COURSE SYLLABUS **Fall 2006**
Chemistry 208
Introduction to Chemical Analysis II

Instructor: Dr. Aleeta M. Powe
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Office Hrs: Wed. 12:00 noon – 2:00 P.M. and by appointment

Text: (1) *Chemistry: The Molecular Nature of Matter and Change*
(2) *Introduction to Chemical Analysis II Laboratory Manual*

Introduction:

Analytical Chemistry is the branch of science that deals with methods, techniques and instrumentation used to identify and quantify chemical substances. Analytical chemists develop methods of analysis, use and design instrumentation for conducting analyses and determine the significance of results obtained from analyses.

Course Description and Objectives:

Chem 208 is an introductory course in analytical chemistry and the second in a series of four laboratory courses. Each of the four courses consists of a one-hour lecture and a three-hour laboratory per week. The lecture is presented by the course instructor, while graduate teaching assistants supervise the laboratory sessions. The purpose of the lecture is to introduce important concepts and techniques necessary for successful understanding and completion of experiments performed in the laboratory. Since, a final exam will include material covered in the lectures; **lecture attendance is expected and highly advisable.**

A schedule of laboratory experiments is included in the syllabus. Half of the course is devoted to *quantitative analysis* using titrations and half is devoted to *quantitative/qualitative analysis* using spectroscopy. You must read each experimental procedure **BEFORE your lab session.** A pre-lab must be prepared and given to your laboratory supervisor (graduate teaching assistant) prior to beginning the experiment. Make sure you (1) know the purpose of the experiment; (2) understand the concepts and procedures to be conducted and (3) are aware of any safety concerns and special waste disposal requirements.

Safety is of utmost importance in the laboratory. You must be familiar with and abide by all safety procedures posted in the lab room and detailed in the laboratory manual. We have done our best to minimize potential dangers in the laboratory; though, anything, when used improperly can become dangerous. A serious safety violation can result in dismissal from the lab and a zero for the experiment. If you are unsure about any aspect of an experiment, discuss it with your teaching assistant first.

Grades:

Your grade will be based upon your performance on weekly experiments and on the final exam. The experiments will contribute around 80% of the grade and the final exam will contribute about 20%.

Lab Reports	–	750 points	**Grading Scale:**	855 to 950 points	A
Lecture Exam	–	200 points		720 to 854 points	B
				665 to 719 points	C
				570 to 664 points	D
				569 or less	F

Electronic Mail (e-mail, email):

Since email is the most common way of correspondence, here are steadfast rules to apply in **ALL** email communication to Dr. Powe:

1. Include an informative subject line.
2. Begin the letter with an appropriate greeting (i.e. Dear Dr. Powe, Hi Professor Powe);
3. Include a clear body. Using correct grammar and spelling, be clear about your question or concern. Always spellcheck and re-read the email for clarity before hitting 'Send'. If your words are important enough to write, then they are important enough to write properly. Do not type the entire letter in all uppercase!
4. End your letter with your name and class section (signature).

Any email which does not include at least these four aspects will **NOT** receive my attention or a reply.

Lab make-up Policy:

The laboratory experiment with the lowest grade can be (but does not have to be) made up during the last lab period. If you were absent in **one** of the lab periods, you may make up that experiment only if your absence was justified. You need the approval of the Instructor before making up any experiment.

Final Exam make-up Policy:

Only in **very** extenuating circumstances will a make-up final exam be administered (forgetting the date of the final or oversleeping is NOT acceptable). This will be at the discretion of the instructor and on an individual basis. Contact the instructor well in advance (2 weeks) of the final.

Chem 208 Laboratory Schedule

Laboratory Schedule:

Week:	**Experiment #:**
10/16	1 – Determination of Aspirin Using Back Titration
10/23	2 – Determination of Water Hardness
10/30	3 – Redox Titration
11/06	4 – Atomic Emission
11/13	5 – Determination of Fe in Vitamins (Part 1)
11/20	No Labs
11/27	5 – Determination of Fe in Vitamins (Part II) **Final Exam Review**; Make-Up Labs Check-Out
12/04	Final Exam