CHEM 1111 General Chemistry I Laboratory		
Professors		**Sections**
UTD	Sandhya Gavva, Ph.D	103, 109, 110, 112, 114, 118, 119, 121, 123, 128, 129, 131, 602, 603
	Ruvini Kularatne	108, 605, 133
	Jason McAfee, Ph.D	101, 106, 115, 116, 120, 130, 132, 606
	Yanping Qin, Ph.D	102, 105, 111, 113, 125, 126, 127
	Amandeep K. Sra, Ph.D	604
	Daniel Tran, Ph.D	104, 107, 117, 122, 124, 601, 134
Term	**Fall 2013**	
Meetings	Workshops: SLC(MSET) 2.202, 2.203, and 3.102 Labs: SLC(MSET) 3.202 & 3.210	

Professors' Contact Information

	Phones	**Office**	**Email Addresses**	**Office Hours**
Dr. Gavva	972-883-2279	SLC 3.501	sgavva@utdallas.edu	T 12-1 pm W 4-5 pm
Ms. Kularatne	972-883-4817	BE 3.330B	rsk090020@utdallas.edu	W 3-4 pm
Dr. McAfee	972-883-2906	BE 3.330C	jason.mcafee@utdallas.edu	MWF 11-12 pm
Dr. Qin	972-883-6299	SLC 3.403	yxq083000@utdallas.edu	M 11-12 pm
Dr. Sra	972-883-4818	SLC 3.403	aks057000@utdallas.edu	MW 2-3.30 pm
Dr. Tran	972-883-4817	BE 3.330B	tran.daniel@utdallas.edu	W 3-4 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 Leaning Outcomes	*Students should:* 1. Be able to explain the importance of Lab Safety 2. Be able to collect and organize data in written laboratory reports 3. Know how to measure mass and volume of chemicals 4. Know how to separate a mixture 5. Learn the technique of titration
Required Texts & Materials	Laboratory Manual for General Chemistry laboratory I (CHEM 1111) ISBN : 9780077439682 (Two-semester) 9781121614154 (One Semester) • Z-87 rated Safety Glasses or Goggles • Calculator • Prelab handout downloaded from elearning for each lab (identical for each lab)

Supplemental Texts, Readings, & Materials	• 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 2.312) for an updated list of tutors • Interactive DVD-ROMs covering general chemistry are available via the CSA
Class Attendance	*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.* *It is typical for the laboratory activities to utilize the entire 180 minutes of class time such that one* ***cannot*** *simultaneously enroll in other classes whose meeting days and times conflict with those of CHEM 1111.* **No cell phones or computers are allowed in the chemistry laboratories. If you need to make an emergency phone call, please step outside.**
Make-Up Labs	**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 later in the **same week** (Tuesday to Monday). 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. **To attend make-up laboratory with another instructor, you must fill the make-up lab form and turn in to the lab coordinator** (Dr. Sra in SLC room number 3.403). You will receive an email from the lab coordinator confirming your assignment to another lab section. Forms should be turned in as soon as possible. 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 **at least 2 weeks prior to the event**. In case of medical absence attach a doctor's note.
Penalty Points	Points can be deducted from your final grade to each experiment for any of the following reasons: • Lack of participation in the workshop and/or the laboratory (absent* or inattentive) **5 – 50 points** • Late lab report **10 points per day late** • 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.** • **Students with no prelab submitted will not be permitted in the workshop and the lab for that day.**
Workshops	Students will work in groups during the first 45 min of the lab period. Workshops are *open discussions* designed to help you understand the concepts and techniques involved in each experiment. The goal here is to make the lab experience more enjoyable by assisting students reach a basic, overall understanding of the experiment and the science. It is advised to read and gain an initial understanding the lab prior to the lab period in order to be better prepared for both the Workshops and the Experiments. Student work in the workshop 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	Instructor	Teaching Assistant	E-mail
M 7:00AM	**101**	**Dr. Mcafee**	Alahakoon, Sampath	sba130030@utdallas.edu
	102	**Dr. Qin**	Bulumulla, Chandima	cdb130130@utdallas.edu
M 10:00 AM	**103**	**Dr. Gavva**	Alahakoon, Sampath	sba130030@utdallas.edu
	104	**Dr. Tran**	Bulumulla, Chandima	cdb130130@utdallas.edu
M 1 :00 PM	**105**	**Dr. Qin**	Long, Chao	cxl135330@utdallas.edu
	106	**Dr. Mcafee**	Li, Shaobo	sxl132830@utdallas.edu
M 4 :00 PM	**107**	**Dr. Tran**	Dharmarwardana, Madushani	mxd110630@utdallas.edu
	108	**Ms. Kularatne**	Li, Shaobo	sxl132830@utdallas.edu
M 7 :00 PM	**601**	**Dr. Tran**	Dharmarwardana, Madushani	mxd110630@utdallas.edu
	602	**Dr. Gavva**	Perera, Rangana	jrp130430@utdallas.edu
T 7.00 AM	**133**	**Ms. Kularatne**	Pathiranage, Taniya	txk121930@utdallas.edu
T 1:00 PM	**109**	**Dr. Gavva**	Li, Fei	Fei.Li@utdallas.edu
T 4:00 PM	**127**	**Dr. Qin**	Siriwardane, Dumindika	dxs124830@utdallas.edu
	128	**Dr. Gavva**	Li, Fei	Fei.Li@utdallas.edu
W 7:00AM	**110**	**Dr. Gavva**	Long, Chao	cxl135330@utdallas.edu
	111	**Dr. Qin**	Dharmarwardana, Madushani	mxd110630@utdallas.edu
W 10:00 AM	**112**	**Dr. Gavva**	Long, Chao	cxl135330@utdallas.edu
	113	**Dr. Qin**	Perera, Rangana	jrp130430@utdallas.edu
W 1:00 PM	**114**	**Dr. Gavva**	Onovwie, Rachel	oxo130430@utdallas.edu
	115	**Dr. Mcafee**	Perera, Rangana	jrp130430@utdallas.edu
W 4:00 PM	**116**	**Dr. Mcafee**	Onovwie, Rachel	oxo130430@utdallas.edu
	117	**Dr. Tran**	Wunch, Melissa	maw130430@utdallas.edu
W 7.00 PM	**603**	**Dr. Gavva**	Vasanthy, Karmegam	kxv131230@utdallas.edu
	604	**Dr. Sra**	Wunch, Melissa	maw130430@utdallas.edu
R 7.00 AM	**134**	**Dr. Tran**	Li, Fei	Fei.Li@utdallas.edu
R 10:00 AM	**118**	**Dr. Gavva**	Pathiranage, Taniya	txk121930@utdallas.edu
R 1.00 PM	**119**	**Dr. Gavva**	Ahmadi-Tehrani, Dara	dxa123830@utdallas.edu
	120	**Dr. Mcafee**	Zhang, Lei	Lei.Zhang7@utdallas.edu
R 4:00 PM	**129**	**Dr. Gavva**	Siriwardane, Dumindika	dxs124830@utdallas.edu
	130	**Dr. Mcafee**	Zhang, Lei	Lei.Zhang7@utdallas.edu
R 7.00 PM	**605**	**Ms. Kularatne**	Siriwardane, Dumindika	dxs124830@utdallas.edu
	606	**Dr. Mcafee**	Zhang, Lei	Lei.Zhang7@utdallas.edu
F 7:00 AM	**121**	**Dr. Gavva**	Vasanthy, Karmegam	kxv131230@utdallas.edu
	122	**Dr. Tran**	Onovwie, Rachel	oxo130430@utdallas.edu

Day/Time	Section	Instructor	Teaching Assistant	E-mail
F 10:00 AM	**123**	**Dr. Gavva**	Bulumulla, Chandima	cdb130130@utdallas.edu
	124	**Dr. Tran**	Li, Shaobo	sxl132830@utdallas.edu
F 1:00 PM	**131**	**Dr. Gavva**	Vasanthy, Karmegam	kxv131230@utdallas.edu
	132	**Dr. Mcafee**	Alahakoon, Sampath	sba130030@utdallas.edu
S 8:00 AM	**125**	**Dr. Qin**	Zoherh Hashami	zxh088000@utdallas.edu
S 10:00 AM	**126**	**Dr. Qin**	Zoherh Hashami	zxh088000@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. <u>There will be no makeup labs and you are not allowed to perform your experiments in another Lab section.</u> Your final grade for the lab will be determined after dropping the lowest lab score.

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

Week of:	**Exp. #**	**Experiment**	**Report Due** Week of
09/03 – 09/09/2013		Syllabus/Check-in/Lab Safety	
09/10 – 09/16/2013	1	Basic Laboratory Operations	09/17
09/17 – 09/23/2013	2	Copper Cycle	09/24
09/24 – 09/30/2013	3	Atomic Structure	10/01
10/01 – 10/07/2013	4	Properties of Light	10/08
10/08 – 10/14/2013	5	Periodic Trends	10/15
10/15 – 10/21/2013	6	Molecular Geometry and Polarity	10/22
10/22 – 10/28/2013	7	Percent Composition	10/29
10/29 – 11/04/2013	8	Limiting Reagent	11/05
11/05 – 11/11/2013	9	Qualitative Analysis	11/12
11/12 – 11/18/2013	10	Titration I	11/19
11/19 – 12/02/2013	12	Calorimetry	12/03
11/25 – 11/30/2013		Thanksgiving Break	
12/03 – 12/09/2013	14	Capstone: Airbag Lab & Check out	12/03

Nov 25th (Monday) is fall break and student needs to do CALORIMETRY experiment on December 2nd (Monday). Everyone must checkout during the week of December 3th, 2013. <u>Failure to checkout will result in withholding of grade</u>.

Course Policies

Safety	**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 first violation in the semester will result in a warning and removal from the lab until the safety eyewear is in-place. The second violation 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 at: www.utdallas.edu/nsm/chemistry/resources/safety.html
Lab Etiquette	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. If you do not attend lab, you cannot earn Lab Readiness Points. • 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
Prelab	Students will work in a group of two. Each week students are expected to prepare for the lab by doing: A. Read the experiment B. Be sure to answer the following four questions in your prelab paper: 1. Discuss the safety considerations in today's experiment and why each is necessary (be specific). 2. What are the goals of this experiment, and how will they be achieved (be specific)? 3. What are the relevant equations and calculations necessary to achieve those experimental goals? Define all terms, including constants. 4. How will you dispose of chemical waste for this lab? ***Prelabs will be collected at the beginning of the workshop section. Students with no prelab submitted will not be permitted in the workshop and the lab for that day. No make-up lab will be allowed.***
Lab Write-Ups	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 beginning of the next lab period (i.e., one week after the previous lab was completed). For example, if an experiment is performed between 8:30 - 11:30 AM on Tuesday, September 10, 2013, the write-up for that exp. will be due at 8:30 AM on Tuesday, September 17, 2013. LATE write-ups will be accepted but **10%** of the maximum points allowed will be subtracted from a late write up **EACH DAY** it is late. Your final lab write-up grade will be determined after dropping the lowest lab write-up score.
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, s TA 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 visiting the Chemistry stockroom (SLC3.221) and filling out a breakage form with the appropriate information. Broken charges are summed and entered into your account at the end of the semester. You are also required to go to the Bursars office and pay for any items in your lab drawer that become broken or lost during the SEMESTER. 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	**Summary of Points:** Notebook/workshops — Pts. 20 Lab Readiness — 10 Lab Write Ups — 70 Total 100 There are a total of 12 experiments. One lowest lab grade will be dropped at the end of the semester. 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): A+ 98 & above; A 93-97; A- 90-92; B+ 87-89; B 83-86; B- 80-82; C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 63-66; D- 60-62; F 59 & below *Note: Each Section is a unique course; sections are not graded together, but we have uniform grading scales.* *If there is a mistake on your grade, you have one week to change the grade.*

Field Trip Policies Off-Campus Instruction & Course Activities	*Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean. Below is a description of any travel and/or risk-related activity associated with this course.* **None**

Technical Support	If you experience any problems with your UTD account you may send an email to: assist@utdallas.edu or call the UTD Computer Helpdesk at 972-883-2911.
Student Conduct and Discipline	The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD printed publication, *A to Z Guide*, which is provided to all registered students each academic year. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Series 50000, Board of Regents, The University of Texas System*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391) and online at http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.
Copyright Notice	The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials, including music and software. Copying, displaying, reproducing, or distributing copyrighted works may infringe the copyright owner's rights and such infringement is subject to appropriate disciplinary action as well as criminal penalties provided by federal law. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. As a UT Dallas student, you are required to follow the institution's copyright policy (Policy Memorandum 84-I.3-46). For more information about the fair use exemption, see http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm

Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal from Class	The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, the instructor(s) cannot drop or withdraw any student. The student must do the proper paperwork to ensure that he/she will not receive a final grade of **"F"** in a course if he/she chooses not to attend the class once he/she is enrolled. **Undergraduates last day to withdraw with WL = Thursday, October 31, 2013.**
Student Grievance Procedures	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.
Incomplete Grades	As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.
Student AccessAbility	It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for a course, please discuss it with an OSA staff member and allow at least one week's advanced notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student

	AccessAbility for a confidential discussion. The primary functions of the Office of Student AccessAbility are to provide: 1. academic accommodations for students with a documented permanent physical, mental or sensory disability 2. non-academic accommodations 3. resource and referral information and advocacy support as necessary and appropriate. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at *disabilityservice@utdallas.edu*
Religious Holy Days	The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. **The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, in advance of the assignment.** The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time before/after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

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