

6. CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits

CHEM F324 W Organic Chemistry Laboratory (n)
4 credits

A laboratory course designed to illustrate modern techniques of isolation, purification, analysis and structure determination of covalent, principally organic, compounds. Enrollment limited. Contact department (474-5510) or fychem@alaska.edu early to get on the wait list. Special fees apply. Enrollment limited. Contact department (474-5510) or fychem@alaska.edu early to get on the wait list. Special fees apply. Prerequisites: ENGL F111X; ENGL 211X or ENGL F213X; or permission of instructor. Co-requisites: CHEM 322. (2 + 6)

7. COMPLETE CATALOG DESCRIPTION AS IT WILL APPEAR WITH THESE CHANGES: (Underline new wording ~~strike through old wording~~ and use complete catalog format including dept., number, title, credits and cross-listed and

differences in required work and evaluation for students at different levels.

CHEM F324 W Advanced Organic Chemistry Laboratory (n)
4 credits Offered Spring

JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. If you ask for a change in # of credits, explain

[The remainder of the page is a series of horizontal lines for writing, which are mostly obscured by heavy black redaction bars.]

ATTACH COMPLETE SYLLABUS (as part of this application).

Note: The guidelines are online: <http://www.uaf.edu/uafgov/faculty/cd/syllabus.html>

The department and campus wide curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course change will be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute course syllabus. Although modifications may be

made throughout the semester, this document will contain the following information (as applicable in the

discipline):

1. Course information:

Title, number, credits, prerequisites, location, meeting time
(make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:

Name, office location, office hours, telephone, email address

CHEMISTRY 324W **Spring 2012**
ORGANIC LABORATORY

Lecture:Monday and Friday 2:15-3:15; Reichardt 165
Lab:Tues and Thurs., 2:00-5:15; Reichardt 137
Instructor:.....John Keller, Office 161 Nat Sci, 474-6042; jwkeller@alaska.edu
.....Office hours by appointment, or drop-in.
Teaching Assistant TBA

Required Materials: (1) PAVIA et al. , MICROSCALE+MACROSCALE TECH.IN ORGAN.LAB ,
\$112 new at the UAF bookstore, \$84 used. Amazon.com: \$106 new, with free
shipping, \$48 used + \$4 shipping
(2) 8"x10" bound notebook.

Recommended Materials: USB memory stick for backing up data and text files

Extra: (1) Material Safety Data Sheets, gloves, goggles, and other supplies \$120

(2) \$45/41 (multiple chem classes)

The following references may be useful and should be found in (and should not be removed from) the

- *Aldrich Chemical Catalog* gives physical properties as well as safety issues for most commercially available organic reagents. (You can order your own free.)
- *The Merck Index* is an excellent reference book for over 10,000 important organic substances. It has a handy cross index and molecular formula index that you will find useful.
- *The CRC Handbook* is another reference book that provides some physical and spectral information on a wealth of substances. (The Merck Index is easier to use and more relevant.)

Prepared using Microsoft Word or compatible software

2. Please use the spelling and grammar checkers before handing anything in!
3. Submit in both hard copy (stapled) and electronic form, formatted identically. The hard copy should be printed on the Kyocera Color Laser (room 172) or similar printer and placed in JK's mailbox in the Chemistry office, 104 NSE. The electronic copy should be emailed to JK

4. Chemical structures can be drawn neatly by hand or using computer software (ChemWindow, or ACD/ChemSketch - the latter is free download from the Internet, and both are installed on Chem Computer Lab workstations). Chemical structures, reactions, and mechanisms should be inserted directly in the text, not at the end.

|| **Writing Intensive designation** A description of what a writing intensive course such as this is

found on the university web-site: <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course->

Lectures. It is essential that you attend all lectures and arrive on time to the laboratory in order to fully understand the experiment and safety issues.

Each lecture will begin by pointing out salient features for the upcoming experiment. Questions regarding 1) the choice of solvent, 2) order of addition, 3) which reagent to use in excess, 4) work-up steps, 5) appropriate stopping points, etc., will be addressed. In addition, as time allows, other topics will be covered that are described in the syllabus. Much of the midterm exam will come from these lectures..

Some experiments may have to be modified from the description given in the handouts. These modifications may include 1) reduction in the scale of the reaction, 2) changes in the glassware used, 3) additional analyses of the final product, and 4) alternative reagents, solvents or starting materials. A discussion of these modifications will be presented in the lecture and possibly at the beginning of the lab itself. **This is why lecture attendance is mandatory. Also, always check the marker board in lab (137 NSF) for important announcements.**

Grades: The final letter grade will be based on the total number of points accrued during the semester, apportioned as follows. (+/- grades may be used).

Experiments 1, 3, 6, 7 & 8 (50 pts each)	250
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Chem 324 Fall 2010 J. Keller/ SCHEDULE

Week of	Topics	New Techniques	Readings
30-Aug	Fri introduction	Computer lab	