Instructor: Dr. Kutty Pariyadath, Room: 300 Science Building
Phone: 641-3429; email: kuttyp@usca.edu
Office Hours: 2:00 - 3:00 PM, MWF; Other times by appointment.

REQUIRED MATERIALS:
PREPARING FOR YOUR ACS EXAM IN GENERAL CHEMISTRY: The Official Guide by Eubanks and Eubanks
ACHM 111 and 112 LAB MANUAL by USCA Chemistry Faculty; 2008 Edition
LAB NOTEBOOK: With carbonless copy
Calculator – TI-83 (if you have one) or any scientific calculator; Bring your calculator to each class since it will be used extensively throughout the semester.

PRE-REQUISITES: (strictly enforced)
1. Placement above, successful completion of, or concurrent registration in AMTH 111
2. Successful completion of at least one prior chemistry course either at the high school level (one year) or at the college level (one semester).

OTHER SKILLS NEEDED:
Ability to use the Internet, access emails, do homework assigned on Webassign, Access Blackboard.

COURSE OBJECTIVES:
The Primary objective of this course is to give you a sound introduction to the chemical principles that govern the behavior of chemical elements and their compounds. You will also be introduced to the methodology of chemistry including lab experiments and mathematical manipulations involved in the quantitative aspects of chemistry.

COURSE ADMINISTRATION:
During the semester we will meet 42 times, each lasting one hour and fifty minutes. We shall use these meetings to cover the fundamentals of chemistry using the first 13 chapters of your textbook and several experiments listed in your lab manual. At USCA, General Chemistry is taught using an integrated approach whereby the experience and information gained from conducting experiments in the lab are integrated into the lectures.

THE LAB:
Each lab activity should take about 20 minutes to an hour and each will be related to a topic covered in the lecture. You will work with a partner who will work with you for the entire semester (unless, of course, your partner drops the course or is absent on a given day). Both Room 315 and Room 319 will be used for lab experiments.
Since efficiency in the lab is essential to avoid wasting other people's time, you are asked to read and prepare for the lab before coming to class, and submit, at the beginning of the lecture, a one page summary of the day's experiment, including your version of the experiment’s objectives and procedure. These summaries will be written in your lab notebook and shall include other pertinent information such as date, your name, partner’s name, name of experiment, page number, etc.

You are to record all the experimental data in your lab notebook. Results of the experiments will be discussed in the lecture room and all the information related to your lab work should be written in the lab notebook. A completed lab report will include the data collected in the lab, any graph or table printed using the computer and all the calculation, results and discussion associated with the experiment. Lab reports will be graded for effort and completion.

HOMEWORK:
Problem solving is an integral part of learning the concepts in chemistry. Many sample problems end-of-the-chapter problems will be solved in class. Additional problems will be assigned using Webassign, a web-based technology for assigning, completing and grading homework. Each of you will sign up for homework using Webassign. In order to sign up you have to follow the procedure below:

1. On the internet explorer, type in www.webassign.net
2. Click on login which is in the left margin.
3. Click on 'I Have a Class Key'
4. Type [USCA]45638075 and follow the on-screen instructions
5. You have 12 days to pay (15.45$) for the use of webassign for homework for one semester.

I expect to assign a few homework problems after each lecture. Each homework assignment will have a starting date and time, usually after the lecture, and a deadline, usually before the next lecture. Since the homework will be based on the lecture material, you should be able to do them if you are up-to-date with your studies in the course. Obviously, the purpose of assigning the homework is to check your understanding of chemistry and, thereby, your grade. If you are able to successfully complete all the assigned work, including the homework assignments, correctly without external help, you should earn a good grade in the course.

Note that you may be offered more than one opportunity to solve some of the homework problems. I hope you will take advantage of these additional opportunities.

QUIZZES AND TESTS:
As always, quizzes and tests are part of the real world course work. There will be a quiz on almost every Friday. In addition, there will be three major tests and a final exam during the semester. Quizzes and tests will contain both multiple choice and non-multiple choice questions. The final exam will be the national test provided by the AMERICAN CHEMICAL SOCIETY and it is a multiple choice test. You can not earn a passing grade in this course without taking the final exam.

THE HONOR CODE:
All graded work is subject to the USCA ACADEMIC HONOR CODE. You should read the most current USCA Student Manual to learn more about the USCA CODE OF ACADEMIC CONDUCT which will be strictly enforced on all graded work (Please see the USCA Student Handbook for 2008-2009 for details).

THE TOLEDO EXAM:
The Toledo Exam (a diagnostic test intended to discover your knowledge of math, physical science and chemistry relevant to this course) will be administered on the second class day. While this test will not count toward your overall grade, very poor performance in the Toledo Exam may suggest that you should take another introductory course in chemistry before attempting ACHM 111.

ATTENDANCE POLICY AND CLASSROOM BEHAVIOR:
I will take attendance on every class day. The Department of Chemistry has adopted the following attendance policy for all of its 100-level courses:
  • Students are allowed a maximum of seven absences of which no more than four may be unexcused.
  • Missed assignments including tests due to excused absences may be made up at the discretion of the instructor. Generally, quizzes can not be made up after the day of the quiz. Test may be made up prior to returning the grades for that test.
  • More than 4 unexcused or 7 total absences will result in the loss of one letter grade from the final grade calculated based on percentage of total points earned.
  • Absences totaling more than 25% of meetings (in this case 11 or more absences) will result in the grade F.

CLASSROOM BEHAVIOR AND CELL PHONE POLICY:
  • Please respect others' right to listen and learn. If you disturb the class by talking or any other way while I am lecturing, you may be asked to leave. Pl
  • You must put away all unauthorized materials during quizzes/tests. Violations will result in a zero for the test.
  • You must turn off your cell phone and put it away in your book sack or purse while you are in my classroom. If your phone rings and you choose to answer it, I may ask you to leave my classroom. If you expect an emergency call, you must let me know at the beginning of class and leave the phone at my desk.

TENTATIVE GRADING SCHEME
Homework = 40
10 Quizzes @ 15 = 150
Three Major Exams @ 120 = 360
Final Exam = 150
Labs 17-19@5 (1+4) = 85-95
Total = 785-795
≥ 90% = A;  ≥ 85% = B+; ≥ 80% = B; ≥ 75% = C+
≥ 70% = C; ≥ 65% = D+; ≥ 60% = D ; < 60 = F

EARNING THE GRADE IN THIS COURSE:
Grades are earned by the student and not given by the professor. Grades are NOT earned by just paying the tuition or by just showing up for each class. By admitting you into the university and by allowing you to register for ACHM 111, the faculty at USCA have given you the opportunity to learn chemistry, and through this learning, to earn the grade that you desire through your own efforts.

The only way the instructor will know that you have learned (or studied and understood) the topics covered in the course is through your performance in tests, quizzes, and other assignments.

The understanding of the material in a topic is not necessarily proportional to the number of hours you spend on the topic. No one else can tell you how long it will take for you to understand and learn any particular topic.

Here is how you may earn the grade that you seek:

You must first set short term and long term goals and then proceed to accomplish these goals by committing the time and energy needed to do so. You have to be aggressive in seeking help as soon as you need it. In my course, since I am in the best position to understand your difficulties and help you, you should see me before you seek help from any other person.

One approach is to read the section to be covered in class ahead of time, take notes in class (or tape the lecture), study the material covered on the same day if possible, using sample exercises from the textbook if needed, and, when you feel you have understood the subject, answer all of assigned questions/problems. Here is the real trick. these assigned problems should be used as a test of your understanding of chemistry, and not as a chore that you are obligated to fulfill.

Disability Statement

If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.
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<thead>
<tr>
<th>Date</th>
<th>Chapter</th>
<th>Lab</th>
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<th>Chapter</th>
<th>Lab</th>
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<tbody>
<tr>
<td>8/22 F</td>
<td>Review Syllabus; Ch. 1</td>
<td></td>
<td>10/15 W</td>
<td>Ch. 6</td>
<td>Hess’ Law (lab first)</td>
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<tr>
<td>8/25 M</td>
<td><strong>Toledo Exam, Ch. 1</strong></td>
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<td>10/17 F</td>
<td><strong>Quiz 7; Ch. 6</strong></td>
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<tr>
<td>8/27 W</td>
<td>Lab exercise only</td>
<td>Practice Lab: Conductivity w/ CBL</td>
<td>10/20 M</td>
<td>Ch. 6</td>
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<td>8/29 F</td>
<td><strong>Quiz 1; Ch. 1</strong></td>
<td></td>
<td>10/22 W</td>
<td>Ch. 7</td>
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<tr>
<td>9/03 W</td>
<td>Ch. 2</td>
<td>Weighted Averages</td>
<td>10/24 F</td>
<td><strong>Quiz 8;</strong></td>
<td>Finish Ch. 7, review, start Ch. 8</td>
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<td>9/05 F</td>
<td><strong>Quiz 2; Ch. 2</strong></td>
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<td>10/27 M</td>
<td><strong>Exam 2</strong></td>
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<td>9/08 M</td>
<td>Finish Ch. 2, start Ch. 3</td>
<td>Elements and Compounds</td>
<td>10/31 F</td>
<td><strong>Quiz 9;</strong></td>
<td>Finish Ch. 8, start Ch. 9</td>
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<td>9/10 W</td>
<td>Ch. 3</td>
<td>Reaction Stoichiometry</td>
<td>11/03 M</td>
<td>Ch. 9</td>
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<td>9/12 F</td>
<td><strong>Quiz 3; Ch. 3</strong></td>
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<td>11/05 W</td>
<td>Ch. 9</td>
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<tr>
<td>9/15 M</td>
<td>Ch. 3</td>
<td>Solution of Known Concentration and Dilution</td>
<td>11/07 F</td>
<td><strong>Quiz 10;</strong></td>
<td>Ch. 10</td>
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<tr>
<td>9/17 W</td>
<td>Ch. 3</td>
<td>Electrolytes</td>
<td>11/10 M</td>
<td>Ch. 10</td>
<td>Building Molecular Models</td>
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<td>9/19 F</td>
<td><strong>Quiz 4; Finish Ch. 3, Ch. 4</strong></td>
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<td>11/12 W</td>
<td>Ch. 10</td>
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<td>9/22 M</td>
<td>Ch. 4</td>
<td>Acid-Base Titrations</td>
<td>11/14 F</td>
<td><strong>Quiz 11;</strong></td>
<td>Finish Ch. 10, start Ch. 11</td>
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<td>Ch. 4</td>
<td>Precipitation Reactions;</td>
<td>11/17 M</td>
<td>Ch. 11</td>
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<td>9/26 F</td>
<td><strong>Quiz 5; Ch. 4</strong></td>
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<td>11/19 W</td>
<td>Start Ch. 12, review</td>
<td>Evaporation and Intermolecular Forces</td>
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<td>9/29 M</td>
<td><strong>Exam 1</strong></td>
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<td>11/21 F</td>
<td><strong>Exam 3</strong></td>
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<td>Ch. 5</td>
<td>Gas Law Lab</td>
<td>11/24 M</td>
<td>Ch. 12</td>
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<td>10/3 F</td>
<td>Ch. 5</td>
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<td>12/01 M</td>
<td>Ch. 12</td>
<td>Heat of Fusion of Ice</td>
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<td>10/6 M</td>
<td>Ch. 5</td>
<td>Gas Stoichiometry (lab first)</td>
<td>12/03 W</td>
<td>Finish Ch. 12</td>
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<td>10/8 W</td>
<td><strong>Quiz 6; Ch. 6</strong></td>
<td></td>
<td>12/05 F</td>
<td><strong>Quiz 12;</strong></td>
<td>Intro Ch. 13, Review for Final Exam</td>
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<tr>
<td>10/13 M</td>
<td>Ch. 6</td>
<td>Specific Heat of Metals</td>
<td>12/08</td>
<td><strong>Final Exam</strong></td>
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