



SACRAMENTO
STATE

Course Change Proposal Form A



Academic Group (College): Engineering and Computer Science	Academic Organization (Department): Mechanical Engineering	Date: March 12, 2009
Type of Course Proposal: New <input checked="" type="checkbox"/> Change <input type="checkbox"/> Deletion <input type="checkbox"/>	Department Chair: Susan L. Holl	Submitted by: Dan Noren
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	For Catalog Copy: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CCE (Extension): Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Semester Effective: Fall <input checked="" type="checkbox"/> Spring <input type="checkbox"/> , 2009

This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):	
If changing an existing course, should new version be considered a repeat of the original version? If so, the same Course ID will be maintained. If not, a new Course ID will be assigned. Note: In PeopleSoft terminology, the Course ID is the unique system identifier, not the Catalog Nbr.	Yes <input type="checkbox"/> No <input type="checkbox"/>

Change from:

Subject Area (prefix) & Catalog Nbr (course no.):	Title:	Units:
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Change to:

Subject Area (prefix) & Catalog Nbr (course no.): ME 108	Title: Professional Topics for Mechanical Engineers	Units: 2
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JUSTIFICATION:

Mechanical Engineers need an introduction to both Engineering Statistics and Engineering Economics. The ME program has required one or the other of ENGR 115 or ENGR 140 over the years depending on the focus of ABET comments. After discussion with the Civil Engineering Department (they are responsible for both ENGR 115 and ENGR 140) it was determined that the best solution would be to teach selected topics from both courses to ensure all ME students would have the basic information to pass the Fundamentals of Engineering (FE) exam.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See <http://www.csus.edu/umannual/acad.htm> - Guidelines for Catalog Course Description)

Introduction to statistical methods applied to analysis of engineering systems. Topics include data collection, distribution characteristics, probability, uses of regression analysis, and decision-making under uncertainty. Introduction to economic analysis applied to engineering designs. Topics include marginal or incremental economic analysis using multiple standard methods while addressing organizational constraints and market factors.

Note:

Prerequisite: Math 31
Enforced at Registration: Yes No

Corequisite:
Enforced at Registration: Yes No

Graded: Letter Credit/No Credit **Instructor Approval Required? Yes No**

Course Classification (e.g., lecture, lab, seminar, discussion):
lecture **Title for CMS (not more than 30 characters):**
Professional Topics Mech Engin

Cross Listed?
Yes No **If yes, do they meet together and fulfill the same requirement, and what is the other course.**

How Many Times Can This Course be Taken for Credit? 1

Can the course be taken for Credit more than once during the same term? Yes No

FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."
See the example at <http://www.csus.edu/acaf/example.htm>

By the end of this course, students will be able to:

1. Explain to a colleague the fundamentals of engineering statistical analysis
2. Explain to a colleague the use of typical statistical data representations
3. Explain to a colleague the fundamentals of probability including hypothesis testing
4. Explain to a colleague the fundamentals of engineering economics
5. Explain to a colleague the fundamentals of various standard economic analysis techniques, including but not limited to present worth, future worth, cost-benefit and replacement analysis

****Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.**

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Homework, examinations, project

For whom is this course being developed?

Majors in the Dept Majors of other Depts Minors in the Dept General Education Other

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes No

If yes, identify program(s): B. S. in Mechanical Engineering

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes No

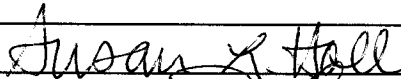
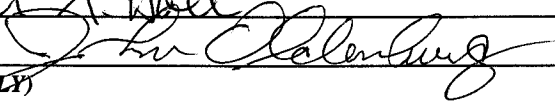
If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). Civil Engineering

The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:

	Date
Department Chair: 	4/24/09
College Dean or Associate Dean: 	4/24/09
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs	

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.