1. **Course Details**

   **Instructor:** Caroline Taylor, Chem Sci 701C  
   email: cmtaylor @ mtu . edu  
   Office Hours: Monday, Wednesday 1pm – 2pm, or by appointment

   **Lecture:** ChemSci 104B (**nb: room change!**)  
   M,T,Th,F from 8:05am – 9:20am

   **Discussion:** ChemSci 104B  
   W from 8:05am – 9:20am

   **TA:** Muralidhara Thimmaiah  
   email: mthimmai @ mtu . edu  
   Office Hours: Friday 2:00 – 3:00pm ChemSci 717

   **Text:** “Introduction to Chemical Principles” 8th Ed.,  
   H. Stephen Stoker  
   Pearson/Prentice Hall

   **Webpage:** [http://www.chemistry.mtu.edu/pages/courses/class.php?class=CH1000&sem=20053](http://www.chemistry.mtu.edu/pages/courses/class.php?class=CH1000&sem=20053)

2. **Lecture**

   The primary portion of this course is the lecture. It will meet 4 days a week (MTThF) for an hour and 15 minutes. While attendance will not be taken, participation can effect the final grade.

3. **Recitation**

   Associated with the course is a recitation or discussion section led by the TA. This is a forum for questions about material covered in lecture and the text, and about problem sets and exams, among other things. It is not intended to replicate lecture, but to supplement it and allow for additional interaction.

   Participation in the recitation section will be reflected in the final course grade.

4. **Grading**

   The course grade will be determined from the final exam, 3 midterm exams, cumulative problem set scores, and participation in lecture and recitation.

   The anticipated breakdown is:
   - 10% participation
   - 20% problem sets
   - 30% midterm exams
   - 40% final (cumulative)

5. **Problem Sets**

   There will be biweekly problem sets handed out and collected in class. They are due at the beginning of the lecture; no late papers will be accepted. The lowest problem set score will be dropped from the grade.

   The problem sets will typically be worth 100 points, and consist of about 10 problems. Only a limited number of problems will be assigned as part of the sets. Do as many problems in the text (and elsewhere) as possible.
6. **Exams**

There will be 3 midterm exams on portions of the material covered in the lecture and text. These exams will be held during the normal class time and will last 1 hour and 15 minutes. Programmable calculators and outside materials are not allowed. The exams are *tentatively* scheduled to take place on the following dates:

**EXAM 1:** Friday, 7/8  
Atoms and Molecules (Ch. 4–7)

**EXAM 2:** Thursday, 7/21  
Stoichiometry and Bonding (Ch 8–10)

**EXAM 3:** Friday, 8/5  
Thermodynamics and Solution Chemistry (Ch. 11–16)

The final exam will be on Friday, 8/12, time and location to be announced. It will be cumulative. These exams will constitute the bulk of your course grade. **There will be no make-up exams.**

7. **Academic Integrity**

Collaboration is expected and encouraged. However, every student must submit their own work. Please review the University’s policy on Academic Integrity, available at [www.admin.mtu.edu/dos/acadinteg.1.html](http://www.admin.mtu.edu/dos/acadinteg.1.html).

Any violations will be subject to the full range of penalties, from a zero score on the assignment or exam to failure of the course and an indication on the permanent record.

8. **Tentative Schedule**

**Week 1:** Preliminaries: Context, Math, Units: Chapters 1, 2, 3, 4  
Atoms and Compounds I: atoms, Chapter 5

**Week 2:** Atoms and Compounds I: electrons and bonding: Chapters 6, 7  
**EXAM 1:** Atoms and Molecules (Ch. 4–7)

**Week 3:** Atoms and Compounds II: Moles, Stoichiometry and Nomenclature: Chapters 8, 9 10

**Week 4:** **EXAM 2:** Stoichiometry and Bonding (Ch 8–10)  
Matter and Thermodynamics I: States: Chapter 11

**Week 5:** Matter and Thermodynamics II: Gases and Solutions: Chapters 12, 13

**Week 6:** Solution Chemistry: Equilibrium, Acids and Bases, Red-Ox: Chapters 14, 15, 16

**Week 7:** **EXAM 3:** Thermodynamics and Solution Chemistry (Ch. 11–16)  
Nuclear chemistry and special topics: Chapter 17

**FINAL EXAM:** August 12, CUMULATIVE