Submit originals and one copy and electronic copy to Governance/Faculty Senate Office. See http://www.ua.edu/afgov/faculty/ed for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

<table>
<thead>
<tr>
<th>DEPT</th>
<th>COURSE #</th>
<th>NO. OF CREDITS</th>
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<tbody>
<tr>
<td>ME</td>
<td>487</td>
<td>3</td>
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**Department**: Mechanical Engineering  
**College/School**: CEM  
**Prepared by**: Gang Sheng (Gang Chen)  
**Email**: gsheng@alaska.edu  
**Phone**: 5649 (Gang Sheng)  
**Faculty Contact**: 5649 (Gang Sheng)

**1. COURSE IDENTIFICATION:**

- **Dept**: ME  
- **Course #**: 487  
- **No. of Credits**: 3

**COURSE TITLE**: Senior Design

**2. ACTION DESIRED:**

- Change Course [ ]  
- Drop Course [x]

**NUMBER**  
**PREQUISITES**  
**CREDITS (including credit distribution)**  
**CROSS-LISTED**  
**STANCED (400/600)**  
**OTHER (please specify)**

(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

**3. COURSE FORMAT**

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

- **OTHER FORMAT (specify all that apply)**
  - Lecture and projects

- **Mode of delivery (specify lecture, field trips, labs, etc)**

**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 [x] NO

- IF YES, check which core requirements it could be used to fulfill:
  - 0 = Oral intensive  
  - W = Writing intensive, Format 7 submitted  
  - Natural Science, Format 8 submitted

**5. COURSE REPEATABILITY**

- Is this course repeatable for credit? YES [ ] NO [x]

- Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).
6. CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG: including dept., number, title and credits

ME F487W, Design Project, 3 credits
A real or simulated engineering design project selected jointly by student and instructor. Emphasis one design of practical engineering systems and/or components which integrate students engineering knowledge and skills. Special fees apply. Prerequisites: COMM F131X or COMM F141X; ENGL F111X; ENGL F211X or ENGL F213X or permission of instructor; ME F441; senior standing. Co-requisite: ME F403.

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.

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: 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 dropped and two new courses will replace it. It won't cause any impact due to the change.

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 x  YES  There is no need to change the library/media collections, equipment, and services for dropping the course

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)
    No program in ME will be affected by this proposed action.

13. POSITIVE AND NEGATIVE IMPACTS
    Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.
The only positive impact is to students who will have more time to practice and complete their senior design project.

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.

- For the capstone design course (senior design), the past experience shows that it needs longer time than one semester for many students to complete a comprehensive design process, which includes project definition, specification, concept design, development, fabrication and test.
- ME department once had a meeting in Nov. 2010 dedicated to discussing this issue, and a consensus was reached: this course needs to be dropped and two new courses (senior design I and II) should be formed to replace it, so as to allow students to have two semesters to conduct a comprehensive senior design.
- This proposal is for the dropping of current senior design course, so as to initiate and implement two new proposed courses.

APPROVALS:

Signature, Chair, Program/Department of: Mechanical Engineering
Date 2/4/2011

Signature, Chair, College/School Curriculum Council for: CEM
Date 2/18/11

Signature, Dean, College/School of: CEM
Date 2/22/11

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 Committee
Date
<table>
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ATTACH COMPLETE SYLLABUS (as part of this application).
Note: The guidelines are online: http://www.uaf.edu/ufagov/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 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.)
11. Support Services:
    ☐ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.
12. 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.
    ☐ State that you will work with the Office of Disabilities Services (208 WHIT, 474-5655) to provide reasonable accommodation to students with disabilities."