Chemistry 101 Course Policies

CHEMISTRY 101A
Instructor  Gretchen M. Adams
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Phone  217.244.8279
E-mail  gadams4@illinois.edu
Office hours  Tuesdays and Thursdays from 3–4 P.M. (after lecture) and by appointment
Website address  www.chem.uiuc.edu

CHEMISTRY 101B
Instructor  Lindsay J. Sperling
Office  2 Chemistry Annex
Phone  217.244.1583
E-mail  lsperli2@illinois.edu
Office hours  Tuesdays and Thursdays from 9–10 A.M. (after lecture) and by appointment
Website address  www.chem.uiuc.edu

COURSE INFORMATION

Times:
CHEMISTRY 101A
Lecture  Tuesday and Thursday: 2:00–2:50 P.M., 100 NL
Lab  Wednesday
Discussion  Friday

CHEMISTRY 101B
Lecture  Tuesday and Thursday: 8:00–8:50 A.M., 100 NL
Lab  Wednesday
Discussion  Friday

Required Materials:
Lab manual:  Chemistry 101 Syllabus and Lab Book, Fall 2009
Calculator:  A simple calculator that performs scientific notation.
Safety goggles:  These can be purchased in the bookstore.
Lab apron:  This can be purchased in the bookstore.
Lab notebook:  Any notebook designated for the lab, or college-ruled theme paper.
Usage fee card:  This can be purchased at the Illini Union bookstore.

Grading:
Hour exams (3)  300
Final exam  300
Lab write-ups  250
Electronic HW  90
Clicker questions  20
Stoichiometry Workshop  20
TA Evaluation  20
1,000
Exam Dates:
There will be three hour exams during the semester. These will be given from 7:00 p.m. to 8:15 p.m. on:

- Tuesday, September 22 (Chapters 1, 2, 3.1−3.5, 4, 5, 8, 13.1−13.9)
- Tuesday, October 27 (Chapters 6, 7.1−7.4, 9.1−9.4, 13.10, 15.1−15.2, 15.4−15.7)
- Thursday, December 3 (Chapters 10.1−10.3, 11, 12, 14.1, 14.3−14.4)

Conflicts for exams must be arranged ahead of time by signing up outside of 105 Chem Annex.

Final Exam:

**101A**: Wednesday, December 16, 7:00−10:00 p.m.

**101B**: Wednesday, December 16, 8:00−11:00 a.m.

The final exam will be cumulative. There is no scheduled conflict for the Final Exam. **Do not** make plans to leave campus before the Chemistry 101 final.

COURSE DETAILS

Lectures:

**101A**: Lectures meet each Tuesday and Thursday from 2:00−2:50 p.m. in 100 Noyes Lab.

**101B**: Lectures meet each Tuesday and Thursday from 8:00−8:50 a.m. in 100 Noyes Lab.

The purpose of the lecture is to present main concepts and ideas. The emphasis is on how to think about chemistry. Active participation (asking and answering questions) is required.

Discussions:

Discussion sections meet each Friday. This is the time to ask questions of a teaching assistant and to be asked conceptually challenging problems. Active participation is strongly encouraged.

Laboratory:

Labs meet each Wednesday. Always bring your textbook, lab manual and calculator to lab. You will perform the experiment or activity and complete as much of the lab write-up as you can before leaving the lab. If you decide to leave the lab early, you must turn in your lab write-up (anything not completed will be given a score of zero). Lab write-ups are due within the first five minutes of the next lab session or else NO CREDIT is given. The exceptions are the Review Questions before each exam. These are due at the end of the lab period in which you are to work on them. We also encourage you to turn lab write-ups in early!

**You must be present in lab to receive credit for the lab write-up. Late lab write-ups will not be accepted.**

Office Hours:

**101A**: Office hours are on Tuesdays and Thursdays from 3−4 p.m. (after lecture). You can also make appointments to meet with me by seeing me after lecture, sending me an e-mail, or calling me on the phone.

**101B**: Office hours are on Tuesdays and Thursdays from 9−10 a.m. (after lecture). You can also make appointments to meet with me by seeing me after lecture, sending me and e-mail, or calling me on the phone.

Your TA will have at least 2 hours of office hours each week. He/she will discuss these with you in class in both lab and discussion.
**Electronic Homework:**

You will be given electronic homework using an interactive web-based learning tool. These questions can be attempted an unlimited number of times for full credit before the due date.

**Learning Center (212 Chem Annex):**

General chemistry TA's will be available for assistance in the Learning Center from 9 A.M. to 5 P.M. Monday–Friday during the weeks classes are in session. Additional texts and study aids are available.

**The hours of operation for the Learning Center are:**

- Monday–Thursday: 8:30 A.M.–10:00 p.m.
- Friday: 8:30 A.M.–5:00 p.m.
- Saturday: 10:00 A.M.–5:00 p.m.
- Sunday: 1:00 P.M.–8:00 P.M.

**CALENDAR—FALL 2009**

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HE = Hour Exams  
S/F = Classes start/finish in Chemistry 101  
101A Final Exam Date = Wednesday, December 16 (7:00–10:00 P.M.)  
101B Final Exam Date = Wednesday, December 16 (8:00–11:00 A.M.)
## LECTURE SYLLABUS—FALL 2009

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>CHAPTER</th>
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<tbody>
<tr>
<td>8/25, 8/27, 9/1</td>
<td>Atoms, Molecules, and Ions</td>
<td>4 (1, 2, 3.1–3.5, 5)</td>
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<td>9/3, 9/8</td>
<td>Chemical Composition</td>
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<td><strong>9/22 (Tuesday)</strong></td>
<td><strong>EXAM I: 7:00–8:15 P.M.</strong></td>
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<td>9/24, 9/29, 10/1</td>
<td>Chemical Equations and Reactions in Aqueous Solutions</td>
<td>6, 7.1–7.4</td>
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<td>Solutions</td>
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<td>Stoichiometry</td>
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<td>Energy</td>
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<td>Modern Atomic Theory and Chemical Bonding</td>
<td>11, 12</td>
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<td>11/19, 12/1</td>
<td>Liquids and Solids</td>
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<td><strong>12/3 (Thursday)</strong></td>
<td><strong>EXAM III: 7:00–8:15 P.M.</strong></td>
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LABORATORY SCHEDULE

Introduction and Check-in
Activity 1: Measurements
Lab 1: Explorations with Gases
Review Questions for Exam I
NO LAB
Lab 2: Precipitation Reactions
Activity 2: Nuts & Bolts and Stoichiometry
Lab 3: Limiting Reactants
Review Questions for Exam II
NO LAB
Lab 4: Weak Acid Unknown
Lab 5: Modern Atomic Theory
Activity 3: Making Models of Molecules
Review Questions for Exam III
Final Lab Day and Check-out

ELECTRONIC HOMEWORK SCHEDULE

Assignment #1: Friday, September 4, 4:00 P.M.
Assignment #2: Friday, September 11, 4:00 P.M.
Assignment #3: Friday, September 18, 4:00 P.M.
Assignment #4: Friday, October 9, 4:00 P.M.
Assignment #5: Friday, October 23, 4:00 P.M.
Assignment #6: Friday, November 13, 4:00 P.M.
Assignment #7: Monday, November 30, 4:00 P.M.
Assignment #8: Wednesday, December 2, 4:00 P.M.
SUGGESTED TEXTBOOK HOMEWORK FOR CHEMISTRY 101

This homework is in addition to the electronic homework. Your TA’s will tell you the specific due dates for the particular problems they assign, and collect them at the beginning of Friday discussion sections. You are expected to understand all of the concepts in these problems. Each problem is found under the *Questions and Problems* section at the end of the chapter.

**Note:** Chapter 2 and Chapter 3 homework is due Friday, August 28.

### Text Homework for Exam I

**Chapter 2:** 5, 7, 11, 26, 33, 35, 36, 37, 42, 68, 96

**Chapter 3:** 15, 18, 19, 20, 27, 28, 29, 32, 39, 57

**Chapter 4:** 9, 10, 13, 14, 19, 39, 41, 43, 53, 60, 74, 77, 83, 84, 91, 93, 104

**Chapter 5:** 9, 10, 13, 14, 17, 19, 22, 33, 35, 36, 39, 41, 43, 45, 50, 57, 60, 73, 77, 78, 83, 84, 91, 93

**Chapter 8:** 6, 8, 11, 14, 16, 18, 19, 22, 27, 29, 32, 34, 37, 46, 50, 52, 55, 58, 59, 66, 70, 77, 81, 92, 100, 118, 124

**Chapter 13:** 17, 21, 24, 31, 36, 37, 42, 43, 52, 56, 60, 69, 75, 77, 78, 80, 81, 82, 105, 138, 146

### Text Homework for Exam II

**Chapter 6:** 2, 6, 13, 16, 18, 19, 21, 24, 29, 34, 38, 40, 41, 43, 73, 76

**Chapter 7:** 11, 15, 18, 21, 22, 26, 40, 74

**Chapter 15:** 34, 35, 37, 41, 47, 55, 56, 58, 62

**Chapter 9:** 5, 12, 14, 16, 19, 24, 29, 35, 37, 45, 48, 51, 56, 90

**Chapter 13:** 85, 87, 113

**Chapter 15:** 64, 65, 67, 70, 71

### Text Homework for Exam III

**Chapter 10:** 6, 8, 13

**Chapter 11:** 3, 7, 8, 12, 16, 19, 25, 26, 29, 31, 35, 39, 45, 47, 50, 51, 55, 58, 61, 63, 73, 74, 76, 77, 78, 95, 116

**Chapter 12:** 1, 7, 8, 11, 14, 16, 19, 23, 25, 33, 38, 40, 43, 44, 45, 48, 60, 63, 66, 67, 77, 78, 80, 81, 86, 110, 116, 119

**Chapter 14:** 1, 5, 7, 8, 9, 10, 11, 19, 21, 25, 27, 31, 74, 75, 76, 80