CHEMISTRY 1411 - GENERAL CHEMISTRY I

SPRING 2014

Day & Time:  Friday: 8:30am - 11:30am and 12:00pm – 3:00pm
Location:  Alief Building, room B225
Class number:  78073

Instructor
Yokabet Gedeon, M.S., Ph.D.
E-mail: Yokabet.Gedeon@hccs.edu

Textbooks

Course Description
General Chemistry I (Chemistry 1411) is a core curriculum course. It is designed to impart a basic knowledge of physical science to students. It is a prerequisite to Chemistry 1412 (General Chemistry II) and Chemistry 2423 (Organic Chemistry I). The credit for this course is 4 semester hours.

Course Objectives
This course will introduce the modern concept of atomic structure, chemical reactions, thermodynamics, electron configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. Successful completion of this course will help students understand basic chemical principles.

Prerequisites
Students should have the following prerequisites
- One year of high school chemistry or Chemistry 1405
- College algebra or Math 1314
- College reading and math skills (TASP requirements should be completed)

Note: As stated in the HCCS catalog, lack of satisfactory completion of the course prerequisites is one of the main reasons that cause students to do poorly in chemistry.
Therefore, students must complete the prerequisites satisfactorily before enrolling in Chemistry 1411.

**Attendance**

- Regular attendance is required. Students are expected to attend the entire class, i.e. lecture and laboratory portions, regularly. Class attendance is checked every session.

- It is the responsibility of each student to amend his or her professional/personal schedule to meet the class schedule. If the student is going to be absent for any reason, he or she should arrange to get the notes and information from a fellow classmate. Students are responsible for completing assignments scheduled during their absences.

- As stated in the Fall 2010-2014 Student Handbook, a student may be dropped from the course if the student’s accumulated absences are in excess of 12.5% of the hours of instruction. Therefore if a student is absent more than three times, he/she can be dropped from the class. The instructor has the full authority to drop a student for excessive absences; however, it is the responsibility of the student to drop a course. **If a student just stops coming to the class and does not drop the course, he/she will get an “FX” in the class.**

- **Tardiness:** Students are expected to be on time for each session. If a student is frequently late for the class, he or she may be marked absent for the many sessions he or she has been late. Tardiness will be marked in the attendance record.

- **Email inquiry:** Questions via email will be answered within 48 to 72 hours or in the next class meeting.

**HCC Course Withdrawal Policy**

- The State of Texas imposes penalties on students who drop courses excessively. Students who repeat a course three or more times face significant tuition/fee increases at HCC and other Texas public colleges and universities. In 2007, the Texas Legislature passed Senate Bill 1231, a law limiting students to no more than six total course withdrawals throughout their academic career in obtaining a baccalaureate degree.

- **Last Day for Administrative/Student Withdrawals:** The last day for student withdrawal is **March 31 at 4:30pm.**

- Students must visit with a faculty advisor, a counselor or Online Student Services prior to withdrawing.
• Students are encouraged to ask their counselors/HCC Online Student Services about opportunities for assistance - tutoring, childcare, financial aid, job placement, etc.

• **International Students:** Receiving a W in a course may affect the status of a student visa. Once a W is given for the course, it will not be changed to an F because of visa consideration. International students should contact the International Student Office at 713-718-8521 if they have any questions about their visa status and other transfer issues.

**Disability Support Services**
The Houston Community College System is in compliance with the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973 (section 504). If any student has any disabilities or special needs that may affect his/her success in this course, the student needs to contact the Office of Disability Support Services in the college. The counselor will determine the reasonable accommodation or modification, upon reviewing the student’s documents. The instructor is authorized to provide **only** the accommodations requested by the Disability Support Services Office. For more information, students may contact Dr. LaRonda Ashford at 713-718-5408 or Ms. Lisa Parkinson at 713-718-5667

**Course Grading Policy**

• **Lecture Grade**
  There will be three (3) regular lecture exams, three (3) bonus quizzes and one (1) final lecture exam. The exams will be over the materials covered in class. Students have one hour and half to complete each lecture exam and ten to fifteen minutes to complete each bonus quiz. The final exam is **comprehensive** and **departmental**. Students have two hours to complete the final exam. There will be no breaks during any of the exams or quizzes and, if any student leaves the room for any reason, that student should turn in his/her exam/quiz. The student will not be allowed to continue taking that exam. Each homework assignment will count as one (1) added bonus point toward the final exam grade.

• **Laboratory Grade**
  There will be laboratory experiments, reports and assignments (including one major case study). Students need to submit a lab report for every experiment performed in the lab the following lab period. Late lab reports will be penalized. Each experiment will be graded based on (1). Lab attendance and performance, (2). In-Lab report, and (3). Pre- and Post-lab review exercises.

  Students are expected to comply with all the laboratory rules and safety instructions. **Safety glasses or goggles must be worn at all times during the laboratory experiment period.** Any student **not** wearing glasses or goggles after the experiment has begun may be given a **zero** for that experiment!
• **Make-up Policy**
  There will be **no** make-up for any lecture examination/laboratory experiment. Failure to take a lecture exam or perform a lab experiment will result in a zero (0) for the missed exam/experiment. **It is mandatory to take the final exam**, and no student can be exempted. **A student who completes the course by taking the final exam cannot receive a “W” in the course.**

• **Grade determination**
  - There will be three (3) lecture exams worth 100 points each.
  - There will be three (3) quizzes worth 10 or more added bonus points each.
  - The lab experiments, reports and assignments are worth 150 points.
  - The final exam will be worth 150 points.
  - If the final exam grade is greater than the lowest lecture exam grade, the final exam grade will replace the lowest exam grade in computing the overall grade.
  - Total points to be earned in this class = 600 points

Points earned by the student

\[
\text{The overall score} = \frac{\text{Points earned by the student}}{\text{Total points}} \times 100
\]

The **overall score** is based on the following:

- Three lecture exams \(50\%\)
- Laboratory \(25\%\)
- Final exam \(25\%\)

The **course grade** is then obtained from the overall score:

- **A** = 90-100 %
- **B** = 80-89 %
- **C** = 70-79 %
- **D** = 60-69 %
- **F** = 0 -59 %

**Academic Honesty**

Students are expected to comply with policies stated in the Houston Community College System Student Handbook concerning academic honesty. Disciplinary proceedings and penalties may be initiated by the college system against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. Penalties can include failure in the course, academic probation, or even expulsion from Houston Community College.
**Classroom Policy**

- **Cell phones**
  The use of cell phones during class lecture or exam administration is not allowed. All cellular phones brought to class must either be “muted” or off during lecture and laboratory sessions.

- **Breaks**
  Eating, drinking, side talking, sleeping and joking are not permitted during the lecture. There will be a 15-minute break during each session.

**Tutorial Services**
Free tutoring is available to HCC students based on the schedule posted on:

- **Find-a-Tutor** – A searchable database that allows students to find current information about all on-campus tutoring in every discipline. Students can search the Find-a-Tutor database by college, subject, or both to find out what is offered, where, what time, whether it is walk-in or requires an appointment, and any other relevant information [http://imc06.hccs.edu/alltutoring/FMPro?-db=alltutoring.fp5&-lay=info&-format=search.htm&-view](http://imc06.hccs.edu/alltutoring/FMPro?-db=alltutoring.fp5&-lay=info&-format=search.htm&-view)

- **AskOnline Online Tutoring** – Students can access online tutors 24/7/365. Upload questions and/or papers and get a response to download within 24 hours. A five-minute video on the log-in page -- [www.hccs.askonline.net](http://www.hccs.askonline.net) -- explains how the system works. Students need to use their HCC student ID number (w+) as their User ID and their birth date (mm/dd/yyyy) as their initial password.
## Course Schedule

The following is a tentative class schedule for the **lecture** and **laboratory** sessions and exam dates.

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Laboratory</th>
<th>Examination Schedule</th>
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</thead>
<tbody>
<tr>
<td>1/12</td>
<td>Chap. 1: Introduction/Rules and Regulations/ Chemistry: The Study of Change</td>
<td>Lab Safety Rules and Regulations/ Lab Safety Video</td>
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<tr>
<td>1/19</td>
<td>Chap. 1: Introduction/Rules and Regulations/ Chemistry: The Study of Change</td>
<td>Experiment 1: Basic Laboratory Techniques</td>
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<tr>
<td>1/26</td>
<td>Chap. 2: Atoms, Molecules, and Ions</td>
<td>Experiment 2/3: Separation of the Components of a Mixture</td>
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<tr>
<td>2/2</td>
<td>Chap. 3: Mass Relationships in Chemical Reactions Chap. 4: Reactions in Aqueous Solutions</td>
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<td>Quiz #1</td>
</tr>
<tr>
<td>2/9</td>
<td>Chap. 4: Reactions in Aqueous Solutions Chap. 5: Gases</td>
<td>Experiment 4: Identification of Substances by physical properties</td>
<td>Exam #1</td>
</tr>
<tr>
<td>2/16</td>
<td>Chap. 5: Gases Chap. 6: Thermochemistry</td>
<td>Experiment 6: Formula and Composition of a Hydrate</td>
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<tr>
<td>2/23</td>
<td>Chap. 6: Thermochemistry Chap. 7: Quantum Theory and the Electronic Structure of Atoms</td>
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<tr>
<td>3/2</td>
<td>Chap. 7: Quantum Theory and the Electronic Structure of Atoms</td>
<td>Experiment 8: Reactions in Aqueous Solutions</td>
<td>Quiz #2</td>
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<tr>
<td>3/9</td>
<td>Spring Break</td>
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<tr>
<td>3/16</td>
<td>Chap. 8: Periodic Relationships Among the Elements</td>
<td></td>
<td>Exam #2</td>
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<tr>
<td>3/23</td>
<td>Chap. 8: Periodic Relationships Among the Elements</td>
<td>Experiment 9: Reactivity of Metals – Activity Series</td>
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<tr>
<td>3/30</td>
<td>Chap. 9: Chemical Bonding I: Basic Concepts</td>
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<tr>
<td>3/31</td>
<td>Chap. 9: Chemical Bonding I: Basic Concepts</td>
<td></td>
<td>Last Day for Student Withdrawals – 4:30 p.m.</td>
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<tr>
<td>4/6</td>
<td>Chap. 9: Chemical Bonding I: Basic Concepts</td>
<td>Experiment 11*: Heat of Neutralization</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Activity</td>
<td>Notes</td>
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<tr>
<td>4/18</td>
<td>Spring Holiday</td>
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<tr>
<td>4/27</td>
<td>Chap. 11: Intermolecular Forces and Liquids and Solids</td>
<td>Experiment 14*: The VSEPR Theory of Molecular Geometry</td>
<td>Exam #3</td>
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<tr>
<td>5/7</td>
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<td></td>
<td>Final Exam</td>
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</tbody>
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Disclaimer: Please note that this is a tentative schedule. The instructor reserves the right to change anything in the syllabus at any time as deemed necessary and appropriate.