

11/10-day

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(sign)

FORMAT 2

Submit originals (including syllabus) and one copy and electronic copy to the Faculty Senate Office
See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL
Attach a syllabus, except if dropping a course.

RECEIVED

SUBMITTED BY:

Department	Chemistry & Biochemistry	College/School	CNSM
Prepared by	Thomas Green	Phone	474-1559
Email Contact	tkgreen@alaska.edu	Faculty Contact	tkgreen@alaska.edu

SEP 21 2012

Dean's Office
College of Natural Science & Mathematics

1. COURSE IDENTIFICATION: As the course now exists.

Dept Course # No. of Credits

COURSE TITLE

2. ACTION DESIRED: Check the changes to be made to the existing course.

Change Course If Change, indicate below what is changing. Drop Course

NUMBER	TITLE	DESCRIPTION
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

*Prerequisites will be required before a student is allowed to enroll in the course.
Reference the registration implications below due to Banner coding of these terms:
Prerequisite: Course completed and grade of "C" (2.0) or higher prior to registering for the course that requires it.
Concurrent: Course may be taken simultaneously (and allows for a course to have been previously completed).
Co-requisite: Courses MUST be taken simultaneously and does NOT allow for fact that a course was previously completed!

CREDITS (including credit distribution) **COURSE CLASSIFICATION**

ADD CROSS-LISTING Dept. (Requires approval of both departments and deans involved. Add lines at end of form for additional signatures.)

STACKED (400/600) Dept. Course #

Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi—undergraduate and graduate versions—will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online - see URL at top of this page.

OTHER (please specify)

3. COURSE FORMAT

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council and the appropriate Faculty Senate curriculum committee. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

COURSE FORMAT: (check all that apply) 1 2 3 4 5 6 weeks to full semester

OTHER FORMAT (specify all that apply)
Mode of delivery (specify lecture, field trips, labs, etc)

The course will consist of one 3-hour laboratory period.

Governance
9/27/12 TLP

4. **COURSE CLASSIFICATIONS:** (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? YES NO X

IF YES*, check which core requirements it could be used to fulfill:

O = Oral Intensive, W = Writing Intensive, Natural Science,
*Format 6 also submitted *Format 7 submitted *Format 8 submitted

4.A **Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.**

YES NO

5. **COURSE REPEATABILITY:**

Is this course repeatable for credit? YES NO

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit? TIMES

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course? CREDITS

6. **COMPLETE CATALOG DESCRIPTION** including dept., number, title, credits, credit distribution, cross-listings and/or stacking, clearly showing the changes you want made. (Underline new wording ~~strike through old wording~~ and use complete catalog format including dept., number, title, credits and cross-listed and stacked.)

Example of a complete description:

PS F450 Comparative ~~Aberiginal~~ Indigenous Rights and Policies (s)
3 Credits
Offered As Demand Warrants
Case-study Comparative approach ~~in assessing Aberiginal~~ to analyzing Indigenous rights and policies in different nation-state systems. ~~Seven Aberiginal situations~~ Multiple countries and specific policy developments examined for factors promoting or limiting self-determination. Prerequisites: Upper division standing or permission of instructor. (Cross-listed with ANS F450.) (3+0)

CHEM F323 Organic Chemistry Laboratory
~~3~~ 1 Credits Offered Spring
A laboratory designed to illustrate modern techniques of isolation, purification, analysis and structure determination of covalent, principally organic, compounds. Intended for health science majors; chemistry majors must take CHEM F324W instead. *Co-requisite: CHEM F322.* (+0 +6 3)

7. **COMPLETE CATALOG DESCRIPTION AS IT SHOULD APPEAR AFTER ALL CHANGES ARE MADE:**

CHEM F323 Organic Chemistry Laboratory
1 Credits Offered Spring
A laboratory designed to illustrate modern techniques of isolation, purification, analysis and structure determination of covalent, principally organic, compounds. Intended for health science majors; chemistry majors must take CHEM F324W instead. *Co-requisite: CHEM F322.* (0 +3)

8. **IS THIS COURSE CURRENTLY CROSS-LISTED?**

YES/NO No If Yes, DEPT NUMBER

DROPPING A CROSS-LISTING:

YES DEPT NUMBER

Changing or dropping requires written notification of each department and

dean involved. Attach a copy of written notification.

9. **GRADING SYSTEM:** Specify only one.

LETTER: PASS/FAIL:

10. **ESTIMATED IMPACT**

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

This course will be taken primarily by health science majors and those whose major is not chemistry. We have offered this lab previously as a 3-credit lab. One credit has moved to Chem 321 Organic Chemistry I (see other course change) and one credit has been dropped. The department has determined that it can accommodate 4 sections of 16 students in Reichardt 245, which is more than enough to cover expected enrollments. Reichardt 245 is well-equipped with the necessary glassware and supplies. A lab fee will be assessed. The overall budget will be minimally affected since we are shifting some of the second-semester lab exercises to first-semester and reducing the overall number of organic lab credits from 3 to 2.

11. **LIBRARY COLLECTIONS**

Have you contacted the library collection development officer (*kljensen@alaska.edu*, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No Yes We offer the lab already and sufficient library resources are available.

12. **IMPACTS ON PROGRAMS/DEPTS:**

What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)

CHEM 323 is not a requirement for the BA in Chemistry (including Forensic option) or the BS in Chemistry (including Biochemistry and Environmental option). CHEM 323 course is designed for Health Science majors and others whose program requires a second semester of organic lab, such as pre-professional students.

13. **POSITIVE AND NEGATIVE IMPACTS**

Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

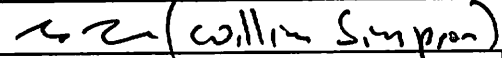
There are no apparent negative impacts. It may positively impact students in pre-professional programs that require one credit of second semester organic lab.


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 why; are you increasing the amount of material covered in the class? If you drop a prerequisite, is it because the material is covered elsewhere? If course is changing to stacked (400/600), explain higher level of effort and performance required on part of students earning graduate credit. Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the course is not compromised as a result.

Chem 323 Organic Chemistry Laboratory would change from 3 credits to 1 credit with this change. One credit is moving to the first semester organic course, as part of Chem 321. One credit is being dropped since health science majors and other pre-professional students rarely need more than a one-credit lab during the second semester of organic chemistry.

APPROVALS: (Additional signature blocks may be added as necessary.)


	Date	20 Sep 2012
Signature, Chair, Program/Department of:	20 Sep 2012 Chem + Biotech	

	Date	9/26/2012
Signature, Chair, College/School Curriculum Council for:	CNSM	

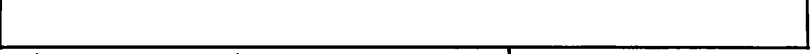
	Date	9/26/12
Signature, Dean, College/School of:	CNSM	


Offerings above the level of approved programs must be approved in advance by the Provost:


Signature of Provost (if applicable)	Date	
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ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE.		
	Date	
Signature, Chair Faculty Senate Review Committee:	<input type="checkbox"/> Curriculum Review <input type="checkbox"/> GAAC <input type="checkbox"/> Core Review <input type="checkbox"/> SADAC	

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking; add more blocks as necessary.)

	Date	
Signature, Chair, Program/Department of:		

	Date	
Signature, Chair, College/School Curriculum Council for:		

	Date	
Signature, Dean, College/School of:		

ATTACH COMPLETE SYLLABUS (as part of this application).

The guidelines are online:

<http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/>

The Faculty Senate 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 (or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to 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.

3. Course readings/materials:

Course textbook title, author, edition/publisher.
 Supplementary readings (indicate whether required or recommended) and
 any supplies required.

4. Course description:

Content of the course and how it fits into the broader curriculum;
 Expected proficiencies required to undertake the course, if applicable.
 Inclusion of catalog description is *strongly* recommended, and
 Description in syllabus must be consistent with catalog course description.

5. Course Goals (general), and (see #6)

6. Student Learning Outcomes (more specific)

7. Instructional methods:

Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:

A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say "lab". Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:

Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:

Specify how students will be evaluated, what factors will be included, their relative value, and how they will be tabulated into grades (on a curve, absolute scores, etc.) Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (Not required in the syllabus, but may be a convenient way to publicize this.) Faculty Senate Meeting #171:
<http://www.uaf.edu/uafgov/faculty-senate/meetings/2010-2011-meetings/#171>

11. Support Services:

Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: Note that the phone# and location have been updated.

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students have equal access to the campus and course materials.

State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

8/1/2012

Chemistry 323
Organic Chemistry Laboratory Syllabus
University of Alaska Fairbanks
Spring Semester

Course Information

Chemistry F323, Organic Chemistry Laboratory, 1.0 Credits
Reichardt 245, Tuesday 2:15-5:15pm
Co-requisite: Chem 322, Organic Chemistry II

Instructor

Thomas Green, Professor of Chemistry
Reichardt 174, Phone: 474-1559, Email: tkgreen@alaska.edu
Office Hours: Tues 1-4 pm, Thurs 2-5 pm.
Website: <http://www.uaf.edu/chem/faculty/tgreen/tgreen.htm>

Course Materials

Required: *Green Organic Chemistry*, KM Doxsee and JE Hutchison, Brooks/Cole, 2005.

Course Description: A laboratory course to accompany Chem 322, designed to illustrate modern techniques of isolation, purification, analysis and structure determination of covalent, principally organic, compounds. This lab is intended for Health Science majors and pre-professional students. Chemistry majors should take Chem 324W.

Course Goals. Learn the following practical aspects of organic synthesis.

1. Common safety procedures.
2. Concepts of Sustainable and Green Chemistry
3. Applications of the Techniques learned in Chem 321 Lab especially toward reactions learned in Chem 322. Multi-step synthesis will be included.
4. Spectroscopic and chromatographic analyses of intermediates and products.

Student Learning Outcomes

1. Know the hazards associated with common chemicals, especially those encountered in the experiments.
2. Know the underlying principles of Green Chemistry and how these concepts are being introduced into the organic laboratory curriculum at UAF.
3. Know how to safely apply techniques learned in Chem 321 Lab toward multi-step synthesis and purification, especially reactions learned in Chem 322.
4. Employ IR, NMR, GC/MS and HPLC instrumental techniques in the characterization of intermediates and products.

Instructional Methods

1. Laboratory sessions will consist of conducting reactions of organic compounds and their isolation, purification and characterization
2. Lab Reports will be required, which will describe various aspects of the experiment, results, and theoretical aspects of the reaction.

Laboratory Safety: Laboratory safety is a major concern of all chemical laboratories but is especially important in organic labs due to the presence of flammable solvents, potentially hazardous fumes, highly reactive reagents, etc. The first lecture will deal explicitly with these hazards and the appropriate safety measures you must follow. Subsequent lectures, besides covering the theory and pitfalls of the coming weeks' experiments and perhaps helping you interpret the previous week's experiment, will also cover specific hazards that you may encounter. Please attend these lectures and be prepared for the lab by doing any assigned readings and having your notebook prepared before coming to lab. If you are not prepared for lab you may be asked to leave.

Schedule: Experiment numbers correspond to those in the Lab Manual. Open labs will be used as an opportunity to complete write-ups and catch up on experiments if necessary.

Week	Experiment
1	Check-in; Safety
2	18 Acetylation of Ferrocene
3	18
4	13 Pd-catalyzed Coupling of Alkynes
5	13 Continued
6	8 Synthesis/metallation of porphyrins
7	8
8	Handout – Synthesis of fluorescent coumarins
9	Handout
10	15 Thiamine-mediated Benzoin Condensation
11	15
12	17 Combinatorial Chemistry; Antibiotic Drug Discovery
13	17
14	Make-up labs, check-out

Grading

Quizzes 6 x 10 pts = 60 pts
Lab reports 6 x 40 points = 240 pts
Total pts = 300 pts

Letter Grade	Points per Credit	Percentage required
A+	4	93
A	4	90
A-	3.7	87
B+	3.3	83
B	3	80
B-	2.7	77
C+	2.3	73
C	2	70
C-	1.7	67
D+	1.3	63
D	1	60
D-	0.7	57
F	0	<57

Notes and Policies:

1. Lab attendance is expected and role will be taken.
2. Make-up labs are only allowed in the event of a legitimate excuse as determined by the instructor. Oversleeping is not an excuse. Quizzes must be made up as soon as possible. These make-up exams will be scheduled at later date so that all who missed the quiz can attend.
3. Safety Rules will be strictly enforced.
4. Cheating will result in a grade of F for the course

Disabilities Services

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. Students with documented disabilities who may need reasonable academic accommodations should discuss these with me during the first two weeks of class. I will work with the Office of Disabilities Services (*208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities. You will need to provide documentation of your disability to Disability Services.