

KEEP THIS SYLLABUS FOR FUTURE REFERENCE

CHEMISTRY 104

Lecture 2, Spring 2015

General Chemistry:	5 credit hours
Lecture Section 2:	11:00 a.m. MWF, 1351 Chemistry
Lecturer:	Professor Kyoung-Shin Choi
Room and Phone Number:	3223 Chemistry, 262-5859
E-mail:	chem104-choi@chem.wisc.edu (Emails sent only to this address will be answered.)
Office Hour:	4:00-4:30 p.m. Tuesday and Friday
Learn@UW:	http://learnuw.wisc.edu/

Chemistry 104 is the second semester course in the two-semester sequence. Chemistry 103 and 104, providing a general survey of chemical principles and facts, are prerequisites for advanced courses such as Organic Chemistry (341 or 343) and Analytical Chemistry (327 or 329).

The prerequisite for Chemistry 104 is Chemistry 103 and it is assumed that you took this course last semester. If your situation is different you may need to put in extra effort, at the beginning of the semester, to gain the necessary background.

REQUIRED MATERIALS

Textbook: Chemistry the Central Science, by Brown, Lemay, Bursten, Murphy and Woodward, 12th edition; available at local bookstores

Lab Book: Chemistry 104 Laboratory Manual, Spring 2013, Department of Chemistry, UW- Madison, sold (for cash only!) in the Chemistry Building by Alpha Chi Sigma during the first two weeks of class.

Lab Notebook: 100 page carbonless lab notebook available from Alpha Chi Sigma or at local bookstores.

Safety Goggles: Industrial quality eye protection is required at all times when you are in the lab. Safety goggles that fit over regular glasses can be purchased at local bookstores. Contact lenses should not be worn in the laboratory because fumes or splashes may be caught between them and your eye. Safety rules are posted on your laboratory door.

An electronic RF “clicker”: The lectures will make use of student “voting” on concept tests, surveys, and other questions. Some questions will be graded and used to give extra credits (1 point x 10-20 questions = 10-20 points). You will need to buy an I-Clicker radio-frequency clicker and bring it to every lecture. These can be purchased at the University Bookstore. **For technical questions (registration, clicker malfunction), contact: genchemclickers@chem.wisc.edu**

Calculator: An inexpensive calculator having capabilities for square roots, logarithms and exponentiation (antilogarithms), and exponential (scientific) notation operations is required. The calculator will be used

on homework assignments, exams, and in the lab.

A Mastering Chemistry account for access to on-line problem sets: This is bundled with your new textbook for no additional charge. Instructions for registering are given on the course homepage on Learn@UW. If you purchased a used textbook or received one from another student, you must purchase your own access to the Mastering Chemistry system online at: <http://www.masteringchemistry.com>. If you already registered with Mastering Chemistry for Chemistry 103, you need to enroll in this course to gain access to the homework. **For technical questions, contact: chem104hw@chem.wisc.edu.**

USB Flash Drive: A USB flash drive that will hold at least 2 GB is required for lab data collection.

LECTURE AND DISCUSSION

Lecture. Lectures organize the material, outline goals, cover the basic principles of each topic and present illustrations and demonstrations. The lecture is not intended to describe or explain everything you will learn in the course; rather, it will indicate important topics to study and will give you an opportunity to think about these topics and see if you understand them. My lecture notes will be posted online at the course homepage by midnight on Sunday for the following week. You can print out the notes and bring them to class to take additional notes during lecture.

Demonstrations. The UW-Madison Chemistry Department has a longstanding tradition of using lecture demonstrations to help students understand chemistry. When a demonstration is done in class, observe what happens and make certain that you understand the principles the demonstration is designed to illustrate. If you do not, ask questions, either in lecture or in your discussion section. All demonstrations are important and questions about demonstrations may appear on exams.

Discussion Section. A group of about 22 students constitutes a discussion and laboratory section supervised by a teaching assistant. Discussion sections are for discussion, review, and problem solving relevant to recent lectures, and preparation and review of laboratory experiments. Be prepared when you come to the discussion class. You should work out the homework problems for a given week, and you should expect to be called upon by your TA to discuss solutions to these problems. Ask specific questions of your TA and of other students. Make sure you understand the questions asked and the answers given. If you don't understand, then ask for a further explanation. Do not expect your TA to lecture, but rather to lead discussion and encourage interaction among all students present.

MasteringChemistry Online Problem Sets. Each week you will have an online homework assignment in *MasteringChemistry*. These assignments are available only in *MasteringChemistry*. Problem sets test whether you understand the major concepts in each chapter and whether you can apply your understanding to solving problems. Online homework must be completed by 11:55 PM on the due date. In order to for you to view the online homework, you must be registered for this class in *MasteringChemistry*. Instructions for registering with *MasteringChemistry* are given on the course homepage on Learn@UW: to access click the *MasteringChemistry* button. All technical questions regarding the "Mastering Chemistry" homework should be sent to chem104hw@chem.wisc.edu.

LABORATORY

Laboratory work is important to an understanding and appreciation of chemistry, and for those of us who love chemistry, lab work is really fun. The laboratory exercises are designed to illustrate the principles

described in class, and the exams will include questions based upon the laboratory material. **Note that you must successfully complete ALL laboratory assignments and achieve an overall lab score of at least a D in order to receive a passing grade in Chem 104.**

During the lab period you will carry out the experiment, take notes, and complete your data analysis. You will be evaluated on your pre-lab preparation, your in-lab experimental technique and data analysis, and on your ability to observe chemical phenomena and record your observations in your notebook. Each laboratory experiment will have its own criteria for grading and your TA will apply those criteria to evaluating your work.

Safety in the Laboratory and Safety Quiz. Read the ‘For Your Safety’ section in the lab manual before you come to lab. It describes safety information specific to that experiment. Safety goggles are required for every experiment. No contact lenses! No sandals! Wear reasonable clothing! Failure to wear proper protective gear in the laboratory is grounds for dismissal from lab, with no provision to make up the work you miss. In Learn@UW page, under “Quizzes”, make sure to take the Lab Safety Quiz. This Quiz must be completed by Jan 25 (Sun), 11:55 pm.

Attendance. Unless you are formally excused, you must attend all laboratory sessions. There are no procedures to make-up laboratories you miss and a grade of zero will be recorded for unexcused absences. If you have an excuse for missing lab notify your TA, as soon as possible, before the lab period.

Reports. Lab reports are due by the end of the lab session unless notified otherwise by our TA. Points will be deducted if reports are turned in late. (Your TA will explain the rule.)

RESOURCES

Chemistry 104 Lecture 2 Learn@UW Homepage. Resource material for this lecture section is available at Learn@UW. The homepage for my lecture section includes: course syllabus, overheads used for each lecture and copies of handouts. Consult the website for instructions and tips to help you use Learn@UW at learnuw.wisc.edu

TA Office Hours: TAs for this course will have office hours. You can find their schedules in Learn@UW page and ask them any questions related to the lecture/homework/lab.

Chemistry Resource Facilities: Computers are available for use in room 1375 Chemistry. Room 1371 is a study room for chemistry students.

Undergraduate Chemistry Office: **The staff in the Undergraduate Chemistry Office, room 1328 (Tel: 263-2424), can assist you with enrollment, advising, and many other things.** You can also use the following webpage for any enrollment questions: <http://chem.wisc.edu/content/enrollment-inquiries>.

Study Groups. You are strongly encouraged to collaborate with other students on homework assignments and laboratory discussion questions. For many students, study groups are very helpful. Unless informed to the contrary, you must turn in your own write-up (not a copy of the study group's work) for all of your assignments.

Students with Disabilities. Students with disabilities should contact Professor Choi as soon as possible at the beginning of the semester to arrange accommodations. This applies to lecture, discussion, and

laboratory, and to special accommodations for exams.

Study Skills. Help with self-assessment, test anxiety, problem solving, time scheduling, note taking, exam preparation/taking, reading efficiency, memory, concentration, and procrastination is available through a one-credit course titled Educational Effectiveness in the School of Education, Department of Counseling Psychology. Interested students should contact the department at 262-0461 to speak with an instructor. Individual counseling is also available at University Counseling and Consultation Services. For more information, call 262-1744 or stop by 115 N. Orchard Street.

GRADES

Exams. There will be three in-class exams and a two-hour final exam. No make-up exams will be given. The final exam will cover topics from the entire semester, but it will be weighted more heavily toward material covered in the last segment of the course. The location of each exam will be announced later. The exam schedule is:

Exam I	Wednesday, February 18	11:00 - 11:50 a.m.
Exam II	Wednesday, March 18	11:00 - 11:50 a.m.
Exam III	Wednesday, April 15	11:00 - 11:50 a.m.
Final Exam	Thursday, May 14	5:05 - 7:05 p.m.

Grades. Your grade will be based on a maximum of 1000 points divided as follows:

Exams I, II, and III (100 pts. Each)	300 points
Mastering Chemistry Problem Sets (best 9 out of 10 x 20 points)	180 points
Safety and Academic Honesty Quiz (2 x 5 points)	10 points
Laboratory (8 standard labs x 20 points)* (2 formal lab reports x 40 points)*	160 points 80 points
Final Exam	250 points
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Total:	980 points

* Eight of the lab exercises will be worth 20 points. Two lab exercises will require formal lab reports and will be worth 40 points.

Extra Credits. Some I-clicker questions, which will be announced during lectures, will be graded and used to give extra credits (**1 point x 10-20 questions = 10-20 points**).

Letter grades. Final grades will be based upon the absolute scale shown below. If you score the number of points indicated, then you will receive the letter grade indicated, regardless of how many other students achieve the same grade. There is no curve. You are competing against this scale, not against other students, and it is to your benefit to help each other.

A	880 - 980 points	(90%)
AB	850 - 879 points	(87%)
B	810 - 849 points	(83%)
BC	760 - 809 points	(78%)

C	670 - 759 points	(68%)
D	540 - 669 points	(55%)
F	<540	(<55%)

This scale may be adjusted downward. It will never be adjusted upward.

Review Your Grades. Hour exam grades will be entered electronically in Learn@UW so you can check your records for accuracy. Midway through the semester total points so far in problem sets and lab will be entered. The complete grade totals will be entered at the end of the semester. To maintain confidentiality, you will be required to enter your ID number.

Academic Honesty and Academic Honesty Quiz. You will be writing lab reports and answering problem sets in this course. It is not OK to copy and paste others' work or material from the Web into these reports or answers. The UW-Madison Writing Center has a good description of how to paraphrase or quote material that you did not write yourself, available at <http://writing.wisc.edu/Handbook/QuotingSources.html>. The Chemistry 104 staffs view academic dishonesty as a serious offense. Copying results or answers to questions, homework, or exams from someone else and passing them off as your own work is academic misconduct and will not be tolerated. Such misconduct is grounds for a failing grade in this course. During the first week of class, make sure to take the Academic Honesty Quiz, found on Learn@UW under "Quizzes".

Classroom Etiquette

Cell Phone and Computer Policy. Please turn your cell phone and computer off for the duration of the class or lab period. In a situation where you must be able to answer your cell phone, please set it to vibrate and sit where you will not disturb others when leaving the room.

Noises. Any noise you make during the class can affect the classroom environment. Be considerate to your classmates and minimize any noise that can be destructive for creating pleasant learning environment.

What To Do If You Are Sick, Or Otherwise Unable To Attend An Exam or Lab

If you are unable to attend a specific lab session because of an unavoidable and excusable schedule conflict, for example a religious observance, contact your TA as soon as possible to reschedule. Make up lab times are only during the week when the entire class is doing a lab exercise, so planning ahead is important. (There is no guarantee that you will be able to reschedule a lab). If you find that you are unable to attend lab because you are ill, contact your TA before the lab session you will miss. He or she will discuss your situation with Prof. Choi and decide what to do. If unavoidable circumstances preclude you taking an exam, please contact your professor as soon as possible before the scheduled exam time.