

**Syllabus**  
**Chemistry 1465**  
**Summer I, 2012**

**Instructor:**

Dr. Jimmy R. Rogers  
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**Required Materials:** *Chemistry for Engineering Students*, Second Edition, by Lawrence S. Brown and Thomas A Holme  
Access to *Sapling Online Homework* (details to be given in class)

**Course Description:** An introduction to important concepts and principles of chemistry with emphasis on areas considered most relevant in an engineering context. Topics include chemical stoichiometry, bonding, chemical thermodynamics, equilibria, electrochemistry, and kinetics. Engineering students may substitute the eight hour sequence CHEM 1441 and CHEM 1442 for this class, but not either CHEM 1441 or 1442 alone. Students who complete CHEM 1465 and subsequently change majors to curricula that require both CHEM 1441 and CHEM 1442 may substitute CHEM 1465 for CHEM 1441. Prerequisite: high school chemistry and MATH 1323 or concurrent enrollment.

**Tentative Lecture Schedule:** The following represents a tentative schedule of lecture and examination material for this semester. *The exact dates of the four major exams will be announced in class.*

Day	Lecture Material
June 4 June 5 June 6 June 7	Chapter 1, "Introduction to Chemistry." Chapter 2, "Atoms and Molecules." Chapter 3, "Molecules, Moles, and Chemical Equations." Chapter 4, "Stoichiometry."
June 11 June 12 June 13 June 14	Finish Chapters 1-4. <b>Exam 1 over Chapters 1-4.</b> Chapter 5, "Gases." Chapter 6, "The Periodic Table and Atomic Structure." Chapter 7, "Chemical Bonding and Molecular Structure."
June 18 June 19 June 20 June 21	Finish Chapters 5-7. <b>Exam 2 over Chapters 5-7.</b> Chapter 8, "Molecules and Materials." Chapter 9, "Energy and Chemistry." Chapter 10, "Entropy and the Second Law of Thermodynamics."
June 25 June 26 June 27 June 28	Finish Chapters 8-10. <i>June 25 is the last day that you can drop a class.</i> <b>Exam 3 over Chapters 8-10.</b> Chapter 11, "Chemical Kinetics." Chapter 12, "Chemical Equilibrium." Continue Chapters 11-12.
July 2 July 3 July 4 July 5	Finish Chapters 11-12. <b>Exam 4 over Chapters 11-12.</b> Chapter 13, "Electrochemistry." <i>Independence Day Holiday. Classes do not meet.</i> Finish Chapter 13.
July 9	<b>Comprehensive Final Exam.</b>

**Dropping the Course:**

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. Contact the Financial Aid Office for more information.

**Paperwork:** When dropping the course, *you* are responsible for seeing that all of the proper paperwork is completed and submitted to the appropriate university officials. If this paperwork is not completed, you will receive a letter grade corresponding to your earned grade, including zeros for all missed work.

<b>Grading:</b>	Lab Average	25%
	Sapling Online Homework/quiz/attendance	10%
	4 one-hour exams	40%
	Comprehensive Final	25%

Four one-hour exams will be given. These exams will cover the reading, lecture material, and assigned problems. The final exam will be comprehensive and will be given on Monday, July 9. Grades will be assigned according to the following scale:

<u>Total Numerical Grade</u>	<u>Letter Grade</u>
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

No make-up exams will be given, and any missed exams will result in a grade of zero. However, the final exam score will replace the lowest one-hour exam score if it is to the student's benefit.

***If you drop or fail Chemistry 1465, grades earned in the lab cannot be carried over when you re-take Chemistry 1465.***

**Homework:** Sapling Online Homework will serve as 10% of your overall average. It is your responsibility to complete each assignment by the due date. Since the five week summer session moves at an accelerated pace, no extensions to the due dates will be given, so be sure to begin each homework assignment early.

**Attendance:** *Class attendance and punctuality is required, and each student is expected to attend every class.* Unannounced quizzes may be given, and these quizzes along with the homework and attendance will constitute 10% of the grade. Faithful attendance is mandatory (excessive absences will lower the final grade), but attendance alone is not sufficient for success. Students must actively participate in the course in order to succeed. Participation includes advance preparation of reading assignments and involvement with classroom discussions. Questions are always welcomed; I will be happy to re-explain concepts. Successful participation in the classroom will frequently stimulate continuing discussion outside the classroom, both with fellow students and with the instructor. These ongoing interactions will prove valuable, and they are to be encouraged. An important point is that class time is limited, and I will not have time to cover all of the material given as reading assignments. You are responsible for all of the material covered in the lectures, the assigned text, and the problems.

**Cell Phones:** Please silence all cell phones prior to class. *Texting during class is inappropriate and will not be tolerated.*

**Electronic Communication Policy:** The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. ***Students are responsible for checking their MavMail regularly.*** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.

**Examination Needs:** You must bring the following to each examination:

- Scientific Calculator (You may not use a graphing calculator or a calculator capable of storing alpha-numeric/textual material.)
- No. 2 pencils with eraser
- ScanTron 882-E (available at the UTA Bookstore)
- UTA Student ID Card or other valid Government-issued photo ID
- Students are not allowed to have access to cell phones or digital pagers during any exam.*

#### **Chemistry Assistance:**

**Chemistry Clinic:** The Chemistry Clinic, located in Room 318 Science Hall, will be staffed with tutors available to answer your questions related to lecture and homework. Hours of the Chemistry Clinic will be announced in class. This service is free for students enrolled in Chemistry 1465.

**Science Education and Career Center:** The Science Education and Career Center, located in Room 105 of the Life Science Building, provides a variety of materials for assisting Chemistry students, including old exams.

**SOAR Cost Share Tutoring:** SOAR (Students Obtaining Academic Readiness) is located in 132 Hammond Hall and offers free academic support for qualifying students and low-cost services for all students, including Cost Share Tutoring.

### Strategies for Succeeding in Chemistry 1465:

1. Attend *every* lecture. A very strong correlation exists between attendance and success in Chemistry 1465. 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.
2. Prior to class, read the chapter which will be covered in lecture.
3. Review your lecture notes after each class. Correct obvious errors and note topics which require further study or clarification.
4. Work all of the suggested homework problems. Do not look in the solutions manual until you have given your best effort to solve the problem on your own.
5. Use practice tests available from the Science Education and Career Center.
6. 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. This means that at a minimum you should plan to study Chemistry nine hours each week.
7. Don't procrastinate. These concepts take time to sink in, and you may have to practice these exercises over a period of many days in order master the necessary skills.
8. Form a study group. This is your first avenue for getting help. Be able to communicate with each other on short notice, not just before class.

### Academic Dishonesty:

All students are expected to pursue their scholastic careers with honesty and integrity, and the Department of Chemistry and Biochemistry will not tolerate academic dishonesty in any form. "Scholastic dishonesty includes but is not limited to cheating, 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." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, subsection 3.2, Subdivision 3.22)

Examples of academic dishonesty includes:

- exchanging answers or information during a test or quiz
- looking at another student's paper during a test or quiz
- bringing notes in any form into the test or quiz, including written notes (crib sheets), digitally stored information (including formulas, constants, alpha-numeric material or text), or notes stored in any other medium
- looking at a book or other unauthorized source during the quiz or test

During tests or quizzes, students are not allowed to use any hand-held calculators or computers which possess the capability of storing alpha-numeric or textual material. If the instructor allows the use of calculators on a particular test, then students may only use scientific calculators which are non-programmable. In addition, students are not allowed to have access to cell phones or digital pagers during any test or quiz. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

### Americans with Disabilities Act

The University of Texas at Arlington is committed to the spirit and letter of federal equal opportunity legislation. The Americans with Disabilities Act (ADA) provides those with disabilities with the same opportunities as all citizens.

If you require an accommodation based on disability, I would be happy to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.

**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.