Welcome to Chemistry 1212!

Chemistry encompasses a wide array of phenomena. Photosynthesis, combustion of fuels, and reactions in the atmosphere are a few examples. Interestingly, the human body may be considered a laboratory with a large number of reactions in progress simultaneously. Fortunately, diverse chemical phenomena are systematically studied using the concepts of structure, energetics, kinetics and equilibria. These concepts are a central theme in Chemistry 1212.

Four words summarize a tried and tested strategy for learning the most in this course. Take your homework seriously. Homework assignments will be given regularly during the semester. Approximately 60% of questions on the examinations will closely resemble these assignments. As a student, I always found it useful to supplement lectures with informal study sessions with my peers. You will be pleasantly surprised to find that a fellow student can clarify a concept or provide cute short-cuts while solving problems.

**General Information**

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<thead>
<tr>
<th>Instructor</th>
<th>Farooq A. Khan</th>
<th>Phone (678) 839 - 6027</th>
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<tbody>
<tr>
<td>Office</td>
<td>2-117 TLC</td>
<td>email: <a href="mailto:fkhan@westga.edu">fkhan@westga.edu</a></td>
</tr>
<tr>
<td><strong>Class time</strong></td>
<td>Mondays, Wednesdays, Fridays, 12:00 – 1:50 pm; Workshops (variable times) ARE MANDATORY</td>
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<tr>
<td><strong>Textbook</strong></td>
<td>Chemistry: Structure and Properties, Tro 2nd Edition (must include Registration Code for Mastering Chemistry)</td>
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<td><strong>Office Hours</strong></td>
<td>Mondays 10:00 – 11:45 am; 2:00 – 4:30 pm</td>
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<td>Wednesdays 2:00 – 4:30 pm</td>
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<td>Fridays 3:00 – 4:30 pm</td>
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<td>Additional office hours can be arranged by appointment.</td>
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**Attendance**

Attendance is required. If a student misses four or more classes, he or she may be awarded a grade of F for the course.
Learning Outcomes
Students are expected to acquire a basic understanding of the following topics: intermolecular forces, solutions, kinetics, equilibria, thermodynamics and electrochemistry. They are also expected to acquire an awareness of the role of Chemistry in everyday life. Students will also learn to apply the scientific method in laboratory activities, collect and analyze scientific data and formulate appropriate conclusions from data analyses and communicate their findings.

Examinations
In class examinations will be given on the following Fridays
June 15          June 29          July 13

The final examination will be given on Tuesday, July 24 during 10:00 am – 12:00 noon. It is based on all the topics covered during the entire year in CHEM 1211 and CHEM 1212. It consists of multiple-choice questions, and is prepared by the American Chemical Society. Please refer to the ACS Study Guide for General Chemistry.

No make up examinations will be given. In case of an illness or a dire emergency, a student may be excused from one in class examination, provided the instructor is contacted prior to the examination. If excused, the score for this examination will be the average of all in class examinations.

Homework
Mandatory homework assignments will be given online and counted towards your homework grade. Please go to the site: http://www.pearsonmylabandmastering.com. The course ID is khan44385.

In-class Group Work (Problem Solving)
In-class problem solving will be done on all class days (except during examinations) in small groups. Absence will automatically result in a grade of zero for that day.
Workshop Chemistry

Workshops are an important part of CHEM 1212. In workshops, the large class is broken down into smaller groups. In addition to lectures and co-requisite laboratories, you must attend a workshop that meets twice a week outside of class to discuss chemistry problems and improve your understanding of the material.

Workshops are something like study groups, with two prominent differences.

1. Each week’s workshop will go over a set of assigned questions. There will be a workbook available which contains material for each workshop, week by week.

2. Each workshop will be led by a student leader who has had the course previously and who has been trained for undertaking this responsibility. The leader will act more as a facilitator than as a tutor. The purpose of workshops is to build confidence in your own ability to do chemistry problem-solving. Each workshop will be scheduled for a 90-minute block of time. Although some workshops will not last the whole 90 minutes, you should plan on putting this amount of time into each workshop.

Why should you want to commit to 180 extra minutes spent on chemistry each week in addition to your time in class? Here are some good reasons.

- You should plan, on average, to spend at least six hours a week outside of lecture and lab studying chemistry.

- Working with other students and with a leader can be more productive than doing all your studying alone. In the structured workshop setting other students can help you see something you missed and as you explain an idea to someone else it becomes more clear in your own mind. Workshops at other institutions have found that students participating average significantly better on chemistry tests than those not attending workshops.

- **It directly affects your grade.** The workshop portion of your grade will be based on:
  1. Attendance. Don’t arrive late; don’t leave early.
  2. Participation in group efforts to solve problems.
  3. Preparation. Practice problems should have been solved, or at least attempted, before the relevant workshop.
4. Attitude. This style of grading is very unique. Please keep in mind that you are not judged on actual right answers, but the effort you put forth.

Grades

Your grade will be calculated based on the following components:

- **In-class examinations** (3 @ 100 points each) 300 points
- ACS Final 140 points
- Workshops 100 points
- In-class Group Work (problem solving; 5 points each class day) 90 points
- Online Homework on Pearson 70 points

**TOTAL** 700 points

Letter grades

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<tr>
<th>Score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
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<tr>
<td>80% - 89%</td>
<td>B</td>
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<tr>
<td>65% - 79%</td>
<td>C</td>
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<tr>
<td>55% - 64%</td>
<td>D</td>
</tr>
<tr>
<td>0% - 54%</td>
<td>F</td>
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Policy on cheating

Occurrences of cheating are rare. However, cheating by one individual raises questions about fairness for the rest of the class, and indeed, endangers the honor code that governs our examination system. It is after considerable thought and agonizing that I have arrived at the following formula. If an individual cheats on an examination for the first time, he/she will obtain a score of zero for that particular examination. If an individual is caught cheating a second time during the semester, he/she will receive a grade of F for the entire course.