CHEM 1445 Chemistry I for Non-Science Majors
Section 001 MWF 11:00 AM – 11:50 AM (SH 125)

Instructor: Dr. Seiichiro Tanizaki
Office Hours are MWF from 10:0 AM to 10:50 AM or by appointment.
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Course Description: This chemistry course is intended for non-science majors, focusing on concepts used in chemistry (or science in general) rather than algorithms to solve technical problems. The course is accompanied by the lab section which provides hands-on chemical experience of materials taught in lecture parts.

Required Textbooks and Other Course Materials:
1) The laboratory textbook is "*Laboratory Manual Chemistry in Context*" (7^{th} edition) from McGraw-Hill/American Chemical Society". This book is required for the course.
2) A scientific calculator.

Student Learning Outcomes: Current societal and environmental problems are discussed such as air pollution, ozone layer destruction, global warming, water, acid rain, and energy. Chemical principles will be introduced on a need-to-know basis. Students will learn to develop analytical and critical thinking skills for scientific problems they encounter in everyday life.

Attendance Policy: Attend **every** lecture. A very strong correlation exists between attendance and success in Chemistry 1445. Because the topics covered in this course build on each other, missing even one class can mean the difference between success and failure in the course. You must sign on the attendance sheet in class if you attend a class.

Expectations for Out-of-Class Study: Spend the necessary amount of time studying chemistry. The rule of thumb for succeeding in Chemistry is three hours of study for every hour of lecture. Since you have 3 hours of lecture per week, this means that at a minimum you should plan to study Chemistry 9 hours each week independently.

Safety Guidelines: IMPORTANT! You will be exposed to hazardous chemicals in this lab. Personal protective equipment (PPE) is necessary to protect your body. You will not be admitted into the lab if any of the following guidelines are not met. If you violate any of the following guidelines, you may be asked to leave the lab. All missed work will receive zero credit.
1) Goggles, gloves and aprons are provided and are required at all times.
2) Shoes that cover the entire foot are required at all times. Absolutely no exceptions will be made to this guideline. Warnings will not be issued.
3) Long pants and sleeves are highly recommended.
4) No musical or other entertainment devices may be used in chemistry lab at any time.
5) Cell phones are not permitted in lab and must be silenced and placed in your bag before you enter lab.

Mandatory Online Safety Training: Students registered for this course must complete the University's required "Lab Safety Training" prior to entering the lab and undertaking any activities. Students will be notified via MavMail when their online training is available. Once notified, students should complete the required module as soon as possible, but no later than their first lab meeting. Until all required Lab Safety Training is completed, a student will not be given access to lab facilities, will not be able to participate in any lab activities, and will earn a grade of zero for any uncompleted work.
1) You should have received an email from the UTA Compliance Department. Click on the link in the email (or navigate to https://training.uta.edu for the login page).
2) Log on using your network log-on ID and password (what you use to access email). If you do not know your NetID or need to reset your password, visit http://oit.uta.edu/cs/accounts/student/netid/netid.html.
3) The available courses for completion will be listed. For Chemistry 1445, complete the course entitled 'Student Lab Safety Training'.
4) If you did not receive the training email and you have not already completed the training you will need to contact the Helpline (817-272-2080) or email compliance@uta.edu.
5) Students who have not completed the training by census date may be dropped from the lab (and consequently the lecture).

Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e. September through next August) for all UTA courses that include a lab. If a student enrolls in a lab course in a subsequent academic year, he/she must complete the required training again.

All questions/problems with online training should be directed to the University Compliance Services Training Helpline at 817-272-2080 or by emailing compliance@uta.edu.

Other Requirements:
1) A student must familiarize herself/himself with all requirements and policies **in this course of the current semester.**
2) Prior to performing lab experiments, read the relevant section of the lab textbook which will be covered in lecture.
3) You must attend lab. There are no make-up labs. Information that stresses safety and technique is disseminated at the beginning of each lab period. **Students are expected to be in the lab on time, and they will not be admitted to the lab more than 15 minutes after it begins.** All missed work will receive zero credit. These 15 minutes are intended as a grace period for rare instances. It is not intended to become the norm. Abuse of this grace period will result in its cancellation.

Grading: The grade in this course will be determined in the following manner.

Lab Average	80%	(**Includes the in-class reaction essays of the films**)
Presentation	20%	
Course Grade	100%	

1) **You must receive at least a 60 % average in lab to be eligible to pass the course.** In other words, if your final lab average is below 60 %, then you will automatically receive F in this course.
2) (**Make-up Lab/In-Class Reaction Paper Policy**) No make-up labs/in-class reaction papers will be given, and any missed labs/in-class reaction papers will result in a grade of zero. However, the last lab score will replace the lowest score among previous lab/in-class reaction paper scores if it is to the student's benefit. For example, if you miss one of labs or in-class reaction papers, then the score of the missed lab/in-class reaction papers will be replaced by the final lab score. Final lab score will neither be replaced nor dropped. Make sure not to miss the final lab.
3) There will be no curving on lab scores in this course to a specific student.
4) **If you drop or fail Chemistry 1445, grades earned in the lab cannot be carried over when you re-take Chemistry 1445.**
5) All grades are calculated by rounding them off to two decimal places: If the digit to be removed is less than five, then it is rounded down. If the digit to be removed is equal to or larger than five, then it is rounded up. For example, if your calculated final grade is 89.564…, then your final grade is 89.56. Grades will be assigned according to the following scale.

Total Numerical Grade	Letter Grade
90 and above	A
80-less than 90	B
70-less than 80	C
60-less than 70	D
Below 60	F

Major Assignments and Examinations
Each student will take an in-class reaction paper after each film. Grades from in-class reaction papers are included as a part of lab grades. In November, each student will give an oral presentation about a chemical topic she/he choose and research on during the semester. Details of presentation requirements will be given separately. The presentation accounts for 20% of the course grade. There will be no make-up opportunities for a missed presentation.

Other Course Policies:

Cell Phones and Pagers (or any un-necessary electronic gadgets)
Silence all cell phones and pagers prior to class. No laptop or un-necessary electronic gadgets are permitted in classroom.

Blackboard
Students are regularly responsible for checking the blackboard course website (**https://elearn.uta.edu/**) as well as their UTA email (the one ending in "mavs.uta.edu") for correspondence and announcements related to the course. Instructional materials will be posted on the course website.

Electronic Communication
UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Drop Policy
Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/ses/fao).

Americans with Disabilities Act
The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act* (*ADA*). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity
All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but 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" (UT System Regents' Rule 50101, §2.2). Suspected violations of university's standards for academic integrity (including the Honor code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to resources@uta.edu, or visiting www.uta.edu/resources.

Resources

1) **The Chemistry Clinic** is located in Room 318 Science Hall and will be staffed with tutors available to answer your questions related to lecture and homework. Hours of the Chemistry Clinic will be announced on the front door of Room 318 SH. This service is free for students enrolled in Chemistry 1445.

2) **University College** is located in 205 Ransom Hall and offers free academic support for qualifying students and low-cost services for all students, including Cost Share Tutoring.

Bomb Threats: In the event of a bomb threat to a specific facility, University Police will evaluate the threat. If required, exams may be moved to an alternate location, but **exams will not be postponed**. UT-Arlington will prosecute those phoning in bomb threats to the fullest extent of the law.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located at the front/back of the room. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Tentative Lecture Schedule: The following represents a *tentative* schedule of lectures and examination material for this semester. Tentative exam dates are specified in **bold**. The exact dates of the four midterm exams will be announced in class. All due date of homework assignments are available directly on its website. You will be responsible for checking them and completing them by the due dates. **As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.**

Date		Lecture	Lab (Monday of The Week)
August	23	Course Orientation	No lab
	26, 28, 30	Film	No lab
September	2, 4, 6	Gas	No lab
	9, 11, 13	Chromatography	Check-in and Exp-1: Properties of O_2 and CO_2
	16, 18, 20	Weighing Air	Exp-2: Chromatography
	23, 25, 27	Cooling Water	Exp-3 (Part I): A Graphic Experience
Sept/Oct	30, 2, 4	Light	Exp-3 (Part II and Part III): A Graphic Experience
October	7, 9, 11	Molecules	Exp-5 (Part I and Part II): Light
	14, 16, 18	Moles and Molar Mass	Exp-6: Bonds, Molecular Models, and Molecular Shapes
	21, 23, 25	Energy Conservation	Exp-8: Chemical Moles
Oct/Nov	28, 30, 1	Fuels	Exp-9: An Energy Conservation Problem.
November	4, 6, 8	Biodiesel and Student Presentation	Exp-10: Comparison of Energy Content of Fuels.
	11, 13, 15	Water Hardness and Student Presentation	Exp-11: Biodiesel.
	18, 20, 22	Ions in Water and Student Presentation	Exp-14: Measurement of Water Hardness.
	25, 27, 29	Student Presentation and Film	Exp-15: Measurement of Chloride in River Water.
December	2, 4	Film	Check-out

Important Dates

September 02	Labor Day Holiday
September 09	Census Date
October 30	Last Day to Drop Classes (Please review UTA's Drop Policy in Undergraduate Catalog.)
November 28 – 29	Thanksgiving Holidays