CHEM 109-02

GENERAL CHEMISTRY LABORATORY I

Spring 2010

2:00 - 2:50 pm, M, CNSB 343 (Prelab)
3:00 - 5:00 pm, M, CNSB 233 (Lab)

INSTRUCTOR INFORMATION

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<tr>
<th>Instructor:</th>
<th>Dr. G. L. Findley</th>
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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.


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**

Labs: 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 ± 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 May 3.)

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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.)

Jan 25  Syllabus/Safety Lecture/Check-in
Feb 1  quiz  Introductory Exercises
Feb 8  quiz  Oxygen
Feb 22  quiz  Preparation of Sodium Chloride
Mar 1  quiz  Law of Definite Proportions/Hydrates
Mar 8  quiz  Hydrogen and the Activity Series of Metals
Mar 15  quiz  Acid-Base Titration
Mar 22  quiz  Antacids
Mar 29  quiz  Calorimetry, Heat of Reaction
Apr 12  quiz  Charles’ Law
Apr 19  quiz  Determination of the Molar Mass of Oxygen
Apr 26  quiz  Valence, the Combining Capacity of Elements and Molecules
May 3  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 March 26.
CHEM 109-03

GENERAL CHEMISTRY LABORATORY I

Spring 2010

2:00 - 2:50 pm, W, CNSB 144 (Prelab)
3:00 - 5:00 pm, W, CNSB 230 (Lab)

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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.


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 ± 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 May 5.)

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SCHEDULE OF LABORATORIES
(Each prelab quiz covers the laboratory exercise material scheduled for that day.)

Jan 27 Syllabus/Safety Lecture/Check-in
Feb 3 quiz Introductory Exercises
Feb 10 quiz Oxygen
Feb 24 quiz Preparation of Sodium Chloride
Mar 3 quiz Law of Definite Proportions/Hydrates
Mar 10 quiz Hydrogen and the Activity Series of Metals
Mar 17 quiz Acid-Base Titration
Mar 24 quiz Antacids
Mar 31 quiz Calorimetry, Heat of Reaction
Apr 14 quiz Charles’ Law
Apr 21 quiz Determination of the Molar Mass of Oxygen
Apr 28 quiz Valence, the Combining Capacity of Elements and Molecules
May 5 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.

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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.


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

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SCHEDULE OF LABORATORIES
(Each prelab quiz covers the laboratory exercise material scheduled for that day.)

January
Jan  28 Syllabus/Safety Lecture/Check-in
Feb  4 quiz Introductory Exercises
Feb 11 quiz Oxygen
Feb 25 quiz Preparation of Sodium Chloride
March
Mar  4 quiz Law of Definite Proportions/Hydrates
Mar 11 quiz Hydrogen and the Activity Series of Metals
Mar 18 quiz Acid-Base Titration
Mar 25 quiz Antacids
April
Apr  1 quiz Calorimetry, Heat of Reaction
Apr 15 quiz Charles’ Law
Apr 22 quiz Determination of the Molar Mass of Oxygen
Apr 29 quiz Valence, the Combining Capacity of Elements and Molecules
May  6 Final Exam/Check-out
Make-up quiz (comprehensive)/Make-up lab (Copper Analysis by Complexometric Titration)

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Feb 4 quiz Introductory Exercises
Feb 18 quiz Oxygen
Feb 25 quiz Preparation of Sodium Chloride
Mar 4 quiz Law of Definite Proportions/Hydrates
Mar 11 quiz Hydrogen and the Activity Series of Metals
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