

Chem 125A General Chemistry Lab Syllabus

Department: Chemistry and Environmental Science

Tiernan Hall, Room 151

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Instructor: Dr. Xinbo Lau

Term: Fall 2017

Email: xc37@njit.edu

Time: Monday 1:00-3:55PM

Location: Tiernan 207

Text book:

Laboratory Manual Chemistry: A Molecular Approach 4th Edition (3rd Edition also OK)
by Nivaldo J. Tro (Author), John J. Vincent (Author), Erica J. Livingston (Author).

ISBN-13: 978-0134066264, ISBN-10: 013406626X

(Keep the book for Chem 126A if you are going to take it)

Requirements:

General Chemistry Lab I is a laboratory course; it is designed to be taken currently with [CHEM 125](#) or [CHEM 121](#). Instructions are in the lab manual and concepts are from the text and lecture of the [CHEM 125/121](#) courses. The experiments are designed to provide undergraduate students with practical experience and train students with laboratory techniques/equipment common to chemistry laboratories.

Evaluation:

Attendance is mandatory. You can have **no more than 2 makeups** at the end of the semester. Absence due to documented verifiable illness or emergency will be considered. However, missing 3 labs for *any* reason will result in automatic failure for this part of the course.

Grading

Attendance & Performance: 15%

Lab Report: 85%

Week 1, 09/11	Check-in and safety
Week 2, 09/18	Laboratory Basics: Accuracy and Precision (Lab 1)
Week 3, 09/25	Density of materials
Week 4, 10/02	Conservation of Mass and Reaction Types: Copper Recovery Cycle (Lab 4)
Week 5, 10/09	Hydrates (Lab 6)
Week 6, 10/16	Gas Laws (Lab 7)
Week 7, 10/23	Styrofoam Cup Calorimetry: Atomic Weights (Lab 8)
Week 8, 10/30	Chemiluminescence: Glow Stick in a Beaker (Lab 9)
Week 9, 11/06	Reactivity of Group 1 Metals (Lab 11)
Week 10, 11/13	Flame Tests: Flames and Smoke Bombs (Lab 12)
Week 11, 11/20	Paper Chromatography
Week 12, 11/27	Sublimation (Lab 16)
Week 13	Make-ups
Week 14	Make-ups

- **Lab reports are due at the end of each lab.**