

# CHEM 5 *Exploring Chemistry II*

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**Instructor**

Joel M. Goldberg

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**Office Location**

Discovery Hall  
Room W321

**Office Hours**

10:30 a.m. – noon, Wed  
2:00 – 3:30 p.m., Friday

**Class Meeting Times**

Sectn B: Thurs 1:15-5:15 pm  
Sectn C: Thurs 6-10 pm

**Class Lab Room**

Discovery Hall  
Room W407

**Lead Teaching Assistant**

Robert "Bobby" Tracy

**Course Overview**

We continue our experimental exploration of foundational chemistry, begun last semester in CHEM 051. This semester we will start out with a collaborative effort with CHEM 048, and explore qualitative/structural analysis using spectra from chemical instrumentation (e.g., NMR, IR, and Mass Spec). We will then focus on laboratory experiences exploring chemical equilibrium (solubility, acid-base, and complex-ion) kinetics, thermochemistry, and electrochemistry.

**Required Text Course Materials**

As with last semester, there are no required texts for this course. Handouts for each laboratory exercise will be provided, as needed, and will include literature references as necessary. You can continue to use the same lab notebook, safety goggles, etc. that you used last semester.

**Course Learning Objectives**

Together with the CHEM 048 co-requisite course, you will obtain a foundational understanding of the major ideas in chemistry, often demonstrated with organic compounds. This course serves to both support the work done in CHEM 048 as well as to explore other chemical concepts and methodologies fundamental to all areas of chemistry.

We will continue our use of a discovery or guided-inquiry structure in this course so that, in addition to the subject-based content, you will be exposed to and directed to solve chemical problems in the laboratory using the scientific method. It is our hope that the critical thinking and problem-solving skills you will learn and employ in learning chemistry this year will serve you as you explore disciplinary areas other than chemistry and will provide you with a template for exploration throughout your life.



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