1. **Schedule**

All 8:00 a.m. sections of Chemistry 1040 meet together MWF 8:00 – 8:55 a.m. in Zimmer Auditorium. Each section has its own recitation on ONE of the days MTWR – see your individual schedule for the location and time for the recitation for your section.

Instructor: Dr. Daniel Waddell  
Email/Phone: waddeldl@ucmail.uc.edu, (513) 556-5840  
Office Hours: 508 Rievschl  
Monday, Wednesday, Friday – 9:00 – 10:30 a.m.  
Thursday – 9:30 – 11:00 a.m.  
- If these times do not work, you can always stop by if the door is open or send me an email to make an appointment.

Important note: Chemistry 1040 is ONLY the lecture and recitation course. The accompanying laboratory is a separate course, Chemistry 1040L. If your major requires you to take both the lecture and the lab, you must register for both courses individually.

**Tips for Success in this Course**
1. Attend all lectures and recitation sections  
2. Complete all assignments to the best of your ability – do not wait until just before the due date and rush to finish – work through as many practice problems as possible!  
3. In addition to assigned work – complete as many practice problems from the book as time allows.  
4. Keep up to date with the material and ask questions as soon as they arise  
5. The SIs, TAs, LAs and I all want you to succeed in this course! Please ask for help before the exams and before you get too far behind. It is too late to change a grade after an assignment or exam has taken place.  
6. Chemistry doesn’t have to be boring – study with friends – make it a chemistry party!

**My expectations**
I will be honest with you and treat you with respect. I expect the same from you towards me and your fellow classmates.

2. **Required Course Material**

The bookstore company’s new-ish includED program is being used in General Chemistry this year. The required materials are automatically purchased and paid for through your tuition and fees payment for this course. This includes electronic access (ONLY) to the textbook, Silberberg and Amateis, "Chemistry, The Molecular Nature of Matter and Change", 7th ed., and access to the McGraw-Hill website for various online homework exercises, etc. A printed copy of the text is not required. (An inexpensive, loose-leaf, black and white printing of the text is available in the Campus Bookstore for those individuals who wish to have a paper copy in addition to the electronic access.) ALL ACCESS TO THE ELECTRONIC MATERIALS WILL BE THROUGH BLACKBOARD.

A simple, non-programmable scientific **calculator** is REQUIRED. See Item 10.

Substantial use will be made throughout the semester of **electronic collection of in-class responses to questions**. You will need a ResponseCard RF “clicker” device from Turning Technologies. Clickers are available in the bookstore and on the company's website (https://store.turningtechnologies.com/ – when asked for a school code, enter Jg@8 ). You will likely need this device in more than one of your courses – you only need one “clicker”.

As of: 8/20/2015
3. **Learning Outcomes**

By the end of the semester, each student should, at a minimum, be able to:

1. Use appropriate significant figures.
2. Relate the chemistry learned to applications and problems in society.
3. Determine empirical and molecular formulas of compounds.
4. Balance chemical equations and use stoichiometry to calculate product and reactant amounts.
5. Identify different types of reactions (precipitation, acid-base, oxidation-reduction, etc.) and predict their outcome.
6. Predict the behavior of gases using the gas laws.
7. Describe the role of energy and enthalpy in reactions and perform thermochemical calculations.
8. Understand the basic concepts of quantum theory, determine the electron configurations of atoms, and use periodic trends to make predictions about atomic properties.
9. Describe the principles and understand the theories of chemical bonding and determine molecular geometries.
10. Understand the special nature of carbon, how it leads to the diversity in structure and reactivity of organic compounds, the properties of functional groups, and the importance of synthetic and natural polymers.
12. Effectively solve chemistry problems that require analytical and interpretative skills and use algebraic methods.

4. **Special Dates**

   Last Day to Drop with 100% refund: September 8
   Last Day to Withdraw: October 30

5. **Course Grades**

   Grading based on a weighted average – your grades will be posted on Blackboard:
   - Average of Attendance/clicker participation (3 “free” absences) – 5%
   - Average of Online Homework – 7%
   - Average of Recitation Scores (2 lowest scores dropped) – 10%
   - Exam 1 – 18%
   - Exam 2 – 20%
   - Exam 3 – 20%
   - Final Exam (Comprehensive ACS exam) – 20%

   The following scale will be used to determine your final grade:

   | 87–85% | 74–72% | 56-54% | 100–91% | 90–88% | 84–78% | 71–61% | 53–49% | 48-46% | 90–88% | 77–75% | 71–61% | 53–49% | <45% | A– |
   | B+ | C+ | D+ | A | B | C | D | F | A– |

   - No extra credit assignments will be given at the end of the course.
   - You final grade is **not** simply averaging all of the grades you see on Blackboard – grades are weighted differently as indicated above. If you are not sure about how to calculate a weighted final grade, there is a video tutorial in the “How-to videos” section on our Blackboard page.

6. **Absences**

   You get 3 “free” absences from lecture and 2 dropped scores for recitation. With this in mind, there will generally not be makeups. If you miss a recitation or lecture, including those for legitimate reasons, you will simply use one of your “free” misses. If there are unique circumstances which will cause you to miss a large number of classes and recitations please meet with me before your absences and we can discuss your individual circumstances.

As of: 8/20/2015
7. **Class Cancellation**

   In the event that the University officially cancels classes for any reason on a day with an exam scheduled, the exam will automatically be postponed until the next class meeting.

8. **Exams**

   Exams will be held during class periods and will be closed notes and closed book unless otherwise instructed. Exams will focus on material covered in class, on homework problems, recitation problems and material covered in the textbook. In this course, exams are the primary method of determining your ability to individually work through general chemistry concepts and problems. Be sure to use all of your other resources and assignments to prepare you to “show off” what you learned on exam day.

   **Exam Dates:** There will be three in-class exams scheduled for **September 25, 2015**, **October 23, 2015**, and **November 25, 2015**. The Final Exam will be a block final and the time and location will be announced later in the semester.

   **Make-up Exams**

   I do not mind giving make-up exams. However! You **ABSOLUTELY** must notify me prior to the start of the scheduled examination (or in a reasonable time frame if it is an extenuating circumstance – usually within one day) in case of an emergency or you will receive a grade of zero.

9. **Homework**

   Homework will be assigned as describe on Blackboard under “Homework Assignments” – this is done online through Connect. You will have one assignment due for each chapter we cover. Do not wait until the last minute to complete these assignments. Homework is meant to give you credit for working through the material and practicing – use the homework to your advantage. You may turn in your homework late for a small penalty for each day late. However, homework will not be accepted for any credit after the final exam has been taken.

10. **Calculators**

    A simple, non-programmable calculator is **REQUIRED** for use on all exams in Chem. 1040. Graphing calculators are not allowed. It must have logarithmic and exponential functions and allow the use of scientific notation. Sharing is not permitted, and no adjustment will be made on account of calculator malfunction (including dead batteries – a solar-powered model is strongly recommended). **Cell phone calculator apps may NOT be used on quizzes or exams.** Completely adequate calculators are readily available from many sources for under $10.

11. **Chemistry 1040 Recitation and TA Office Hours**

    You will meet with your TAs during recitation. Please come prepared to ask questions and work on a worksheet covering recent material. You should bring your book, calculator and any other resource you want. You will work through problems both individually and as groups. Your recitation grade will be based on your performance on the worksheet. Your lowest 2 recitation grades will be dropped. Recitations are **your** time! Prepare by looking over your notes and doing some practice problems so that you can get the most out of your recitation.

    The Chemistry 1040 TA Office is located in 508A Rieveschl. Teaching assistants will be available to help you learn to work problems and to answer questions during the times posted there. You may consult with any Chem. 1040 TA present, not just your own. You are also encouraged to make use of the computer facilities in the Else Schulz Information Commons in the Chemistry-Biology library. The Chemistry-Biology library is a great place to study and do homework.

    Because you receive two dropped recitation grades, there are **NO** makeups available for any reason (even valid excuses). If you so choose and know in advance of an unavoidable absence – you may contact one of the course TAs and ask if you may sit in during their recitation. Allowing you to attend a different section is only for extenuating circumstances and not guaranteed - you must clearly communicate with both your TA and the TA whose section you wish to attend.

    If you recitation happens to fall on a day that we have no classes (holidays, weather cancellations, etc.) – that recitation will simply not be counted towards your final grade. It will not count towards your two dropped scores.

As of: 8/20/2015
12. Academic Misconduct

In this course you are encouraged to study and prepare for worksheets, homework and examinations with other students. However, when taking exams, you are required to work alone. University regulations are explicit about academic misconduct and cheating, and these regulations will be fully enforced. Students engaging in such misconduct may be brought up on charges as outlined in the student code of conduct. See http://www.uc.edu/Code_of_Conduct.html.

CHEMISTRY 1040 – 8:00 a.m. LECTURE - TENTATIVE SCHEDULE

<table>
<thead>
<tr>
<th>Meeting</th>
<th>DATE</th>
<th>Material Covered</th>
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<tbody>
<tr>
<td>I</td>
<td>M 8/24</td>
<td>Intro</td>
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<tr>
<td>II</td>
<td>W 8/26</td>
<td>1.1 – 1.3</td>
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<td>III</td>
<td>F 8/28</td>
<td>1.4 – 1.5</td>
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<td>IV</td>
<td>M 8/31</td>
<td>2.1 – 2.3</td>
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<td>V</td>
<td>W 9/2</td>
<td>2.4 – 2.6</td>
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<td>VI</td>
<td>F 9/4</td>
<td>2.7 – 2.9</td>
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<tr>
<td>VII</td>
<td>M 9/7</td>
<td>Labor Day</td>
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<tr>
<td>VIII</td>
<td>W 9/9</td>
<td>3.1</td>
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<tr>
<td>IX</td>
<td>F 9/11</td>
<td>3.2 – 3.3</td>
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<tr>
<td>X</td>
<td>M 9/14</td>
<td>3.4</td>
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<td>XI</td>
<td>W 9/16</td>
<td>4.1</td>
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<tr>
<td>XII</td>
<td>F 9/18</td>
<td>4.2 – 4.3</td>
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<td>XIII</td>
<td>M 9/21</td>
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<td>XIV</td>
<td>W 9/23</td>
<td>Review</td>
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<td>F 9/25</td>
<td>Exam I (1-4.3)</td>
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<td>XV</td>
<td>M 9/28</td>
<td>4.5 – 4.7</td>
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<td>XVI</td>
<td>W 9/30</td>
<td>5.1 – 5.3</td>
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<td>XVII</td>
<td>F 10/2</td>
<td>5.3 – 5.4</td>
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<td>XVIII</td>
<td>M 10/5</td>
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<td>XX</td>
<td>F 10/9</td>
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<td>XXI</td>
<td>M 10/12</td>
<td>6.5 – 6.6</td>
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<tr>
<td>XXII</td>
<td>W 10/14</td>
<td>7.1 – 7.2</td>
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<tr>
<td>-</td>
<td>F 10/16</td>
<td>Reading Days</td>
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The final exam is an ACS standardized exam covering material from just this first semester of general chemistry. It is a comprehensive exam. It is a 70 question multiple choice test written by the American Chemical Society (similar to other nationally standardized exams). ACS publishes a review book that is specific for this exam – actually the review book covers topics from the entire year of general chemistry but our exam will only cover topics in the first semester. There are copies of this review book on reserve in the chemistry/biology library. If you wish – although it is not mandatory – you may also purchase the review book through ACS’s website:

http://chemexams.chem.iastate.edu/general-chemistry.

Special Note: The Department of Chemistry and the University of Cincinnati are not responsible for the personal belongings of students. Students are strongly encouraged not to bring items to class that are not required for that class.
Additional Course Resources:

In addition to your TA, SI, and LAs, the following resources are available to you. Please take advantage of these opportunities to help you succeed in the course!

- The Learning Assistance Center offers one-on-one tutoring for this course. Students may schedule individual tutoring appointments to improve their understanding of course materials and develop effective study strategies.

- The Math and Science Support (MASS) Center also provides study-table tutoring for this course. More information about the study tables can be found here: 
  [http://www.uc.edu/aess/lac/masscenter/studytables.html](http://www.uc.edu/aess/lac/masscenter/studytables.html)

- The LAC offers Academic Coaching. Academic Coaches are high achieving UC upperclassmen and graduate students who provide one-on-one support in order to encourage success-building practices and habits in students. Coaching is not course specific, but applicable to all majors and courses.

- The Academic Writing Center (AWC), located on the fourth floor of Langsam Library in room 401N, provides UC students with free writing assistance. If you would like a trained writing tutor to help you get started on your writing assignment or review your writing, make an appointment or stop in during our drop-in hours. The Writing Center is not course specific, but can help with some discipline-specific documents, as well as non-course-based assignments (resumes, scholarship applications, etc.)

- LAC and AWC appointments are available Mon-Thurs 9am-8pm and Fri 9am-5pm. Students may schedule appointments online at [https://lacscheduling.uc.edu](https://lacscheduling.uc.edu) or by contacting the LAC at (513) 556-3244.