

## Chemistry 211 - Fall 2006

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Office Hours: Monday 2-5 or by appointment

**Teaching Assistant.** Your teaching assistant will be your primary source of information for this course. You will consult your teaching assistant first with any questions regarding the laboratory. Your teaching assistant will provide you with his or her office hours and contact information.

**Lab manual.** Modular Laboratory Program in Chemistry from Chemical Education Resources

**Course Description.** Chem 211 is an introductory laboratory course for science and engineering majors usually taken concurrently with Chem 210. The objectives for this course are: 1) to develop an understanding and appreciation for the fundamental concepts in chemistry, 2) to develop an understanding and appreciation for how these fundamental concepts in chemistry can be applied to every day life and to current problems of relevance in the world, 3) to develop problem-solving skills and to practice these skills, and 4) to develop an understanding of what professional chemists do.

**Course Policies.** The following policies are in effect. Any failure to abide by these policies can result from your dismissal from the laboratory session and a grade of zero for that particular laboratory.

While in lab you will wear goggles or safety glasses while the experiment is being conducted and will obey all safety rules that are reviewed during the first laboratory session. Goggles (and one kind of safety glasses) are provided by the department. Other kinds of safety glasses that you might wish to purchase are available in the storeroom.

Teaching assistants will be treated with respect at all times.

Your grade in lab will be determined as follows:

pre-lab assignment (25%). Pre-lab assignments will be turned in to your teaching assistant immediately upon entering lab. Academic dishonesty in the form of copying the work of others is unacceptable.

pre-lab quiz (25%). The first 15 minutes of class will be dedicated to taking the pre-lab quiz. The quizzes will be given as soon as students enter the laboratory. At 15 minutes after the designated start-time for class, the quizzes will be collected. No additional quizzes will be given or collected after that time. The quizzes will be written by the instructor. Helpful hints for preparing for the quizzes will be provided each week on the course web-site.

post-lab report (50%). Post-lab reports and answers to questions are to be turned in to your assistant before leaving lab for the day. The only exception to this is if the lab extends to the end of the period and there is insufficient time to complete the report. Your assistant will then tell you where and when to turn in the report. Academic dishonesty in the form of copying the work of others is unacceptable. This policy applies even though you may work on the experiment in groups. If you arrive late for laboratory, you will not be able to join a group already doing the experiment. You will be required to do all of the laboratory work by yourself.

Your teaching assistant will grade the pre-lab assignments, the post-lab reports, and the quizzes. These assignments will be graded according to guidelines provided by the instructor. The course grade will be assigned according to the following guideline: A, 90%-100%; B, 80%-89%; C, 70%-79%; D, 60%-69%; F, 0-59%. The lowest of all laboratory scores will be dropped before determining your grade. However, if you miss a laboratory, the grade will not be dropped unless you provide a written note to the teaching assistant and instructor explaining the reason for your absence and the reason why you were unable to make up the missed experiment.

Making up a missed lab is not an option for you unless you provide a written excuse for missing the laboratory and make arrangements to make up the missed laboratory during one of the other laboratory sections doing the same laboratory during that week. Arrangements for this must be made in advance with the instructor of the course and the teaching assistants involved.

What you get out of the laboratory experience depends entirely upon what you put into it. Arriving to laboratory well-prepared will enable you to have a good educational experience. Arriving to laboratory unprepared will likely result in a meaningless exercise in the laboratory. Each week information about the laboratory will be posted on the website. Here, you will find specific details about what you will be expected to know when you come to the laboratory. If you have any questions about these concepts, you should arrange to meet with your teaching assistant prior to the day that you have laboratory to obtain assistance.

For some of the laboratories, you will not be allowed to bring your laboratory manual to the laboratory with you. Laboratory guidelines will be provided and you must prepare sufficiently so that you can do the experiment without referring to the laboratory manual.

Other handouts and activities may be required that are not provided in the laboratory manual. Your teaching assistant will distribute these materials when necessary and you will be responsible for completing them as directed.

Some of the experiments will require that you use the computer lab to graph data and to print the data. You will need a copy card (available in the student center) to print. The cost for making copies over the course of the semester is minimal.

If you have any conflicts with your teaching assistant that you can not resolve, you should contact Dr. Vermeulen and a meeting will be set up with both the instructor and the teaching assistant in order to resolve the conflict.

If you drop Chem 210 on or before the designated drop date, you must also drop Chem 201, since many concepts needed for 211 are covered in 210. If you drop the course, you must check

out of your locker. Do not wait until the end of the semester, but check out the week you drop. Failure to check out will result in a \$20 charge.

**Schedule of Laboratory Experiments for Chemistry 211  
Fall 2006**

<b>Week Beginning</b>	<b>Experiment</b>
August 21	Locker Assignment/Check-out
August 28	Practical Exam - Review of Basic Concepts
September 4	Holiday. Lab will not meet this week.
September 11	#429 Solvolysis
September 18	#30 Decay of Crystal Violet
September 25	#441 Equilibrium Constant
October 2	#453 $K_a$ of an Acid
October 9	#443 Buffers
October 16	#487 Common Ion Effect
October 23	#462 Qualitative Analysis
October 30	#462 Qualitative Analysis (continued)
November 6	#224 Electrolysis
November 13	Synthesis of Ni Compounds
November 20	Holiday. Lab will not meet
November 27	Synthesis of Ni Compounds (continued)
December 4	Final Exam / Check-in