

**CHEM 1312.001 - General Chemistry II Syllabus**  
**MWF, 10:00-10:50 am, Ratliff Building North (RBN) 3035**  
**Spring 2009**

**Instructor**

Dr. Jason Smee ([jsmee@uttyler.edu](mailto:jsmee@uttyler.edu))  
RBS 3030, 903-566-7069  
Office hours: MTWRF 9:00–10:00 am  
Or by appointment (phone, email, in person, etc.)

**SI Leader**

Khadi Camara

**Introduction/Course Description**

In General Chemistry II, the fundamental principles learned in General Chemistry I will be explored in greater depth. Examples of the major topics to be discussed include bonding, chemical equilibrium, acid-base concepts, thermodynamics, kinetics, electrochemistry, and nuclear chemistry. At the completion of the course, students should be able to apply the scientific models learned in order to predict the composition, structure, properties, and reactivity of matter. In addition, roles of chemical professionals and career opportunities in chemistry will be discussed. The impact of chemistry on everyday life and on the environment is discussed whenever possible. This course will help you to develop the ability to solve qualitative and quantitative problems, promote original thought, and encourage the use of logic in problem solving. You will also learn good study habits as well as how to work and learn independently.

**Student Learning Outcomes**

By the end of the course, you should be able to

- understand the importance of intermolecular interactions and be able to predict trends in physical properties based on this understanding.
- determine the rate of a reaction and its dependence on concentration, time, and temperature.
- apply the principles of equilibrium to aqueous systems and use LeChatelier's Principle to predict the effects of concentration, pressure and temperature changes on equilibrium mixtures.
- understand and perform calculations with the thermodynamic functions, enthalpy, entropy, and free energy.
- understand the construction and operation of galvanic and electrolytic electrochemical cells and determine standard and non-standard cell potentials.
- understand nuclear decay processes.

**Required and Recommended Materials**

The **required** text for this course is *Chemistry: the Central Science*, 11th Edition, by Brown, Lemay, and Bursten w/ MasteringGeneralChemistry on-line supplement. **You MUST have *MasteringChemistry* access to complete the online homework assignments.** ISBN numbers are:

- 1) Textbook and *MasteringChemistry* bundle (recommended): 9780135031483
- 2) Textbook only: 9780136006176 (must purchase *MasteringChemistry* separately).
- 3) *MasteringChemistry* on-line supplement: 9780321582126 (needed if using a used textbook). Access can also be purchased at [www.masteringchemistry.com](http://www.masteringchemistry.com)

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**Students that have used *MasteringChemistry* within the last year-and-a-half can still access the on-line homework system using the same login name and password. You do not have to purchase another access code!**

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- 4) A scientific calculator (capable of logarithms and exponents) is also required.
- 5) The *Solutions to Red Exercises*, ISBN-13: 9780136002871 and the *Student's Guide*, ISBN-13: 9780136002642 are helpful, but not required.
- 6) *The Official Guide for Preparing for Your ACS Examination in General Chemistry* by L. Eubanks and I. Eubanks (ISBN-13: 9780970804204) is highly recommended to prepare for the final exam. It will be available for purchase from the Student Affiliates of the American Chemical Society later in the semester.

### **Course Requirements**

- The prerequisite for this course is satisfactory completion of General Chemistry I (CHEM 1311).
- The class will meet January 12 through May 4 at 10:00 a.m. – 10:50 a.m. on MWF with the exception of Martin Luther King, Jr. Day (January 19) and Spring Break (March 9 – 14).
- **The last day to drop is Wednesday, March 25.**
- Attendance will be taken daily and will be considered when assigning borderline grades. If you are unable to attend a class meeting, all discussed material and all given assignments are your responsibility.
- You must study outside of class to be successful in this course. Learning chemistry requires daily study, practice, and drill. Expect to spend about three hours outside of class for every one hour in class.
- General Chemistry II Laboratory is NOT part of this course. However, General Chemistry II Laboratory (CHEM 1112) should be taken concurrently with this course. You cannot use this lecture course as part of your degree requirements without the corresponding laboratory course.

### **Online Content**

- On-line content for this course will be on UT Tyler's Blackboard server. Helpful and important course information such as lecture notes, exam date reminders, and homework due dates will be posted here.
- Lecture notes will be posted on Blackboard prior to covering the material in class. You may want to print these notes and bring them to class. *Remember, this material does not replace the actual lecture!*

#### **To log on to Blackboard and enroll in this course complete the following:**

1. Go to [ccs.uttyler.edu/blackboard](https://ccs.uttyler.edu/blackboard) or follow the "Blackboard Log-in Link" at the bottom of the UT Tyler home page ([www.uttyler.edu](http://www.uttyler.edu)).
2. Click the "Login" button and enter your "Username" and "Password". This will take you to your personal Blackboard home page. You will see this page every time you "Login" to the Blackboard server. This is NOT your course; this is just your Blackboard home page.

**What is my username and password for Blackboard?** See the Student FAQ on the main Blackboard page or go to <http://blackboard.uttyler.edu/fag/student-faq.htm>.

3. To enroll in this course find **2009-SPRING-CHEM-1312.001-General Chemistry II** by clicking on the "Courses" tab, followed by selecting "Chemistry" under "Course Catalog". **DO NOT CLICK ON THE COURSE NAME**, click on the "Enroll" button to the right of the course name. You will be prompted to enter a one-time access code.

Blackboard Enrollment Access Code = **smee123** (lower case only, no spaces)\*

*\*Note: This is not your Blackboard login or password; it only allows you to enroll in this course on Blackboard. After enrolling in this course, it will be listed under "My Courses" whenever you log in to Blackboard.*

### Homework (MasteringChemistry System)

- Homework will regularly be assigned for you to complete outside of the lecture class time. All of these assignments will be posted on the Blackboard website under “Announcements”. Such assignments will include reading material from the text as well as the online homework. It is very important that you complete such assignments in a timely manner. *All online homework problems accessed through the MasteringChemistry website, count as 30% of your total course grade.* The web site for the online homework system is [www.masteringchemistry.com](http://www.masteringchemistry.com).

To access the online homework go to [www.masteringgeneralchemistry.com](http://www.masteringgeneralchemistry.com) and click on the Brown/Lemay/Bursten’s text to enter the on-line homework system. Complete the following:

- If you used the online homework over the last year and a half at UT Tyler you can continue to access the site using your same login and password. Follow the instructions on the site if you have forgotten your login credentials.
- If you have not used the online homework at UT Tyler, you will have to register as a first time user by leaving “No, I am a New User” selected and then type in the Access Code that you have purchased. **MAKE SURE TO INPUT YOUR NAME AS REGISTERED AT UT TYLER WHEN YOU SET UP YOUR NEW USER ACCOUNT.**

After receiving access to the on-line homework system, enroll in the course using the ID below.

- MasteringGeneralChemistry Course ID = **SMEE2009SPRING**
- Student ID = anything you want

### Exams

- Exams will be in multiple-choice format and will cover material discussed in lecture AND from the text.
- For each exam, you are required to bring a scientific calculator, a pencil, and identification. *You cannot take an exam without these items!*
- A 3½ x 5 inch note card (handwritten, no photocopies or printed materials) is permitted for each exam.

#### Tentative Exam Schedule

Exam 1 Wednesday, February 4

Exam 2 Wednesday, March 4

Exam 3 Wednesday, April 1

Exam 4 Wednesday, April 29

**Final Exam Wednesday, May 6 (10:15 am – 12:15 pm)**

- The exam make-up policy is very strict. **Under no circumstance will an exam be given after the scheduled date, no exceptions.** A missed exam due to an excused absence will be handled as follows.
  - 1) If you know that you will be missing an exam due to an excused absence, then you can take the exam early. To do so you must give me at least one week’s notice. You will not be allowed to take the exam after the scheduled exam date so plan ahead if you know you will be absent.
  - 2) For any unplanned absence, such as illness, car-trouble, funeral, etc. the final exam will replace the exam you missed.
  - 3) Missing a second exam will require a special meeting with me to determine an appropriate action. Such an action may include but is not limited to withdrawal from the course.

- The final exam will be a nationally standardized American Chemical Society exam. The coverage will be *comprehensive* over ALL topics in General Chemistry (including General Chemistry I). **You must take the final examination to receive a passing grade in the course.** Final exams cannot be taken early and there will be no make-up of the final exam!
- Take advantage of instructor's office hours, supplemental instruction, and help sessions to best prepare for exams. The instructor will give help sessions prior to each exam if requested.

### Grading

- Four (4) major examinations, on-line homework, and a comprehensive final examination will be used to assess your performance in the class. Grades will be posted on Blackboard. The grade will be weighted as follows:

4 exams	56 %
Homework	30 %
Final Exam	14 %
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Total	100 %

- Only your cumulative homework percentile score will be posted on Blackboard; it will be updated periodically throughout the semester.
- Your final exam score will replace your lowest exam score if the final exam score is higher. For example, suppose you make the following grades **60**, 80, 85, 85 and a 75 on the final. Your final grade will be calculated based on the scores **75**, 80, 85, 85 (and 75 on the final) where the 60 was replaced with the 75. Only one low score will be replaced.
- Graded Scantrons will not be returned during class time, but will be available in my office. You should always get your Scantron within one week after taking an exam. If you believe a grading error has occurred, then please see me promptly!
- Grades will tentatively be based on a 90/80/70/60 scale, but may be adjusted based upon my evaluation of the overall class performance. Attendance, class participation, and initiative will be considered for borderline grades. SI sessions will be conducted during the semester and I will be available during my office hours (feel free to stop at other times; I have an open door policy). **Do not** wait until the last minute before an exam to seek assistance.

### Summary of Important Dates

February 4 (Wednesday)	Exam 1
March 4 (Wednesday)	Exam 2
March 9 – 14 (Mon – Sat)	Spring Break, no classes
March 16 (Monday)	Deadline to Apply for August Graduation
<b>March 25 (Wednesday)</b>	<b>Last Day to Drop with a "W"</b>
April 1 (Wednesday)	Exam 3
April 29 (Wednesday)	Exam 4
<b>May 6 (Wednesday)</b>	<b>Final Exam (10:15 am – 12:15 pm)</b>

## University Policies

### Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

### Grade Replacement/Forgiveness

If you are repeating this course for a grade replacement, you must file an “intent to receive grade forgiveness” with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

### State-Mandated Course Drop Policy

- Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of Classes for the specific date).
- Exceptions to the 6-drop rule include, but are not limited to, the following: totally withdrawing from the university; being administratively dropped from a course; dropping a course for a personal emergency; dropping a course for documented change of work schedule; or dropping a course for active duty service with the U.S. armed forces or Texas National Guard.
- Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

### Disability Services

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

### Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second-class meeting of the semester.

### Student Absence for University-Sponsored Events and Activities

Should you plan to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time, the instructor will set a date and time when make-up assignments will be completed.

### Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.