

Chemistry 101L/103L Syllabus, Fall 2011

Discussion Instructor: J. C. Molloy **Info:** ISC Rm 2031, ext. 12546; jcmolloy@wm.edu

Laboratory Instructors: Bebout, Bagdassarian, Landino, Molloy, Young

Lab T.A. _____

Laboratory Coordinators: Ms. Shieh (ext. 12678); Ms. Hopkins (ext. 12543); ISC Rm 1037

Chem 101L/101 are cognate lab/lecture courses.

Chem 103L/103 are cognate lab/lecture courses.

Objectives: Laboratory techniques in chemistry; applications of chemical fundamentals

Safety: Everyone is responsible for safe practices in the laboratory. Details are in this laboratory manual. Students must wear approved goggles in the laboratory.

Grading: Experiments: 55% Quizzes: 8% Midterm: 12% Final: 25%

Course Structure

A pre-lab demonstration and discussion is held in Millington 150 on Mondays and Tuesdays preceding the experiment. You must attend the pre-lab section and the lab section as you registered (no section-hopping).

Schedule of Discussions and Experiments

Discussion date	Experiment date	Exp. #	Experiment
Aug. 29-30	Aug 31, Sept. 1	1	Measurements & Calculations; also Appendix A
Sept. 5-6	Sept. 7-8	2	Estimation of Avogadro's Number
Sept. 12-13	Sept. 14-15	3	Mass Relationships in Chemical Reactions
Sept. 19-20	Sept. 21-22	4	Neutralization Titrations
Sept. 26-27	Sept. 28-29	5	Redox Titrations—Determination of Hydrogen Peroxide
Oct. 3-4	Oct. 5-6	6	Some Properties of Gases
Oct. 3-4	Oct. 12-13	7	Calibration of a Pipet; Mid-Term (follows experiment)
Oct. 17-18	Oct. 19-20	8	The Molar Volume of Oxygen
Oct. 24-25	Oct. 26-27	9	Enthalpy Measurements and Hess' Law
Oct. 31, Nov. 1	Nov. 2-3	10	Absorption Spectrophotometry
Nov. 7-8✗	Nov. 9-10✗	11	Chemical Kinetics: The Reaction of Iodide with Peroxydisulfate✗
Nov. 14-15 ✗	Nov. 16-17✗	12	Photometric Determination of an Equilibrium Constant✗

✗ not required for Chem 101

There are **no makeup labs**; labs may be made up during the week offered on a space available basis, per the excused absence policy; see Ms. Shieh.

103L Final Exam	The final examination will be administered during the last laboratory period; Wednesday, Nov. 30 or Thursday, Dec. 1 .
101L Final Exam	The final examination will be administered during the last laboratory period; Wednesday, Nov. 16 or Thursday, Nov. 17 .
Breakage	There is no deposit against possible breakage. However, a student must pay for any equipment broken during the semester (due last day of lab) in order to obtain a grade.