

CHM 362 - Intermediate Organic Chemistry Laboratory
Course Syllabus, Fall 2005

Instructor: Dr. Lawrence R. Schmitz, Science 480, 696-2373, Schmitz@marshall.edu
Office Hours: T, R 10–11, 1–3; F 9–11
Required Items: Shriner, Hermann, Morrill, Curtin, Fuson, **The Systematic Identification Of Organic Compounds, Eighth Ed.**
Silverstein, Webster, Kiemle, **Spectrometric Identification of Organic Compounds, Seventh Ed.** Safety goggles. Notebook (bound).
Recommended: Laboratory coat or apron.

Schedule of Experiments

Aug. 22 Orientation, Check-in, Review of basic techniques using macro- or micro- scale glassware, Preparing solutions
Aug. 24 Check-in, CHM 305 introduction
Aug. 29 –Sept. 12 First Unknown (solved using wet chemistry)
Sept. 12-Sept. 26 Second Unknown (solved using spectroscopy and wet chemistry)
Sept. 28-Oct. 12 Third Unknown
Oct. 17-31 General Unknown
Nov. 2-Nov. 28 Unknown Mixture
Nov. 30 Completion of Unknowns, and Additional Spectroscopy Problems
Dec. 5 Final Exam, Check-out

Completion of all Experiments and Exams is Required. Attendance is Required

Course Objectives:

1. To acquaint you with a variety of wet chemical and spectroscopic techniques for the identification of organic compounds.
2. To improve your laboratory technique.
3. To improve your ability to reason from experimental observations.
4. To improve your ability to express your self in written English.

Lab Reports: In addition to being used to evaluate your ability to select, do, and interpret experiments, the lab reports will be used to help you improve your scientific writing. It is important that you write the reports with the objective of expressing yourself in a clear and scholarly fashion. I will edit your reports and if necessary require that you rewrite them until the writing is acceptable.

Problem Sets: In addition to the laboratory work in this course, you will be assigned a substantial number of spectroscopic and wet chemical organic qualitative analysis problems. Time will be set aside from the lab schedule for you to discuss these problems. There may be quizzes on or related to the assigned problems.

Grading:

Problems / quizzes	30%
Unknowns / Reports	45%
Exam	25%