

Dr. Rajaseelan
CAPUTO-213; Ext. 7985
Office Hours: M: 11am -12:50pm; T: 12se

CHEM 112

Course Syllabus & Class Schedule

Spring 2025

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COURSE SCHEDULE

<u>Chapter</u>	<u>Topics</u>
12	Chemical Kinetics
13	Chemical Equilibrium
EXAM I	Chapters 12, 13.
14	Acid-Bases Equilibria/Buffers/Acid-base Titrations.
EXAM II	Chapter 14
15	Solubility and Complex Ion-1US

January 21 – laboratory safety. Check into lockers.

January 28 - Lab 1: Kinetics Part A. (Exp. 15)

February 4 – Kinetics Part B. (Expt.15)

February 11 – Lab-2: Le Chatelier's Principle in Equilibrium (Expt.14)

February 18 – Lab 3: Equilibrium Constant using UV-VIS (hand out)

February 25 – Lab 4: Qualitative analysis, Unknown I. (33 -35).

March 4 – Qualitative analysis, Unknown I continued (Exp. 33-35)

March 11 – University holiday. No labs this week.

March 18 –Lab 5: Titration Curve and K_a of a weak acid (Expt.19)

March 25 – Lab 6: Qualitative analysis, Unknown II (Expt.36-37)

April 1 – Qualitative analysis, Unknown II, continued (Expt.36-37)

April 8– Lab 7: Penny's worth of chemistry (Exp. 28)

April 15 – Lab 8: Electrolysis (Exp. 24)

April 22 – Lab 9: Qualitative analysis, Unknown III (Exp. 38)

April 29 – Complete Qualitative analysis, Unknown III and Checkout

COURSE POLICIES

1. There will be lecture quizzes given every Wednesday during class time.
2. Please see the lab syllabus/policies/grading in the syllabus.
3. All students will take the examinations and quizzes as schedule. Other than health problems (that require a written, signed excuse from a doctor), excused absences will only be considered before(b)5(e)-5(c)3(on)-7(si)11(d)-4(er)-2(e)8(d)-4()] TJETQq0.000000.000rproblems

LAB POLICIES

I. LABORATORY NOTEBOOK

Permanently bound notebook (spiral or ring binders are not acceptable). Bound notebooks are available in the campus bookstore, on-line, or at retail stores.

II. SUPPLEMENTAL MATERIAL

Handouts will be posted on your CHEM 111 lecture D2L course. You must print them out and read them before lab. Calculator with root function, logs, and antilogs will be useful for lab exercises. Safety goggles and close-toed shoes.

III. LAB OBJECTIVES

- 1) To provide the student with an empirical insight into the principles of chemistry.
- 2) To develop an ability in the student to learn and work with a team of peers.
- 3) To develop in the student an appreciation for safety and environmental sensitivity.
- 4) To illustrate, in a laboratory setting, the fundamental laws of chemistry.

IV. INSTRUCTIONS FOR LABORATORY EXERCISES

Please arrive on time, as you will not be given extra time to finish the experiment beyond the designated time. Read about the experiment before coming to lab. It is unsafe and inefficient to read the handout, for the first time, as you are performing the laboratory experiment. Each exercise is worth five points. If the

VI. ATTENDANCE

Attendance is necessary in all lab meetings. If you cannot attend lab, due to serious illness or other emergency, you must contact me before the class period begins.

