts & Materials	<p>An Atoms First Approach to the General Chemistry Laboratory, 3rd edition ISBN: 9781260795868 (Two-semester with ALEKS) OR ISBN: 9781307169324 (One Semester with ALEKS)</p> <ul style="list-style-type: none"> • Z-87 rated Safety Glasses or Goggles • Only three types of calculators are allowed during labs and workshops. TI – 30 Xa, TI-30 XIIS and TI-30 XIIB • Access to eLearning is needed to complete your Safety and Pre-lab quizzes
Supplemental Texts, Readings, & Materials	<ul style="list-style-type: none"> • Students are financially responsible for items checked out such as glassware and instruments • Other course materials may be recommended or required • Tutors: See the Chem. Dept. AA (BE 2.502) for an updated list of tutors

<p>Class Attendance</p>	<p><i>It is typical for the enrollments of all CHEM 1111 sections to be at a maximum (set by the Fire Marshall's regulations for the SLC laboratories). If you are enrolled in one Section, you cannot attend another Section.</i></p> <p><i>It is typical for the laboratory activities to utilize the entire 255 minutes of class time such that one cannot simultaneously enroll in other classes whose meeting days and times conflict with those of CHEM 1111.</i></p> <p>No cell phones or computers are allowed in the chemistry laboratories. If you need to make an emergency phone call, first notify your TA or lab instructor and then please step outside the lab.</p>
<p>Make-Up Labs</p>	<p>There are no make-up lab dates for any experiments! There are no scheduled make-up periods in the Gen Chem Labs. Make-ups are done during other lab sections on a space-available basis. If you miss your regularly scheduled laboratory session, and have a valid university excuse, you can make arrangements through your Instructor to make-up the lab during the other lab section in the same week (Tuesday or Thursday). This will be your only chance to make-up that particular experiment. Make-ups for any lab are not possible outside this given time frame.</p> <p>For students participating in UTD sports activities (the complete schedule must be attached and signed by responsible coach or team leader) and religious holidays the form should be submitted to the instructor on record at least 2 weeks prior to the event. In case of medical absence attach a doctor's note.</p>
<p>Penalty Points</p>	<p>Points can be deducted from your final grade for each experiment for any of the following reasons:</p> <ul style="list-style-type: none"> • Lack of participation in the workshop and/or the laboratory (absent* or inattentive) 5 – 50 points • Late lab report 10 points per day late • Late lab report (same day late submission) 5 points • Safety violations (see posted notes for details) 10 – 100 points • Illegible handwriting or computer generated work (unless otherwise arranged) 5 – 10 points • Calculations that are not complete or cannot be followed 5 – 15 points • Misuse of laboratory time (e.g. using cell phone) 5 – 10 points • Failure to clean up equipment, glassware, working area, community equipment (e.g. balance) 5 – 10 points • After a 10 minute grace period, students will not be allowed to attend the workshop and the lab. At the discretion of the instructor, under extenuating circumstances, the student may be allowed to participate in the lab but all points for the workshop will be deducted. • Any student who does not complete the pre-lab quiz <i>will not</i> be permitted to perform that day's experiment. Also, students with

	a score of zero on the pre-lab quiz will not be permitted in the lab. Therefore, students should read and understand the lab BEFORE they attempt the pre-lab quiz.
Workshops	During the workshop, students will work in groups, guided by the lab instructor and TA, to understand the concepts and techniques involved in each experiment. The goal here is to make the lab experience more enjoyable by assisting students to reach a basic, overall understanding of the experiment and the science. Students should read the lab prior to the lab period in order to be prepared for the workshop and the experiment. The workshop handouts will be collected at the end of the workshop period. Workshops count for 10% of the course grade.

Teaching Assistants and Lab Sections

Day/Time	Section	Teaching Assistant	E-mail
T 1:00 PM	1U1	Shahrivarkevishahi, Arezoo Firouzi, Hamid Reza	axs174930@utdallas.edu hxf180003@utdallas.edu
R 8:30 AM	1U2	Ahrari, Samira Faisal, Tahmid	sxa180022@utdallas.edu txf170001@utdallas.edu

The easiest way to contact an instructor and/or TA is via e-mail.

Every instructor and TA will check their e-mail frequently and they try to respond as fast as possible.

Please always include both – your TA and your instructor – in your e-mail.

Assignments & Academic Calendar

There will be twelve lab experiments during the semester. There will be no makeup labs and you are not allowed to perform your experiments in another Lab section. Your final grade for the lab will be determined after dropping one lowest lab score.

This schedule and timeline are subject to change at the discretion of the lab coordinator.

Day	Exp. #	Experiment	Report Due	PreLab No.
T May 28 R May 30	1	Syllabus/Check-in/Lab Safety Introduction to Basic Laboratory Measurements	T June 04 R June 06	1
Complete the online safety quiz				
T June 04 R June 06	2	Copper Cycle	T June 11 R June 13	2
T June 11 R June 13	3 4	Properties of Light Atomic Structure	T June 18 R June 20	3 & 4 (Double lab day)
T June 18 R June 20	7	Percent Composition	T June 25 R June 27	7
T June 25 R June 27	6	Molecular Geometry and Polarity	T July 09 R July 11	6
T July 09 R July 11	8 9	Limiting Reactant Qualitative Analysis	T July 16 R July 18	8 & 9 (Double lab day)
T July 16 R July 18	10	Titration: Unknown Diprotic Acid	T July 23 R July 25	10
T July 23 R July 25	12	Calorimetry	T July 30 R Aug 1	12
T July 30 R Aug 1	14	Capstone: Airbag Lab & Checkout	T July 30 R Aug 1	14-Research (info on eLearning)

Everyone must checkout on July 30/ Aug 01, 2019.

Failure to checkout will result in withholding of your final course grade.

Course Policies

<p style="text-align: center;">Safety</p>	<p>IMPORTANT: In accordance with University and Chemistry Department safety rules, any time anyone (student, TA, instructor, or visitor) is in a lab, Z87-rated safety eyewear must be worn. The <u>first violation</u> in the semester will result in a warning and removal from the lab until the safety eyewear is in-place. The <u>second violation</u> in the semester will result in dismissal from that lab period with no extra time being allowed for make-up of the work scheduled for that lab period. Similar penalties will apply if any other safety rules are violated. Please see “penalty points for details. In summary, all students are responsible for all information inside the undergraduate safety manual; it is located in the safety folder in eLearning.</p> <p>In addition arms, legs and feet should be covered in lab. Short pants and skirts (which expose calves or thighs) are not allowed. Sleeveless shirts (including spaghetti strap shirts), or shirts that expose your midriff are also not allowed—however, a lab coat may be worn over these shirts during lab. Closed-toed shoes that fully cover your foot are also required. Hair longer than shoulder length must be put up in an appropriate manner to keep it out of harms way.</p>
<p style="text-align: center;">Safety Quiz</p>	<p>Login to the elearning lab course. Read the syllabus and the safety documents in the safety folder. Begin the safety quiz. You have multiple attempts to obtain at least a 90% on the safety quiz. Failure to complete the Safety Quiz by the second week of lab will result in dismissal from the lab and you will receive a zero for that lab.</p>
<p style="text-align: center;">Lab Etiquette</p>	<p>Each student will be evaluated with respect to their adherence to good safety practices, advanced knowledge of the day’s experiment and the equipment involved, laboratory technical skills, and laboratory etiquette/professionalism.</p> <ul style="list-style-type: none"> • Students who miss more than three experiments FOR ANY REASON are advised to withdraw from the course. • All members of the group must be present during the entire experiment. Any member that leaves early or takes long breaks during the experiment will receive a grade of zero for that experiment. • No experiments can be made up • No section switching is allowed
<p style="text-align: center;">Pre-lab</p>	<p>Each week students are expected to prepare for the lab by doing: A. Reading and understanding the experiment B. Answering about 5-6 questions on eLearning for that particular lab. You will be given 30 minutes to answer the questions. It is absolutely imperative that you have read and UNDERSTOOD the lab prior to beginning the pre-lab quiz.</p> <p>The pre-lab quiz questions will be displayed one at a time, and you will not be permitted to go back, once you submitted an answer. Students are expected to take the pre-lab quiz on their own, without help from anyone or the internet. However, students are permitted to use their lab manuals or textbook during the pre-lab quiz.</p> <p><i>Pre-labs will be due at midnight the evening before you perform the experiment. Students who score a zero or do not complete the pre-lab quiz will not be permitted in the lab for that day. No make-up lab will be allowed.</i></p>
<p style="text-align: center;">Lab Write-Ups</p>	<p>There are no formal lab reports required for this course. However, you will turn in the data sheets with all the required information for each experiment. Where appropriate, it is essential that you include calculations, detailed observations, balanced equations, percentage error, a brief conclusion of the experiment, etc. Write-ups are due at the <u>beginning</u> of the next lab period. For example, if an experiment is performed between 8:30 – 12:45 AM on Tuesday, May, 28 2019, the write-up for that exp. will be due at 8:30 AM on Tuesday, June 04, 2019. LATE write-ups submitted later on the same day will receive a 5 point deduction. Any further LATE lab write-ups will be accepted but</p>

	will receive a 10 point deduction EACH DAY it is late. Any student found working on the lab report during workshop will automatically receive a 20 point deduction - 10 points for the lab report being turned in late and 10 points for lack of participation in the workshop.																																						
Data	Any data you collected during the experiment must be written in pen . In case of wrong entries, make a new table and explain what happened. Do not erase any original data. Use scientific notations to improve accuracy. 0.000789 does not equal to 0.0008, it's 7.89×10^{-4} . Calculating this way might improve % error. Keep all the data and calculations neat. If we can't read them, obviously we cannot grade them. Before you leave the lab, a TA or instructor must review and sign your data sheet.																																						
Clean-Up	Leave sufficient time at the end of laboratory period for cleaning up. Make sure you thoroughly clean all the equipment, glassware and also clean-up your bench. If you do not comply with cleanup and other general rules pertaining to the lab, your grade for that lab will be lowered. Please see "penalty points" for detail.																																						
Chemistry Stockroom SLC 3.221	Broken items will need to be replaced by filling out a breakage form with the appropriate information. The TA will help you fill out the breakage form and submit it to the chemistry stockroom on your behalf. You are also required to pay for any items in your lab drawer that become broken or lost during the SEMESTER. Broken and missing charges are summed and entered into your account at the end of each month by the Bursars office. THIS WILL BE STRICTLY ENFORCED. Failure to reconcile your account with the Bursar office will result in withholding of your CHEM 1111 grade.																																						
Lab Drawers	Failure to check-out of your laboratory drawer before Finals Week will result in withholding of your CHEM 1111 Grade.																																						
Special Assignments	None																																						
Extra Credit	None																																						
Grading (credit) Criteria	<p>Summary of Points:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="text-align: right;"><u>Pts.</u></td> </tr> <tr> <td>Pre-lab quiz</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Workshop</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Lab Write Ups</td> <td style="text-align: right;"><u>70</u></td> </tr> <tr> <td>Total</td> <td style="text-align: right;">100</td> </tr> </table> <p>There are a total of 10 experiments. One lowest lab grade will be dropped at the end of the semester.</p> <p>Your final letter grade for the course will be determined using a scale such as the one below where the class average is set at the "B-/C+" border (e.g., 79.5 points):</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>A+</td> <td>98 & above</td> <td>C</td> <td>73-76</td> </tr> <tr> <td>A</td> <td>93-97</td> <td>C-</td> <td>70-72</td> </tr> <tr> <td>A-</td> <td>90-92</td> <td>D+</td> <td>67-69</td> </tr> <tr> <td>B+</td> <td>87-89</td> <td>D</td> <td>63-66</td> </tr> <tr> <td>B</td> <td>83-86</td> <td>D-</td> <td>60-62</td> </tr> <tr> <td>B-</td> <td>80-82</td> <td>F</td> <td>59 & below</td> </tr> <tr> <td>C+</td> <td>77-79</td> <td></td> <td></td> </tr> </table> <p><i>Note: Each Section is a unique course; sections are not graded together, but we have uniform grading scales.</i></p>		<u>Pts.</u>	Pre-lab quiz	20	Workshop	10	Lab Write Ups	<u>70</u>	Total	100	A+	98 & above	C	73-76	A	93-97	C-	70-72	A-	90-92	D+	67-69	B+	87-89	D	63-66	B	83-86	D-	60-62	B-	80-82	F	59 & below	C+	77-79		
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	<i>If you suspect that an assignment has been graded incorrectly, you have <u>one week</u>, after the assignment is returned to you, to contact the TA/instructor to have the grade changed.</i>
Comet Creed	<i>This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same: “As a Comet, I pledge honesty, integrity, and service in all that I do.”</i>
UT Dallas Syllabus Policies and Procedures	<i>The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.</i>

These descriptions and timelines are subject to change at the discretion of the Professor.