

Syllabus

CHE 106: General Chemistry Lecture

Fall 2009 Tues/Thurs 12:30-1:50 pm

Section M001, 3 credits Lectures TuTh 12:30 - 1:50 pm Gifford Auditorium (HB Crouse Hall)

Professor Tess Freedman (tbfreedm@syr.edu)

Office: 0-010 CST (Center for Science and Technology); Phone 443-3697

Office hours: 2:30-3:30 p.m. Tuesday and 2:30-3:30 Wednesday in 0-010 CST or by appt.

Web Materials for Course Posted on <http://blackboard.syr.edu>

Required Textbook and Related Materials: *Chemistry, The Central Science* 11th Edition; Brown, LeMay, Bursten and Murphy, Pearson/Prentice Hall, 2009; Student's Guide (J. M. Hill); MasteringChemistry (online tutorials and selected problems); i>clicker. This material is all available at the SU Bookstore as custom text packages. NOTE: Students whose major requires only one semester of chemistry (Aerospace, Civil, Computer, Electrical and Mechanical Engineering Students) have the option of purchasing a custom text that includes Chapters 1-10 and 12 only. Students who will be taking CHE 116 next spring need the entire text. Make sure you have the correct textbook package!

Chemistry Secretary: Nancy Virgil, Room 120 Life Sciences Complex, 443-2851 nvirgil@syr.edu

Recitations:

Number	Day	Time	Room	Recitation TA
M002	Tues	3:30-4:25 pm	Life Sciences Complex (LSC) 100	Alan Goos
M003	Wed.	7:30-8:25 pm	Bowne Hall (BH) 125	Peter Rosado-Flores
M004	Tues.	7:30-8:25 pm	Sims 237	Alan Goos
M005	Wed.	2:15-3:10 pm	Shaw 029H	Amanda Hoffman
M006	Tues.	5:00-5:55 pm	LSC 011	Peter Rosado-Flores
M007	Wed.	5:15-6:10 pm	BH 110	Amanda Hoffman
M008	Wed.	3:45-4:40 pm	Link 103	Peter Rosado-Flores
M009	Wed.	7:30-8:25 pm	BH 110	Alan Goos
M010	Wed.	10:35-11:30 am	Slocum 101	Amanda Hoffman

Recitation TAs: Alan Goos aggoos@syr.edu Office Hours: Wed. 5 – 7 pm
Amanda Hoffman amhoffma@syr.edu Office Hours: Mon. 1 – 3 pm
Peter Rosado-Flores pjrosado@syr.edu Office Hours: Mon. 5 – 7 pm

TA Office Hours are held in the Chemistry 106 Clinic, LSC 115. Students can attend office hours for any of the ten CHE 106 TAs, not just those assigned to this section.

Course Description: CHE 106 is the first semester of the two-semester introductory general chemistry sequence intended for undergraduates with majors in various science and engineering disciplines, those pursuing careers in the health professions, and others desiring a firm foundation in chemistry. The CHE 106/116 sequence (or equivalent courses) is a prerequisite for most other chemistry courses. In this course we will introduce you to the study of materials—their composition, physical and chemical properties and the changes these materials undergo. Topics will cover the first ten chapters of the text, including: basic

definitions and laws and understanding the physical measurement process (Chapter 1); atomic theory, atomic structure, and chemical formulas and nomenclature (Chapter 2); chemical equations and calculations with chemical formulas and equations (Chapter 3); the basic types of chemical reactions, focusing on reactions in solution and solution concentrations (Chapter 4); thermochemistry, the quantity of heat absorbed or released in a chemical reaction (Chapter 5); atomic and molecular structure, beginning with the quantum theory of the atom and atomic structure (Chapter 6), the periodic table and periodic properties (Chapter 7), and continuing to descriptions of ionic and covalent bonding (Chapter 8) and then to theories of chemical bonding to explain molecular geometries (Chapter 9); and finally, the gaseous state (Chapter 10). The approach will be to understand the chemical concepts and apply the concepts through problem solving. Although most of you have taken high school or other chemistry courses, we assume no prior knowledge and start over with the basics, covering concepts in greater depth than with your first introduction to chemistry. Our aim is for you to get a feel for the fascination and excitement of new discoveries in chemistry while obtaining a firm foundation in the fundamental principles and facts.

Assignments and Lectures: The syllabus includes assigned reading from the text and associated problems from the textbook for each lecture. You will benefit most from the lectures if you read the assigned material *before* the lecture. The assigned problems are due at your recitation the week following the lecture and will be discussed in recitation and graded. Working problems is the only way to learn the chemical concepts. You may also benefit from working through the “Visualizing Concepts” problems at the end of each chapter to understand the concepts without focusing on a numerical result. Exams will contain material from the lectures, readings and problem sets. Do all the recommended problems—and then some! When you can solve the problems easily and quickly, you won’t be wasting time during the exams thinking about how to solve a particular type of problem.

Student’s Guide. Use the Student’s Guide that accompanies your text to help develop your problem-solving skills, and identify areas where you may be having trouble. Use the Self-test Questions and solutions as you review for exams. This Guide also contains MCAT and DAT Practice Questions, which you can use for future review and preparation for the General Chemistry sections of those exams if you decide to pursue admission to medical or dental school.

MasteringChemistry. We will be using Mastering Chemistry, an online tutorial and homework system. Approximately one-third of the assigned homework questions are to be completed and submitted online each week, covering the material in the previous week’s lectures. MasteringChemistry Tutorials for each chapter will be assigned, with a due date before the exam on that chapter. The tutorials are designed to help reinforce concepts needed for the exams and problem solving.

Login at <http://www.masteringchemistry.com>. You will need the following to enroll in *Mastering General Chemistry*:

Course ID: **MCFREEDMAN70206**

Student ID: Your SUID number

Student Access Code: included in your textbook package or purchase separately online.

Specific instructions on registering for *Mastering Chemistry* are included at the end of this syllabus, in the posting on Blackboard and with your textbook.

Please enroll as soon as possible and complete the “Introduction to Mastering Chemistry” assignment, which will introduce you to the program and how to use it for various types of problems. MasteringChemistry also has a link to a “Study Area” with chapter summaries, practice quizzes, videos and activities for each chapter in the text.

I>Clicker. We are using the i>clicker classroom response system for the first time in CHE 106 this year. You are required to bring your clicker to each class, and to use it to respond to multiple choice questions posed throughout each lecture. More information about the i>clicker is at the end of this syllabus.

Important: Please do not register your i>clicker before the first time you use it in class. Your participation and responses to i>clicker questions will be used as bonus credit that may move your grade up if you are on the borderline between grade designations.

For CHE 106, you must register on the IClicker Web Registration site. Important: you must use your iClicker once in class before registering. Then go to <http://www.iclicker.com> and register with your first name, last name, SU NetID as your Student ID (use your SU log in user name, NOT your SUID number) and your iClicker ID, a series of 8 numbers and letters located the back of the remote, just below the iClicker instructions.

Recitations and Problem Sets: Recitation sections are an important part of this course for all students. Recitations begin the second week of class and are required of all students. Problem sets are due at recitation and will be graded (approximately 2/3 of the assigned problems for the week must be completed in written form and turned in at recitation). Weekly quizzes will be given in recitation. Much of the material in this course is quantitative in nature, and recitations allow time to go over the assigned problems and discuss the lecture material in smaller groups. You may be surprised how many other students have the same questions you have. Remember—no question is a “stupid” question. Your TAs are there to help you understand the material and provide problem-solving strategies.

Quizzes: Recitation quizzes (10-15 minutes long) will be given at the end of each recitation, covering the material for that recitation. There are no make-up quizzes.

TA office hours are in the Chemistry Clinic in LSC 115. Office hours for all ten TAs assigned to CHE 106 will be posted on the door of LSC 115. If you have questions about the lecture or problem sets, you are welcome to attend office hours for any of the TAs, not just the TA to whose recitation you are assigned. All sections of CHE 106 are using the same problem set assignments.

Office Hours and Help Sessions: I will hold open office hours from 10 am – 3 pm and a help session 5-7 pm the Wednesday before each hour exam. My regular weekly office hours are 2:30-3:30 p.m. Tuesday and Wednesday in my laboratory, 0-010 Center for Science and Technology (in the basement of Sci-Tech, right under the main chemistry office), but I welcome you to make appointments to see me at other times. Please call (443-1134, office or 443-3697, lab) or e-mail (tbfreedm@sy.edu) for an appointment to insure I'll be available. The office phone number listed rings through to the laboratory if I am not in my office in 3-010 CST. The student in the laboratory will try to take a message, but it is best if you speak to me in person or e-mail me. If you find yourself struggling with the material, please don't wait until the end of the semester to see me. I can help with study and problem solving strategies.

Laboratory: Most students in CHE 106 should also be enrolled in the laboratory course, CHE 107, with Prof. Borer. Efforts have been made to coordinate the curricula of the two courses, but the instruction, grading and administration are completely separate. Please do not ask your CHE 106 TAs questions about the labs. CHE 107 TAs hold office hours in LSC 117.

Attendance: Attendance will be taken each week in recitation, and in lecture in conjunction with 'i>clicker' questions. Lecture attendance will be taken into account for your final grade as follows: Students who are on the borderline between grade designations and who have three or fewer absences will be considered for the higher grade. Attendance in recitation is part of your recitation grade. Absences due to a religious holy day will be excused, and an opportunity to make up lecture or recitation work will be provided, but you must notify Prof. Freedman and your TA one week before the absence. Students missing class for scheduled athletic trips must present verification before each trip. Medical absences will be verified

by the Chemistry Department, and may be excused based on written advice from the Health Center or health-care provider (based on clinical findings and prescribed treatment recommendations).

Calculators: Please bring a scientific calculator with you to all lectures, recitations and exams. Calculator memory will be cleared before all exams, so we recommend a basic scientific calculator for this course.

Grades and Examinations: Three hour-exams will be given at the times below during regular class time. For the hour exams, students will be assigned to either Gifford Auditorium or Watson Auditorium to permit seating every-other-seat. There are no make-up exams, but you should contact me beforehand if you know you will miss an exam, or let me know immediately if you miss an exam unexpectedly. If a student fails to take one of the hour exams for a valid *documented in writing medical/emergency reason*, the average of the two remaining exams will be used for the third exam grade to calculate the final grade.

Hour exams:

Thursday, October 1	Exam 1 (Chapters 1, 2 and 3)
Thursday, October 29	Exam 2 (Chapters 4, 5 and 6)
Thursday, December 3	Exam 3 (Chapters 7, 8 and 9)

The Final Exam will be cumulative, with material from Chapters 1-9 and from Chapter 10. The final exam is on Tuesday, December 15, 12:30 – 2:30 p.m.

Note: The following courses are scheduled for the same final exam time: CHE 106; FRE 101,102, 201, 202; GER 101, 201 CHI 101, 201; JPS 101, 201. If you have a conflict, please let me (and your language professor) know so we can arrange an alternative time for one of your finals.

Calculation of the Final Grade:

	% of final grade
3 Hour Exams (each 20%)	60
Final	25
Recitation (Homework, Quizzes and Attendance)	10
Mastering General Chemistry (Tutorials and Homework)	5
Total	100

Lecture Etiquette: We have a very large class this semester. Please arrive promptly and please silence all pagers and cell phones prior to the start of lecture. If you come in late and lecture has already begun, please take a seat at the end of a row (and preferably near the back of the lecture hall) as a courtesy to those already seated. Please leave your crossword puzzles, newspapers, snacks, lunch, etc. at home or in your packs. You and your fellow students are here to learn. Talking, texting, using your laptop for purposes other than taking notes, and coming and going during class is disruptive, and you can make time for eating before or after class.

Academic Dishonesty: Cheating will not be tolerated. The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities, such as use of i>clickers. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see

<http://academicintegrity.syr.edu>. The Academic Integrity Policy is posted with the CHE 106 course materials on Blackboard. In addition, read the material for students at <http://academicintegrity.syr.edu>. You will be asked to sign a statement affirming that you have read and understand this policy. Students found to cheat will receive an F for that assignment. Students have a right to appeal. You will be required to show your SU ID when you turn in your exam to compare your picture and signature. You will need a scientific calculator for the exams, but calculator memory will be cleared before each test. Studying together is fine, and is encouraged, but you will not learn the material by copying the homework answers from a friend or from the solution manual.

Disability-Related Accommodations: Students who are in need of disability-related academic accommodations must register with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498. Students with authorized disability-related accommodations should provide a current Accommodation Authorization Letter from ODS to the instructor and review those accommodations with the instructor. Accommodations, such as exam administration, are not provided retroactively; therefore, planning for accommodations as early as possible is necessary. For further information, see the ODS website, Office of Disability Services <http://disabilityservices.syr.edu>. We are happy to provide note takers, extra time and/or a quiet room for exams for students who need such accommodation.

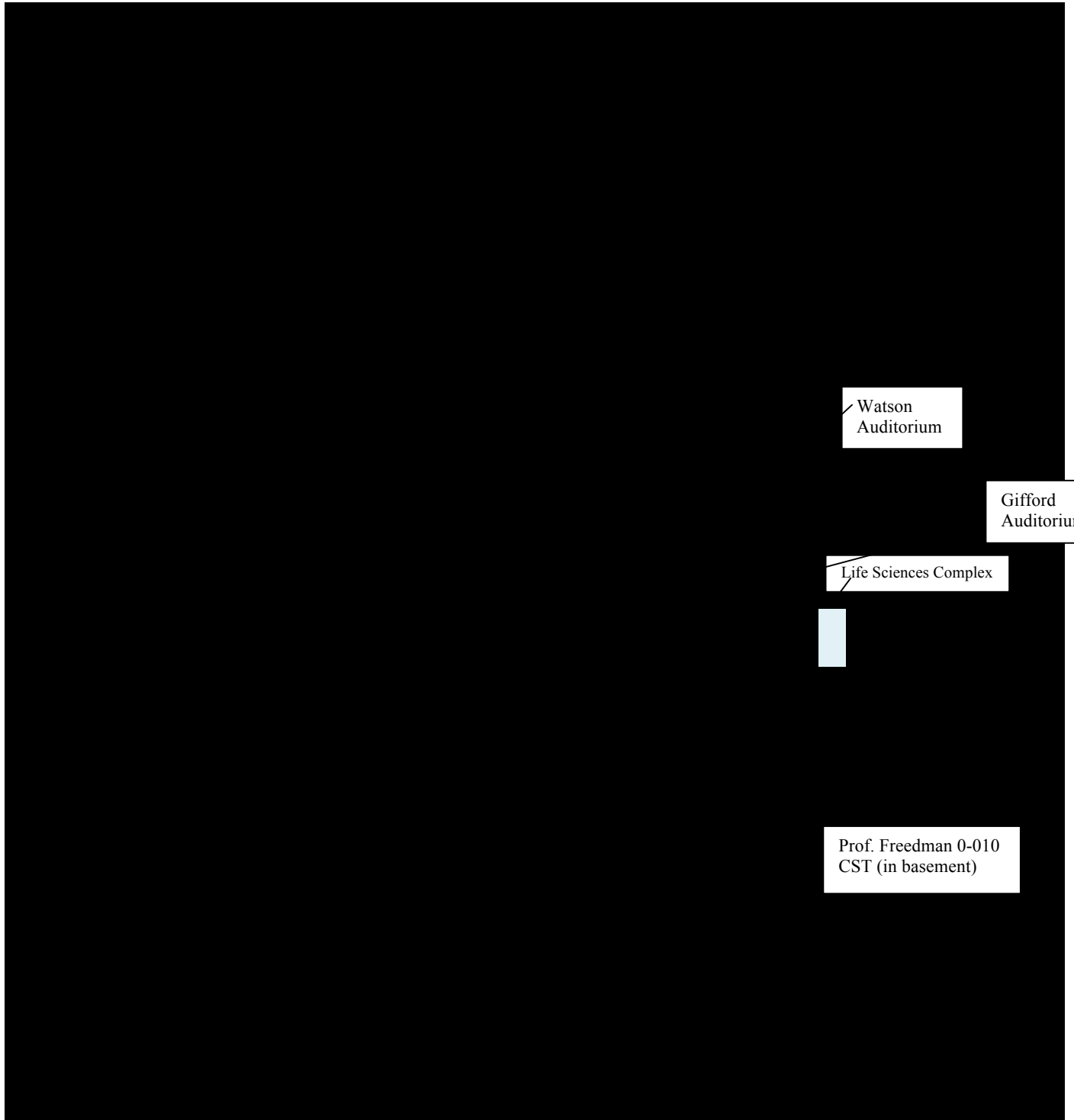
BLACKBOARD

Students enrolled in my section will have access to course materials and notices through Blackboard. You login using your NetID and password at:

<http://blackboard.syr.edu>

Click on the course number (CHE 106). I will use Blackboard (and e-mail) to communicate with you concerning any changes in the syllabus, corrections to assignments, etc. Sample exams, review sheets, and lecture outlines will be posted on Blackboard. You will be able to view your own scores for each examination on Blackboard. E-mails will be to your SU e-mail address, so check that frequently.

Use map below to locate your recitation classroom, Watson Auditorium and CST



CHE 106 Fall 2009 Professor Tess Freedman
Approximate Course Schedule

Text readings in Brown, LeMay, Bursten and Murphy, *Chemistry, The Central Science*, 11th Edition

All problems are at end of chapters in Brown, LeMay, Bursten and Murphy, *Chemistry, The Central Science*, 11th Edition

Date	Topic	Text Reading
Tues. Sept. 1	Syllabus; Introduction to MasteringChemistry and i>clicker	Syllabus; blue pages; preface
Thurs. Sept. 3	Classification and Properties of Matter; Units; Uncertainty	1.1-1.5
Tues. Sept. 8	Dimensional Analysis; Atomic structure; Atomic weights	1.6; 2.1-2.4
Thurs. Sept. 10	Periodic Table; Molecular and Ionic Compounds	2.5-2.8
Tues. Sept. 15	Naming Compounds; Chemical Equations	2.8-2.9; 3.1-3.2
Thurs. Sept. 17	Moles: Empirical Formulas; Stoichiometry	3.3-3.6
Tues. Sept. 22	Limiting Reactants; Precipitation	3.7; 4.1-4.2
Thurs. Sept. 24	Acid-Base and Oxidation-Reduction Reactions	4.3-4.4
Tues. Sept. 29	Review for Exam 1	
Thurs. Oct. 1	Exam 1 (Chapters 1, 2, 3)	
Tues. Oct. 6	Solutions; Chemical Analysis	4.5-4.6
Thurs. Oct. 8	Thermochemistry, part 1	5.1-5.4
Tues. Oct. 13	Thermochemistry, part 2	5.5-5.8
Thurs. Oct. 15	Electronic Structure of Atoms	6.1-6.5
Tues. Oct. 20	Atomic orbitals; Electron Configurations	6.5-6.8
Thurs. Oct. 22	Periodic Table and Periodic Properties	6.9; 7.1-7.5
Tues. Oct. 27	Review for Exam 2	
Thurs. Oct. 29	Exam 2 (Chapters 4, 5, 6)	
Tues. Nov. 3	Periodic Properties; Chemical Bonds; Lewis Symbols; Ionic Bonds	7.6-7.8; 8.1-8.2
Thurs. Nov. 5	Covalent Bonds; Lewis Structures; Resonance	8.3-8.6
Tues. Nov. 10	Exceptions to Octet Rule; Bond Strengths; Molecular Shapes; VSEPR Model	8.7-8.8; 9.1-9.2
Thurs. Nov. 12	VSEPR Model; Polarity; Covalent Bonds	9.2-9.4
Tues. Nov. 17	Hybrid Orbitals; Molecular Orbitals	9.5-9.8
Thurs. Nov. 19	Empirical Gas Laws	10.1-10.5
Tues. Nov. 24	Gas Stoichiometry; Partial Pressures; Kinetic-Molecular Theory	10.6-10.9
Nov. 25-29	Thanksgiving Break	
Tues. Dec. 1	Review for Exam 3	
Thurs. Dec. 3	Exam 3 (Chapters 7, 8, 9)	
Tues. Dec. 8	Review for Final (Chapters 1,2,3)	
Thurs. Dec. 10	Review for Final (Chapters 4,5,6,10)	
Tues. Dec.15	Comprehensive Final Examination	12:30-2:30 p.m.

Assigned End-of Chapter Problems for each lecture are listed by Chapter Section on the following page. These problems are due at the recitation the week after the lecture, as shown in the Recitation Schedule on Page 9. MasteringChemistry tutorials are assigned for each Chapter, to be completed as shown in the table on Page 9.

Assigned Problems by Chapter Section

Date material covered in Lecture	Chapter Section	Problems to hand into TA	Problems to do on MasteringChemistry
Thurs. Sept.3	<i>1.2-1.3</i>	1.16, 21	1.12, 14, 18
	<i>1.4</i>	1.24, 25, 27, 30, 31	
	<i>1.5</i>	1.34, 39, 40	1.36
Tues. Sept. 8	<i>1.6</i>	1.47, 49	1.42
	<i>2.1-2.2</i>	2.9, 13, 16	
	<i>2.3-2.4</i>	2.19, 26, 30, 31	2.20, 23
	<i>2.5-2.6</i>	2.41, 42	2.38, 43, 46, 48
	<i>2.7</i>	2.49, 58	2.56, 60
Tues. Sept. 15	<i>2.8-2.9</i>	2.65, 68, 71, 78	
	<i>3.1</i>	3.9, 10, 11, 14ab	
	<i>3.2</i>	3.15, 20	
Thurs. Sept. 17	<i>3.3</i>	3.24ab, 25a	3.22
	<i>3.4</i>	3.28, 29, 34, 35	3.38
	<i>3.5</i>	3.43, 50a	3.48
	<i>3.6</i>	3.57, 63ab	
Tues. Sept. 22	<i>3.7</i>	3.68, 71	3.70, 74
	<i>4.1</i>	4.12, 13	4.16
	<i>4.2</i>	4.22, 24	4.20, 23
Thurs. Sept. 24	<i>4.3</i>	4.31, 34, 39, 40	4.35, 38
	<i>4.4</i>	4.51, 53, 56	4.50, 52
Tues. Oct. 6	<i>4.5</i>	4.60, 61, 65, 75	4.70
	<i>4.6</i>	4.82	
Thurs. Oct. 8	<i>5.1</i>	5.13, 16, 21	
	<i>5.2</i>	5.25, 27	5.26
	<i>5.3-5.4</i>	5.31, 32, 34, 35, 38, 39, 45	5.42
Tues. Oct. 13	<i>5.5</i>	5.48, 49, 55	5.52
	<i>5.6</i>	5.61	5.64
	<i>5.7</i>	5.67, 71, 73, 76	5.70
Thurs. Oct. 15	<i>6.1</i>	6.10, 11, 15	6.14
	<i>6.2</i>	6.21, 25	6.24, 28
	<i>6.3-6.4</i>	6.31, 35, 41	6.34, 38, 44
Tues. Oct. 20	<i>6.5-6.6</i>	6.48, 49, 53, 55	6.52, 54
	<i>6.7-6.9</i>	6.59, 60, 62, 63, 67, 69	6.66, 70
Thurs. Oct. 22	<i>7.1-7.2</i>	7.8, 9, 12, 15	
	<i>7.3</i>	7.17, 21, 23, 28, 31, 33	7.20, 26
	<i>7.4-7.5</i>	7.41, 44, 45, 47, 53	7.50
Tues. Nov. 3	<i>7.6</i>	7.58, 61, 65, 67	7.60
	<i>7.7-7.8</i>	7.69, 72, 75, 78	
	<i>8.1</i>	8.9	8.12
	<i>8.2</i>	8.13, 17, 20, 21, 23	8.16
Thurs. Nov. 5	<i>8.3-8.4</i>	8.29, 32, 33, 37, 41, 43	8.36, 40
	<i>8.5-8.6</i>	8.45, 48, 49, 53, 55	8.46, 52
Tues. Nov. 10	<i>8.7</i>	8.61, 63	
	<i>8.8</i>	8.67, 69	8.66
	<i>9.1-9.2</i>	9.12, 13, 15, 19, 21, 25, 28	9.16, 20
Thurs. Nov. 12	<i>9.3</i>	9.31, 35, 38	9.36
	<i>9.4-9.5</i>	9.40, 41, 43, 45	9.48
Tues. Nov. 17	<i>9.6</i>	9.49, 51, 55	9.54
	<i>9.7-9.8</i>	9.60, 61, 63, 64, 65, 69	
Thurs. Nov. 19	<i>10.1-10.2</i>	10.13, 14, 15, 20, 21	
	<i>10.3</i>	10.25, 27	10.26
	<i>10.4</i>	10.30, 31, 35, 43	10.34, 40
Tues. Nov. 24	<i>10.5</i>	10.45, 47, 57	10.50, 54
	<i>10.6</i>	10.61, 63	10.60, 66
	<i>10.7-10.8</i>	10.75, 77	10.82

CHE 106 Fall 2009
Professor Tess Freedman
Recitation Schedule and MasteringChemistry Assignments

- Material to be covered each week in recitation is listed in the table below. All problems are at end of chapters in Brown, LeMay, Bursten and Murphy, *Chemistry*, 11th Edition
- Quizzes, given at end of each recitation period, will be on material covered and problems due at that recitation.
- Problems denoted below as “Problems Due at Recitation” should be turned in to your recitation instructor and will be graded and returned to you.
- “Problems to complete on MasteringChemistry” must be completed on the MasteringChemistry.com site by the posted deadline (one problem assignment per chapter), and will be graded online. You should do the problems in the MasteringChemistry assignment listed for each recitation before attending recitation.
- MasteringChemistry tutorials, one assignment per chapter, are to be completed online by the deadline (the evening before the exam on that chapter) in order to obtain credit for the assignment. You may want to complete the tutorial question on a given topic before attempting the assigned end-of-chapter questions on that topic.

Recitation Date (Tues. or Wed.) Material Covered in Recitation	Problems Due at Recitation	Problems to complete on MasteringChemistry
September 8, 9: Chap. 1.1-1.5; Quiz #1	1.16, 21, 24, 25, 27, 30, 31, 34, 39, 40	1.12, 14, 18, 36, 42
September 14, 15 Chap. 1.6; 2.1-2.7 Quiz #2	1.47, 49; 2.9, 13, 16, 19, 26, 30, 31, 41, 42, 49, 58	2.20, 23, 38, 43, 46, 48, 56, 60
September 22, 23 Chap. 2.8-2.9; 3.1-3.5 Quiz #3	2.65, 68, 71, 78; 3.9, 10, 11, 14ab, 15, 20, 24ab, 25a, 28, 29, 34, 35, 43, 50a	3.22, 38, 48
September 29, 30 Chap. 3.6-3.7; Rev. for Exam 1; Quiz #4	3.57, 63ab, 68, 71	3.70, 74
October 6, 7: Chap. 4.1-4.4; Go over Exam 1; Quiz #5	4.12, 13, 22, 24, 31, 34, 39, 40, 51, 53, 56	4.16, 20, 23, 35, 38, 50, 52
October 13, 14: Chap. 4.5-4.6; 5.1-5.4 Quiz #6	4.60, 61, 65, 75, 82; 5.13, 16, 21, 25, 27, 31, 32, 34, 35, 38, 39, 45	5.26, 42
October 20, 21: Chap. 5.5-5.7; 6.1-6.4 Quiz #7	5.48, 49, 55, 48, 49, 55, 61, 67, 71, 73, 76; 6.10, 11, 15, 21, 25, 31, 35, 41	5.52, 64, 70 6.14, 24, 28, 34, 38, 44
October 27, 28: Chap. 6.5-6.9; Rev. for Exam 2 Quiz #8	6.48, 49, 53, 55, 59, 60, 62, 63, 67, 69	6.52, 54, 66, 70
Nov. 3, 4: Chap. 7.1-7.5; Go over Exam 2 Quiz #9	7.8, 9, 12, 15, 17, 21, 23, 28, 31, 33, 41, 44, 45, 47, 53	7.20, 26, 50
November 10, 11: Chap. 7.6-7.8; 8.1-8.6 Quiz #10	7.58, 61, 65, 67, 69, 72, 75, 78; 8.9, 13, 17, 20, 21, 23, 29, 32, 33, 37, 41, 43, 45, 48, 49, 53, 55	7.60; 8.12, 16, 36, 40, 46, 52
November 17, 18: Chap. 8.7-8.8; 9.1-9.2 Quiz #11	8.61, 63, 67, 69; 9.12, 13, 15, 19, 21, 25, 28	8.66; 9.16, 20
November Dec 1, 2: Chap 9.3-9.8; Rev. for Exam 3 Quiz #12	9.31, 35, 38, 40, 41, 43, 45, 49, 51, 55, 60, 61, 63, 64, 65, 69	9.36, 48, 54
December 8, 10: Chap. 10.1-10.9; Go over Exam 3 Quiz #13	10.13, 14, 15, 20, 21, 25, 27, 30, 31, 35, 43, 45, 47, 57, 61, 63, 75, 77	10.26, 34, 40, 50, 54, 60, 66, 82

MasteringChemistry Tutorial Assignments (on MasteringChemistry.com)

Assignments	Due Date
Tutorial 1 (Chapter 1), Tutorial 2 (Chapter 2), Tutorial 3 (Chapter 3)	Wed. September 30
Tutorial 4 (Chapter 4), Tutorial 5 (Chapter 5), Tutorial 6 (Chapter 6)	Wed. October 28
Tutorial 7 (Chapter 7), Tutorial 8 (Chapter 8), Tutorial 9 (Chapter 9)	Wed. December 2
Tutorial 10 (Chapter 10)	Mon. December 14

Dear Student:

In this course you will be using MasteringChemistry, an online tutorial and homework system designed to help you succeed. Here's how to get started!

1. Register for MasteringChemistry

These instructions are accurate at time of printing. Your experience may vary slightly.

Go to www.masteringchemistry.com and click **New Students** under Register.

- To register using the Student Access Code located inside the MasteringChemistry Student Access Kit, click **Yes, I have an access code**. –OR–
- **Purchase access online:** Click **No, I need to purchase access online now** and follow the on-screen instructions to purchase access using a credit card or other method. (The purchase path includes registration, but the process differs from the steps here.)

License Agreement and Privacy Policy

- Click **I Accept** to indicate that you have read and agree to both the license agreement and privacy policy.

Do you have a Pearson Education account?

- **Yes** - Enter your established Login Name and Password, even if your access to another Pearson Education website has expired. If you provide this, you may be asked to create a more secure password later.
- **No** - You will be asked to specify a Login Name and Password, and then to confirm your password by retyping it.

*Create a Login Name
[]

*Create a Password
[]

*Re-type Your Password
[]

- **Not Sure** - Enter the email address associated with your Pearson Education student account and click **Search**.

Access Code

- Type your six-part student access code, one part in each box. Don't type the dashes. *Once you register for this site, you will not need this access code any longer.*

* Access Code
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Personal Information and Security Information

- Enter your first and last name, as well as a valid email address that you check regularly. *Your registration confirmation will be sent to the email address you provide.*
- Enter the requested information to help identify your school location.
- Select a security question and enter the answer. *This question is used in the event that you contact us and your identity must be confirmed.*

Click **Next** (only once!) to submit your registration for processing, which takes just a few moments.

Confirmation & Summary

A confirmation page informs you of the site(s) you have access to and that you will be receiving a confirmation email. *The confirmation email contains your login name and password for your reference. Your subscription to MasteringChemistry is good for 24 months from the time you first register.*

2. Log in to MasteringChemistry

Log in to MasteringChemistry as follows:

- If you are continuing from the Confirmation & Summary page (from last step in previous section): Click **Log In Now**.
- If you have left the Confirmation & Summary page, you can log in later: Go to **www.masteringchemistry.com**, enter your login name and password, and then click **Log In**.

3. Enroll in your instructor's MasteringChemistry course (provide Course ID)

Join Course

- Enter your **SUID number as your student ID**.
- Enter **MCFREEDMAN70206 as your Course ID**. *The Course ID field is not case-sensitive, so you can enter either lowercase or uppercase characters*
- Click **Save and OK** to view your MasteringChemistry course home page, welcoming you to the online course. The next time you log in, you will go directly to your home page for the course.



The screenshot shows a web form for joining a course. It has two input fields: 'Student ID:' and 'Course ID:'. Below the 'Course ID:' field, there is a red text requirement: 'REQUIRED: please enter Course ID provided by instructor.' At the bottom left of the form is a 'Save' button.

- **To view your instructor's assignments:** Click **Assignment List** on the left.
- **To view self-study resources:** Click **Study Area** on the left.

4. Some products in MasteringChemistry contain a Study Area (do not need to provide Course ID)

Upon logging in for the first time, select the title and edition that matches your textbook. Then, click **Go to Study Area**. Click **Study Area** on the left to access resources available for your textbook.

5. Go to www.masteringchemistry.com for information on...

- System Requirements
- Support

iClicker Lecture Questions

iClicker Questions will be given during class to help you to actively learn lecture material and to allow the lecture professor to assess class progress. Your iClicker will allow you to respond and post your responses to the in class iClicker questions.

FREQUENTLY ASKED QUESTIONS ABOUT iCLICKER

BASICS

Why is an iClicker required for my class?

Like many instructors, yours has decided that incorporating classroom response system technology helps foster discussion among your classmates, gives your instructor a clear sense of how the class is doing, and ultimately improves comprehension and learning. These results have been confirmed repeatedly by education studies.

How do I turn on my iClicker?

Once you remove your iClicker from its packaging, you will need to pull the clear plastic "Pull" tab from the back of the remote to activate the batteries. On the front of your iClicker you will notice there are 6 options: A, B, C, D, E, and On/Off. The On/Off button is what you press to both turn it on (resulting in a solid blue light by the "Power" indicator at the top of your iClicker) and off (removing the solid blue light).

How long will my batteries last?

New batteries supply approximately 200 hours of use. The "Low Battery" light will flash red when you need to replace your batteries. Once this light begins flashing, you have 10 hours or less of battery power remaining. Your iClicker uses 3 AAA batteries, which are inexpensive to replace. New iClicker remotes include 3 AAA batteries.

How do I change my batteries?

On the back of your iClicker is a small slot. You will need to insert a paperclip or similar device (such as the tip of a pen) to release the battery cover, allowing you to remove and replace the batteries.

What if I forget to turn off my iClicker?

iClicker remotes have two battery-saving features. As long as a remote is actively communicating with a receiver (i.e. you are using it to vote), the remote will remain on for 90 minutes after the last vote. If a remote is accidentally turned on or buttons are compressed but the remote is not communicating with a receiver (i.e. in a backpack or purse), the remote will automatically turn off after 5 minutes.

Will my iClicker remote work in other classes?

Yes, as long as your other instructors are also using iClicker software and hardware. There are other iClickers available, none of which are cross-compatible, so you will need to confirm that your other professors are also using iClicker and not another system.

Can I share my iClicker remote with my roommate/friend?

Yes, as long as you are not taking the same class at the same time.

What if I am having problems with my iClicker?

There is a standard one-year limited warranty on your iClicker. If a problem occurs during class, let your instructor know immediately. He or she may have a loaner iClicker available for you to use for the duration of the class. If your iClicker is defective, your process of returning it will depend upon how you obtained it.

Is technical support available?

Yes, there is technical support available for students. You can call our Technical Support Center toll free at 866-209-5698 or send an email to support@iclicker.com.

REGISTRATION

Do I have to register my iClicker?

You must register iClicker your iClicker for CHE 106

For other classes, not necessarily. Your instructor will likely tell you if s/he expects you to register your iClicker in one of the first few classes of the term. Some instructors opt for students to use iClicker to respond to questions during class anonymously and never require students to register.

Most instructors, though, do require you to register your iClicker to your name/student ID at some point. Often, they use your iClicker responses to assign points as a reward for participating in class. Other professors also assign points for selecting correct answers. In order to give you credit for using your iClicker during class, registration is then essential. One benefit to iClicker: you don't have to register your iClicker before being able to use it; however, you will want to be sure to register by the deadline given by your professor.

How do I register my iClicker?

For CHE 106, you must register on the iClicker Web Registration site. Important: you must use your iClicker once in class before registering. Then go to <http://www.iclicker.com> and register with your first name, last name, SU NetID as your Student ID (use your SU log in user name, NOT your SUID number) and your iClicker ID

Where do I find my iClicker ID?

Your iClicker ID (or remote ID) is a series of 8 numbers and letters located the back of the remote, just below the iClicker instructions.

Are there zeros or the letter O in my iClicker ID?

Your iClicker ID may contain the number zero, but will not contain the letter O.

Where do I enter my school name during online registration?

You do not need to enter your school during online registration. You only need to enter your first and last name, your student ID (see above), and your iClicker remote ID, located on the white sticker on the back of your remote.

How can I tell if I have successfully registered online?

After you have successfully registered via the Web site, you will receive the following confirmation message: "Thanks! Your iClicker has been registered with the system." You will not, however, receive a confirmation email, as we don't like to collect your email address as it could violate student privacy laws.

I use my iClicker remote for multiple classes with different professors. Do I have to register online for each individual class?

No. You only need to register once online for your registration information to apply to all of the classes in which you are using iClicker. **Exception:** the one point of possible confusion is if your instructors are using different student IDs to record your grades. Make sure you consult with your professors about the proper student ID required when you register online.

What is the cost of registering my iClicker?

There is no cost. After purchasing your iClicker, it is yours to use in as many classes as required without any additional costs or recurring registration fees.

I registered with incorrect information when registering online. How can I fix it?

If you used incorrect information during the Web site registration process, please register again with the correct information.

I registered online but my professor says I have not registered yet.

This could be caused by two possible factors.

1. Have you voted in class with your remote yet? If you have not voted with your iClicker remote, then your professor's gradebook will *not* recognize your registration.
2. You may have entered the incorrect iClicker remote ID or the wrong student ID. Re-register online using the correct information and the incorrect registration will simply be ignored.

How do I un-register my remote?

There is no need to un-register your remote, even if you will no longer be using it. Registration does not alter the iClicker remote in any way, and the registration database is cleared automatically at the end of each semester.

RECEIVING CREDIT FOR RESPONSES

Could my responses be confused with others?

No. Because your remote ID is unique. Once registered, the remote will only be tied to you. Note, that even though you can share your iClicker remote with a roommate or friend, you cannot share it with another student in the same class.

Do I get credit for my responses?

This is a decision your instructor will make. S/he has the option to assign points for participation or attendance, to assign points for correct responses, or to simply use your responses for attendance purposes. Your class syllabus or course web site will generally include the grading policy for the course, including the policies for iClicker questions.

How do I know if my vote has been received?

At the top of your iClicker are three light indicators (Power, Low Battery, and Vote Status). The "Vote Status" light will flash green, indicating your vote has been received and confirmed. A red flashing light indicates that your vote was not received and you will need to vote again. Your iClicker will also flash red if you vote when your instructor has not begun polling or has stopped polling.

Can I change my response?

You are able to change your response as long as the polling remains active. As long as your professor is accepting votes, **iClicker will record your last response.** Once your instructor stops polling, any vote change will not be recorded (and your "Status" light will flash red three times).