

CHEM 109-51

GENERAL CHEMISTRY LABORATORY I

Fall 2009

6:00 - 6:50 pm, Tu, CNSB 243 (Prelab)

7:00 - 9:00 pm, Tu, CNSB 230 (Lab)

INSTRUCTOR INFORMATION

Instructor:	Dr. F. H. Watson
Office:	CNSB 227
Office Hours:	12 - 2 pm and 5 - 7 pm M 9 am - 2 pm and 5 - 6 pm Tu
Telephone:	342-1933
email:	watson@ulm.edu
webpage:	www.ulm.edu/~watson

COURSE

Content: A laboratory course to accompany CHEM 107.

Goals/

Objectives: Mastery of selected laboratory methods that illustrate principles introduced in General Chemistry I (CHEM 107).

REQUIREMENTS

Prerequisite: Credit or registration in CHEM 107.

Text: *Chemistry 109 Lab Manual* (Department of Chemistry, ULM, version 1.4, 2008).
Online manual at www.ulm.edu/chemistry/courses/manuals/labmanuals.html.

Material

Covered: Lab Sessions 1-12. (Lab Session 13 is the Make-up laboratory.)

Attendance: It is your responsibility to attend and to be punctual. *Do not come late. Any laboratory missed due to an excused absence must be made up during another assigned laboratory period or during the scheduled Make-up laboratory.* To obtain permission to make up a laboratory, you must verify with the course instructor whether or not an absence is excused according to the ULM *Student Policy Manual* (www.ulm.edu/studentpolicy). (This policy manual also provides information concerning academic integrity and student services.)

EVALUATION

Laboratories: There are 13 laboratories, including the Syllabus/Safety Lecture/Check-in laboratory and the Final Exam/Check-out laboratory. After the Syllabus/Safety Lecture/Check-in laboratory, each of the next 11 laboratories is worth 15 pts, apportioned between the prelab quiz (5 pts) and the laboratory exercise (10 pts). (In order to receive full marks on a laboratory exercise that results in a numerical answer, each student must present an experimental result that is within $\pm 5\%$ of the expected answer.) The Final Exam/Check-out laboratory includes a comprehensive (excluding Lab Session 13) final quiz (35 pts). (If a student misses a prelab quiz because of an *excused* absence, this work may be made up -- with permission of the instructor -- by taking a comprehensive (excluding Lab Session 13) make-up quiz that is given during the Make-up laboratory on December 1.)

Grading:

prelab quizzes (11, 5pts each)	55 pts	A	180 - 200 pts
laboratory exercises (11, 10 pts each)	110 pts	B	160 - 179
final quiz	<u>35 pts</u>	C	140 - 159
COURSE TOTAL	200 pts	D	120 - 139
		F	< 120

Mid-term grades will be posted on-line for students to view via Arrow. Mid-term grades indicate a student's status at mid-semester only and do not indicate the final performance outcome of a student.

SCHEDULE OF LABORATORIES

(Each prelab quiz covers the laboratory exercise material scheduled for *that* day.)

Aug 25		Syllabus/Safety Lecture/Check-in
Sep 1	quiz	Introductory Exercises
Sep 8	quiz	Oxygen
Sep 15	quiz	Preparation of Sodium Chloride
Sep 22	quiz	Law of Definite Proportions/Hydrates
Sep 29	quiz	Hydrogen and the Activity Series of Metals
Oct 6	quiz	Acid-Base Titration
Oct 13	quiz	Antacids
Oct 27	quiz	Calorimetry, Heat of Reaction
Nov 3	quiz	Charles' Law
Nov 10	quiz	Determination of the Molar Mass of Oxygen
Nov 17	quiz	Valence, the Combining Capacity of Elements and Molecules
Dec 1		Final Exam/Check-out
		Make-up quiz (comprehensive)/
		Make-up lab (Copper Analysis by Complexometric Titration)

NOTE: You must wear eye protection at all times while in the laboratory. Hats, shorts, skirts, bare midriffs and open-toed shoes are not allowed in the laboratory. Cell phones are not permitted. Failure to comply with these rules will result in your being ejected from the laboratory.

DEPARTMENTAL DROP POLICY (www.ulm.edu/chemistry/courses/drop_policy.html) For students who are currently enrolled in CHEM 107 (and have not previously passed CHEM 107), if you drop CHEM 107 you cannot remain in CHEM 109 without permission. The final day to drop a class is November 2.