CHEMISTRY 115A - ADVANCED GENERAL CHEMISTRY

FALL 2017 web: http://chemmac1.usc.edu/chem115/

FACULTY
Prof. Jessica Parr
Office: SGM 445
(213) 821-6614
parr@usc.edu
Office hours
M 12 – 2 pm; Tu 9:30 – 11:30 am

LEARNING OBJECTIVES
Chem 115A introduces chemical principles including: atomic theory, bonding models, stoichiometry, gas laws, thermochemistry, intra-molecular and inter-molecular interactions. The lecture portion of the course presents the historical development of the scientific laws, theories and models. The course will address how these laws, theories and models are used in current scientific research, particularly their use to solve pressing societal issues such as environmental concerns and the development of alternative energy sources and novel materials. Through the examination of how these principles are applied to nanoscience, biology and medicine, students gain a greater appreciation for the physical world. Students will apply the knowledge that they gain during the lecture in a weekly three-hour laboratory period. During the laboratory section students will collect data, analyze their results and produce a weekly written report, gaining experience communicating scientifically.

LECTURE
MWF 9-10; SGM 101

MIDTERM EXAMS
Th 3:30-4:30; SGM 101

TA
Mahta Barekatain
Swetha Erukala
Muhammet Mammetkuliyev
Matthew Voegtle

SI LEADER
Rohan Anand rhohanana@usc.edu

TEXTBOOKS
Required:
3. Student Solutions Manual for the textbook by Freeman

WEBSITE
http://chemmac1.usc.edu/chem115/
The Web will be used extensively in this course for instructions, homework, labs and for distribution of information. An interactive bulletin board is included. Check it often as well as the messages section. Make sure you have access to the Web and set up your password. We do not use Blackboard.

LECTURES
Chapters 1-3, 11, 9, 12 and 4-6 will be covered this semester. The order has been changed to coincide with Chem 105a. Reading and problem assignments will be given each Wednesday and posted on the website. The textbook is supplemented with material relevant to current research topics in chemistry. Full attendance at all lectures is expected. You are responsible for any announcements made in lecture and all material presented whether or not it is in the textbook.
HOMEWORK Homework is assigned by chapter. Homework is not collected, but it is very important that you do the assigned homework to keep up with the course materials. Answers to any assigned even problems will be posted on the class website.

READING ASSIGNMENT Because Chem 115 is an advanced course, the lectures will not necessarily revisit every section in the textbook, especially the basic ones. It is therefore critical that you read the book thoroughly. Reading assignments will be assigned weekly and posted on the web. You should complete the reading assignment before you come to each class.

WEB QUIZZES A web quiz on the materials related to that week’s assigned homework is given each week. A new quiz is posted at 2:00 p.m. every Wednesday and your answers are due the following Wednesday at 1:00 pm. These quizzes can only be taken on the web. Make sure you have web access. You can print the quiz before you answer but you can take the quiz only once.

CALCULATOR Required for exams. Your calculator must have a log key. All cell phones and portable electronic devices must be turned off.

LABORATORY There are no labs the first week of classes. A mandatory lab introduction lecture will be given at 3:30 p.m. on Thursday, August 24 in SGM 101. If you do not attend the lab lecture on 8/27, you will not be able to enter the lab. Purchase the lab manual in the USC Bookstore.

Bring with you to lab (starting with check-in):
- Goggles, Visorgogs or Uvex safety glasses with side-shields (purchase at USC Bookstore)
- 100% Cotton Lab Coat (purchase at USC Bookstore)
- Laboratory Notebook (purchase at USC Bookstore)
- Laboratory Manual (purchase at USC Bookstore)

GRADING

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>One-Hour Exams</td>
<td>4 @ 100 points</td>
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<tr>
<td>Laboratory</td>
<td>250 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>1 @ 200 points</td>
</tr>
<tr>
<td>Web Quizzes</td>
<td>10 @ 10 points</td>
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<tr>
<td>Clickers</td>
<td>20 points</td>
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<td><strong>Total:</strong></td>
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EXAMS THERE ARE NO MAKE-UP EXAMS IN THIS COURSE. There will be four one-hour exams given during the semester. The material covered on each exam will be announced in lecture. The exams will be given on Thursday at 3:30 p.m. in SGM 101. Bring your student ID, a calculator, and a pen to all exams. The one-hour time period will be strictly enforced. No one will be allowed to enter the exam room late or to leave early. An answer key for each exam will be posted on the web the day after the exam. Scanned graded exams will be returned to you via the website (Grades/Exams). There is no strict grading curve for this course. Sample exams will be posted in Grades/Exams before each exam.

An approximate letter grade will be assigned by the end of the seventh week to give you an idea of your status in the course. The letter grade you receive at mid-term is no guarantee of your final grade.

If you find a substantial grading error, please follow the procedure outlined at the end for regrading. Regrades can be submitted no later than 1 week after the exam date. The whole exam will be regraded.

FINAL EXAM A comprehensive two-hour final exam will be given on Thursday, December 7, 8:00 a.m. – 10:00 a.m. This is the only time the final exam may be taken. No early or makeup final will be given. Taking the final exam is mandatory to pass the course.

ABSENCES All unexcused absences from an exam or laboratory will result in a zero. Individuals with excused absences will be given special consideration at the end of the semester. Absences will be excused on the basis of official university policy. To secure an excused absence, bring verification to Prof. Jessica Parr prior to the absence, or in case of illness, immediately upon your return. All excuses will be verified.
TEACHING ASSISTANTS, SI & TUTORS
You are strongly encouraged to see any of the TAs during their office hours.

The College also runs a free Supplemental Instruction (SI) program. Your SI leader will give you the details. The University Learning Center (x0-0776) also provides free one-on-one tutoring.

Plagiarism — presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Section 11, Behavior Violating University Standards https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct. http://policy.usc.edu/scientific-misconduct.

ACADEMIC CONDUCT

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity http://equity.usc.edu or to the Department of Public Safety http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

SUPPORT SYSTEMS
A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

IMPORTANT DATES TO REMEMBER

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<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>August 21</td>
<td>Monday</td>
<td>First Day of Class</td>
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<tr>
<td>August 24</td>
<td>Thursday</td>
<td>Lab Orientation @ 3:30 pm in SGM 101</td>
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<tr>
<td>August 31</td>
<td>Thursday</td>
<td>Information Literacy Presentation @ 3:30 pm in SGM 101</td>
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<tr>
<td>September 4</td>
<td>Monday</td>
<td>No class (Labor Day)</td>
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<tr>
<td>September 8</td>
<td>Friday</td>
<td>Last Day to Drop without W and avoid tuition charges</td>
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<td>September 14</td>
<td>Thursday</td>
<td>Exam 1</td>
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<td>October 5</td>
<td>Thursday</td>
<td>Exam 2</td>
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<tr>
<td>October 6</td>
<td>Friday</td>
<td>Last Day to Drop without W, but still incur tuition charges</td>
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<td>October 26</td>
<td>Thursday</td>
<td>Exam 3</td>
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<tr>
<td>November 10</td>
<td>Friday</td>
<td>Last day to drop with “W”</td>
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<td>November 16</td>
<td>Thursday</td>
<td>Exam 4</td>
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<tr>
<td>November 22-26</td>
<td>Wednesday-Friday</td>
<td>No Class (Thanksgiving Break)</td>
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<tr>
<td>December 1</td>
<td>Friday</td>
<td>Last Day of Classes</td>
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<tr>
<td>December 7</td>
<td>Thursday</td>
<td>Final Exam @ 8 a.m. – 10 a.m.</td>
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Statement on Support Systems

The Office of Disability Services and Programs

See p. 2 of this syllabus.

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. http://www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. https://engemannshc.usc.edu/rsvp/

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: http://sarc.usc.edu/

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086 Works with faculty, staff, visitors, applicants, and students around issues of protected class. https://equity.usc.edu/

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. https://studentaffairs.usc.edu/bias-assessment-response-support/

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. https://studentaffairs.usc.edu/ssa/

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. https://diversity.usc.edu/

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, http://emergency.usc.edu

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime. Provides overall safety to USC community. http://dps.usc.edu
POLICY ON REGRADING OF EXAMS

When an exam is submitted for regrading the entire exam will be regraded. This may result in a lower score. Once an exam has been submitted, the regrade score is the one recorded.

Reasons for submitting an exam for regrading:

1. Addition error yielding incorrect total score.
2. Lack of inclusion of scores from one or more of the problems graded.
3. Correct answer(s) marked incorrect.

How to submit an exam for regrading consideration:

1. Obtain a cover sheet for your exam by downloading it from the Chem115a homepage in Grades/Exams.
2. Complete the cover sheet, stating clearly why you are submitting your paper for regrading considerations. Be sure to sign the form where indicated, acknowledging that you have not written on or altered the exam in any way. Your exam will not be regraded unless the cover sheet is signed.

   Important: Please do not jeopardize your integrity by being tempted to change an answer after your exam has been graded. We scan complete sets of exams before they are returned. If you submit an altered exam for regrading, you will receive an "F" for the entire course and you will be reported to the Office of Student Conduct for an academic integrity violation.

3. Give the exam with the cover sheet attached to Prof. Parr. Do not submit it to a T.A. The deadline for submitting your exam paper for regrading consideration is 5 p.m. one week from the day you took the exam.