

Syllabus and Course Information for

# Chemistry for Engineers

## CHEM 1465-001

### Summer 2015

**Text** Chemistry for Engineering Students 2<sup>nd</sup> Ed., Brown & Holme

**Place** Room 332 Science Hall (SH 332)

**Time** MTWH 10:30 am – 12:30 pm

**Instructor Information** Dr. Jennifer Rhinehart  
Science Hall 300 E  
(817) 272-1091  
rhineh@uta.edu  
**(Please include “CHEM 1465\_001” in subject line.)**

**Office Hours** Monday 1:00 pm – 2:00 pm and 4:30 pm – 5:30 pm  
Wednesday 1:00 pm – 2:00 pm and 4:30 pm – 5:30 pm

<b>Grading</b>	Homework	10%	A $\geq$ 90%
	Lab Average	25%	B $\geq$ 80%
	4 Exams	10% each	C $\geq$ 70%
	Final Exam	20%	D $\geq$ 60%
	In class quiz	5%	F $\leq$ 50%

**Important Dates**

Jun 8	First Day of Classes
Jun 11	Census Date
Jun 29	Last day to drop
Jul 13	Final exam 10:30 am – 12:30 pm

### **Course Content**

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.

## Class Schedule

<b>Jun 8</b> Class Intro/ Ch 1	<b>Jun 9</b> Ch 2 Atoms and Molecules	<b>Jun 10</b> Ch 3 Molecules and Moles	<b>Jun 11</b> Ch 3 and Ch 4 Stoichiometry
<b>Jun 15</b> Ch 4 Stiochiometry	<b>Jun 16</b> <b>Exam I – (1 hr)</b> Ch 5 gases	<b>Jun 17</b> Ch 5 Gasses	<b>Jun 18</b> Ch 6 Atomic Structure
<b>Jun 22</b> Ch 6 and Ch 7 Molecular Structure	<b>Jun 23</b> <b>Exam II – (1 hr)</b> Ch 7 Molecular Structure	<b>Jun 24</b> Ch 7 and Ch 8 Materials	<b>Jun 25</b> Ch 9 Energy and Chemistry
<b>Jun 29</b> Ch 9 Energy and Chemistry	<b>Jun 30</b> <b>Exam III – (1 hr)</b> Ch 10 Entropy	<b>Jul 1</b> Ch 10 and Ch 12 chemical Equilibrium	<b>Jul 2</b> Ch 12 Chemical Equilibrium
<b>Jul 6</b> Ch 12 Chemical Equilibrium	<b>Jul 7</b> <b>Exam IV – (1 hr)</b> Ch 13 electrochemistry	<b>Jul 8</b> Ch 13 Electrochemistry	<b>Jul 9</b> Ch 11 Chemical Kinetics

**\*Note:** 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. –Jennifer L. Rhinehart

### Homework

You will need a composition notebook in which to complete your homework assignments. At the beginning of each chapter I will hand out in class the homework assignment for chapter which will include book problems and additional problems. Note books will periodically be collected and graded on a ten point scale. 5 points will be awarded on completeness and 5 points award base on randomly graded problems. You will need to show all your work to obtain both completeness and correct answer points.

### In class quizzes

At the end of every class we will have a 5 point quiz based on the topics cover during that class.

## Key Notes:

1. Engineering students may substitute the eight hour sequence CHEM 1441 and CHEM 1442 for this class, but not either CHEM 1441 or 1442 alone.
2. All students who enroll in Chemistry classes should have had high school chemistry and MATH 1323 or concurrent enrollment.
3. Make-up examinations will **NOT** be given [no books, no caps, no cell phones, no music devises etc. only allowed a simple calculator and ID required]. Academic make-ups will need to be completed before the exam is given.
4. Your performance will be evaluated by and course grade determined from the scores received on the four exams, homework, Lab average and the comprehensive final examination according to the grading scale above.
5. You may use the final exam to replace your lowest mid-term exam if beneficial.

## General Notes:

1. At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have elected to take attendance but it will not factor attendance into the grade.
2. **Examinations Policy: READ THIS VERY CAREFULLY!** For examinations, students will be required to present current UTA ID, and any calculator for inspection. **Exams turned in by students without ID will not be graded.** Only simple arithmetic calculators will be allowed, no complex graphing and equation-storing calculators will be permitted (for obvious reasons). During examinations, students must hand in their exam papers when they leave the room for any reason. After this, the student **cannot** return and resume the examination. A student who arrives late for any examination will be allowed to take the examination **only if no other student has finished the exam and left the room. Students must be in line to turn in their exams at the end of the exam period or it will not be graded.**
3. **Exam Re-grade Policy:** If you feel an exam question was graded incorrectly you may submit your exam to be re-graded immediately (before you leave class the day it is returned). Your entire exam will be re-graded. You will have **one** opportunity for an exam re-grade if you do not exceed 5 points returned.
4. **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/aao/fao/>).

5. **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](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.
6. **Title IX:** The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).
7. **Academic Integrity:** Students enrolled all UT Arlington courses 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.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per 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.

8. **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>.

9. **Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online 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>.
10. **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. 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 individuals with disabilities.
11. **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 visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).
12. **Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.