Submit originals and two copies and electronic copy to Governance/Faculty Senate Office

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

SUBMITTED BY:
Department: Chemistry and Biochemistry
Prepared by: William Simpson
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College/School: CNSM
Phone: 907 474 7235
Faculty Contact: William Simpson

1. CURRENT COURSE IDENTIFICATION:
Dept: CHEM  Course #: 312  No. of Credits: 4
COURSE TITLE: Instrumental Analytical

2. ACTION DESIRED:
Change Course  Drop Course
If Change, indicate below what changes are being requested.

NUMBER  TITLE  DESCRIPTION

PREREQUISITES

CREDITS (including credit distribution)

CROSS-LISTING
Dept.

STACKING (400/600)
Dept.

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. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

COURSE FORMAT:
(check all that apply)

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

lecture + laboratory

X 6 weeks to full semester

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  N = Natural Science  S = Social Sciences

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

IF YES, check which core requirements it could be used to fulfill:
O = Oral Intensive, Format 6 turned in:
W = Writing Intensive, Format 7 turned in:

Natural Science, Format 8 turned in:

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?

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

Received

APR 23 2010

Dean's Office
College of Natural Science & Mathematics
6. CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits

   CHEM F312 Instrumental Analytical (n)

   4 Credits
   Offered Fall

   Analytical theory, instrumentation, and methodology course focused on the analysis of inorganic and organic compounds present in various environmental matrices. Subjects include gas and liquid chromatography, atomic spectrophotometry, electrochemistry, and mass spectrometry. The lab component of the course will allow students an opportunity to directly apply lecture material in hands-on experiments using modern analytical instrumentation. Co-requisites: CHEM F331. (3+3)

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 stacked.) PLEASE SUBMIT NEW COURSE SYLLABUS. For stacked courses the syllabus must clearly indicate differences in required work and evaluation for students at different levels.

   N/A

8. IS THIS COURSE CURRENTLY CROSS-LISTED?

   YES/NO  No
   If Yes, DEPT  
   NUMBER  

   (Requires written notification of each department and dean involved. Attach a copy of written notification.)

9. GRADING SYSTEM:

   LETTER:  X  PASS/FAIL:  

10. ESTIMATED IMPACT

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

    We have re-arranged the courses in the Junior-Senior Physical / Analytical chemistry sequence by integrating laboratory sections into lecture courses and need to reduce the total number of courses required for chemistry majors. In addition, Biochemistry majors needed to take a writing intensive laboratory and removal of this course assists in allowing them to take senior-level capstone laboratory courses. If there is any impact, it would be a budget savings by not teaching the course.

11. LIBRARY COLLECTIONS

    Have you contacted the library collection development officer (flkj@uaf.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  

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)

    Chemistry and Biochemistry programs (Chemistry BA, BS, Environmental Chemistry, Forensic Chemistry) are directly affected by this change.

13. POSITIVE AND NEGATIVE IMPACTS

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

    Positive: We are re-organizing the analytical/physical chemistry curriculum. As a part of that re-arrangement, some of the content from this course (which we are requesting to drop) will be incorporated into CHEM413W (Analytical Instrumental Laboratory) and the pre-requisite courses for CHEM413W will be relaxed.

    Removal of this course, which was required for the majors listed above will give more time for students to take chemistry research and electives. We have recently been re-accredited by the American
Chemical Society, and in doing that re-accreditation, we found that we exceeded the number of required analytical courses. Therefore, there is no problem by our accrediting body with removing this course. In addition, for Biochemistry/Molecular Biology majors, the removal of this course and incorporation of some of the content into CHEM413W (Analytical Instrumental Laboratory) will allow them to take CHEM413W or an alternative, increasing the flexibility to those majors.

Negative: This change will slightly reduce the number of hours of lecture on analytical chemistry. However, we were teaching more analytical chemistry than our accrediting body required and are integrating much of this material into other courses. Our students still have a large amount of experience with advanced analytical techniques through required classes, electives, and undergraduate research.

14. 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.

We are requesting to drop CHEM312 (Instrumental Analytical Methods) and incorporate some of its content into CHEM413W (Instrumental Analytical Laboratory). This change will give more time for our majors to pursue research and chemistry elective courses. The Department of Chemistry and Biochemistry is accredited by the American Chemical Society. Through our recent re-accreditation, we found that we exceeded the requirements for analytical chemistry. Therefore, we are requesting to drop CHEM312 and incorporate its content into other courses. Students still have a large amount of exposure to analytical chemistry, including the required courses CHEM212 (Chemical Equilibrium and Analysis), CHEM311 and 332 (Physical Chemistry, which studies the core principles of Analytical Chemistry and has associated laboratory sections using analytical instrumentation), and CHEM413W (Instrumental Analytical Laboratory).

APPROVALS:

Signature, Chair, Program/Department of: ____________________________
Date 4-21-10

Signature, Chair, College/School Curriculum Council for: ____________________________
Date 4-26-10

Signature, Dean, College/School of: ____________________________
Date 5-1-11

Signature of Provost (if applicable)
Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE.

Signature, Chair, UAF Faculty Senate Curriculum Review or Graduate Academic & Advisory Committee
**ADDITIONAL SIGNATURES: (If required)**

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