GENERAL CHEMISTRY

Class Meetings

Classes begin on Monday, August 16 and end on Friday, December 3, 2004. Holidays are Monday September 6, Thursday November 25 and Friday November 26. Fall recess is Monday October 18 and Tuesday October 19, 2004.

**Lectures:** Monday, Wednesday, and Friday, 2:05 to 2:55 PM or 3:05-3:55 PM

**Recitations**

Section G: Recitation: Wednesday 4-5 PM, Lab: Wednesday 7-10 PM

Section H: Recitation: Wednesday 5-6 PM, Lab: Thursday 7-10 PM

Section N: Recitation: Thursday 1-2 PM, Lab: Wednesday 12-3 PM

Section O: Recitation: Thursday 2-3 PM, Lab: Friday 12-3 PM

*First recitation meeting is the week of August 23 in either CoC 52 or CoC 53 (Chem Annex) or Boggs 339-N or 339-S.*

*First Lab meeting is the week of August 23 in Chem Annex 18, 19, 21 or 30.*

Lab check-in will take place at that time.

Instructors

Dr. Robert M. Dickson (8/16-10/8), Dr. Robert L. Whetten (10/11-12/13)

**Offices:** Dickson: B-18 Boggs, Whetten: L1-242 ES&T

**e-mail:** dickson@chemistry.gatech.edu, whetten@chemistry.gatech.edu

**Office Hours (Dickson):** MW 4:05 to 4:55 PM in Boggs B-18 or by appointment.

**Office Hours (Whetten):** TBA

Teaching Assistants

<table>
<thead>
<tr>
<th>SECTION</th>
<th>NAME</th>
<th>LAB TIME</th>
<th>LOCATION</th>
<th>RECITATION</th>
<th>LOCATION</th>
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</thead>
<tbody>
<tr>
<td>N1, O1</td>
<td>McCook</td>
<td>W, F 12-3PM</td>
<td>CHEM ANNEX 18</td>
<td>R 1-2, R 2-3</td>
<td>CHEM ANNEX 52</td>
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<tr>
<td>N2, O2</td>
<td>Tucker</td>
<td>W, F 12-3PM</td>
<td>CHEM ANNEX 21</td>
<td>R 1-2, R 2-3</td>
<td>CHEM ANNEX 53</td>
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<td>N3, O3</td>
<td>Do</td>
<td>W, F 12-3PM</td>
<td>CHEM ANNEX 19</td>
<td>R 1-2, R 2-3</td>
<td>BOGGS 339N</td>
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<td>N4, O4</td>
<td>Olanrewaju</td>
<td>W, F 12-3PM</td>
<td>CHEM ANNEX 30</td>
<td>R 1-2, R 2-3</td>
<td>BOGGS 339S</td>
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<td>G1, H1</td>
<td>Yin</td>
<td>W, R 7-10PM</td>
<td>CHEM ANNEX 18</td>
<td>W 4-5, W 5-6</td>
<td>CHEM ANNEX 52</td>
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<tr>
<td>G2, H2</td>
<td>Nicovich</td>
<td>W, R 7-10PM</td>
<td>CHEM ANNEX 21</td>
<td>W 4-5, W 5-6</td>
<td>CHEM ANNEX 53</td>
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<tr>
<td>G3, H3</td>
<td>Kraemer</td>
<td>W, R 7-10PM</td>
<td>CHEM ANNEX 19</td>
<td>W 4-5, W 5-6</td>
<td>BOGGS 339N</td>
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<tr>
<td>G4, H4</td>
<td>Tabor</td>
<td>W, R 7-10PM</td>
<td>CHEM ANNEX 30</td>
<td>W 4-5, W 5-6</td>
<td>BOGGS 339S</td>
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**Required Course Materials**

**Lecture Text:** *Chemistry: Science of Change, 4th Ed.*, by Oxtoby, Freeman, & Block.

**Lab Text:** Customized Manual *Laboratory Experiments for General Chemistry, 4th Ed.*, by Hunt, Block, & McKelvy

**Personal Response System (PRS) transmitter:** A Personal Response System (PRS) transmitter will be required for quizzes (graded) throughout the term. Attendance will also be taken and PRS credit given for attendance. The transmitter must be purchased from the GT Barnes and Noble Bookstore in the electronics section. You must register your unit number via the course website.

**Other Materials** (GT bookstore)

- **Student Solutions Manual:** by Donald J. Wink (*optional*), solved odd numbered problems at the end of each chapter in *Chemistry: Science of Change, 4th Ed.*, by Oxtoby, Freeman, & Block
- **Calculator** (+, -, *, /, ln, and log)
- **Key-controlled combination lock.** Locks can be purchased at the bookstore (must be "chemistry locks"). Used locks may be purchased (at a discount price) from the stockroom in the Chem Annex.
- **Safety glasses or goggles**
- **Lab Apron** (recommended)
- **NOTE:** You should maintain a balance of at least $30 on your BuzzCard so that you can pay for any fees you might incur in lab (breaking glassware, renting safety goggles, etc). Payment will be made at the Annex stockroom. **You will not be permitted to work in lab unless you are wearing safety glasses or goggles and closed shoes.**

**Course Description**

The course covers fundamental observations, laws, and theories of chemistry at the introductory level. Topics include atoms/molecules, stoichiometry, acids/bases, solutions, equilibria, gases, solids, liquids, thermodynamics, electrochemistry, kinetics, quantum theory, the periodic table, and chemical bonding.

**Grading Policies**

**Attendance:** Attendance is expected in lecture, required in laboratory and highly beneficial in recitation. PRS credit will be given for lecture attendance. Unannounced quizzes may also be given in lectures and PRS credit assigned for correct and incorrect answers.

8/18/2004
Recitation: The weekly recitation section is meant to give students a chance to ask questions and see sample problems worked. Each recitation section will be directed by a teaching assistant (TA).

Exams: Three closed-book exams will be given during the semester. The exam dates are Friday, September 17, Friday, October 15, and Monday, November 22. Please see the course schedule for more details on Exam content. Material on exams may be taken from assigned reading, homework, lecture material, or problems similar to those at the end of each chapter in the course text.

Final Exam: A three-hour final exam will be given at the time and place determined for this course by standard Georgia Tech procedures. The final exam for the MWF 2:05 PM section of this course is scheduled for Friday, December 10 at 11:30 AM to 2:20 PM in Room 16 CHEM Annex. The final exam for the MWF 3:05 PM section of this course is scheduled for Wednesday, December 8 at 11:30 AM to 2:20 PM in Room 16 CHEM Annex.

Homework: Homework problems will be assigned weekly, largely on WebCT and will be automatically graded. Many exam questions will be analogous to assigned homework problems, so working homework problems is an essential part of exam preparation. Assigned homework problems are taken from the textbook. It is OK for students to collaborate on homework, but each student should turn in their own homework. Homework will be discussed each week during recitation.

Laboratory Grade: You must pass Laboratory to pass the overall course. Teaching Assistants will have the responsibility for establishing laboratory grades. Students are graded on pre-lab quizzes, formal lab reports, summary reports, report accuracy, lab technique and attitude, and a final lab practicum exam. A grade of 70% or better in the lab is considered passing. Grades in the 60-69% range may be considered under unusual and exceptional circumstance. Below 65% the extenuating circumstances must be documented. Under no circumstances will lower laboratory grades be considered. Your teaching assistant may specify that students work in pairs or in larger groups for certain experiments. Whether this is the case or not, all reports must be prepared independently by each student.

Grade Changes: Re-grades of hour exams must be requested within one week of the date that the graded exams are returned to students. Only re-grades that could add four or more points to the score will be considered.

Make-up Exams: There will be no make-up exams. If a student has a valid excuse for
missing an exam, his/her grade for that exam will be calculated from his/her performance on that part of the final exam that covers topics from the missed exam.

**Honor Code:** Students are expected to adhere to the Georgia Tech honor code during all aspects of this course (see [http://www.honor.gatech.edu/](http://www.honor.gatech.edu/) for details).

**The basis for course grades will be as follows:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>PRS Quizzes (unannounced) and Attendance</td>
<td>5%</td>
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<tr>
<td>Hour Exam 1</td>
<td>10%</td>
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<tr>
<td>Hour Exam 2</td>
<td>15%</td>
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<tr>
<td>Hour Exam 3</td>
<td>15%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Laboratory</td>
<td>20%</td>
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**Course Webpage**

Information of interest to students will be posted on the course webpage:

[http://www.chemistry.gatech.edu/class/1310/dickson/](http://www.chemistry.gatech.edu/class/1310/dickson/)

Students should consult the webpage at frequent intervals throughout the semester. The user name and password will be provided to students registered in the course.