# Course Change Proposal

**Form A**

<table>
<thead>
<tr>
<th>Academic Group (College):</th>
<th>Engineering &amp; Computer Science</th>
<th>Academic Organization (Department):</th>
<th>Mechanical Engineering</th>
<th>Date:</th>
<th>9/29/2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Course Proposal:</td>
<td></td>
<td>Department Chair:</td>
<td>Susan L. Holl</td>
<td>Submitted by:</td>
<td>Timothy Marbach</td>
</tr>
<tr>
<td>New ___ Change ___ Deletion X ___</td>
<td></td>
<td>CCE (Extension):</td>
<td>Yes ___ No X ___</td>
<td>Semester Effective:</td>
<td>Fall X Spring ___, 2011 ___</td>
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</table>

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 ___ | No ___ |

**Change from:**

<table>
<thead>
<tr>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title:</th>
<th>Units:</th>
</tr>
</thead>
</table>

**Change to:**

<table>
<thead>
<tr>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title:</th>
<th>Units:</th>
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<tbody>
<tr>
<td>ME 125</td>
<td></td>
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**JUSTIFICATION:**

ME 125 was a required course but is no longer part of the Mechanical Engineering BS curriculum because essential material is now covered in another required course (ME 128).

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

**Note:**

<table>
<thead>
<tr>
<th>Prerequisite:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforced at Registration: Yes ___ No ___</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corequisite:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforced at Registration: Yes ___ No ___</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graded:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter ___ Credit/No Credit ___</td>
</tr>
</tbody>
</table>

**Instructor Approval Required?** Yes ___ No ___

<table>
<thead>
<tr>
<th>Course Classification (e.g., lecture, lab, seminar, discussion):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor Approval Required? Yes ___ No ___</td>
</tr>
</tbody>
</table>

**Title for CMS (not more than 30 characters):**

**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?**

| Yes ___ No ___ |

Can the course be taken for Credit more than once during the same term?
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

**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:

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):

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). ____________________________

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

Accessibility: Following course approval, and prior to the start of the semester in which the new or revised course will be taught for the first time, an accessibility checklist [available at http://www.csus.edu/accessibility/checklist.html] shall be completed and submitted to the appropriate Dean's office. An accessible syllabus shall also be made available online, preferably prior to the start of that semester's open registration period.

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: ____________________________

<table>
<thead>
<tr>
<th>Department Chair: Susan L. Holl</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Susan A. Holl</td>
<td>9/29/2010</td>
</tr>
<tr>
<td>College Dean or Associate Dean:</td>
<td>10/18/10</td>
</tr>
<tr>
<td>CPSP (for school personnel courses ONLY)</td>
<td></td>
</tr>
<tr>
<td>Associate Vice President and Dean for Academic Programs</td>
<td></td>
</tr>
</tbody>
</table>

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.

5/20/2010
COURSE TITLE: ME 125 Mechanical Engineering Measurements

CATALOG DESCRIPTION:

Theory and practice of instrumentation for basic temperature, pressure, flow, force and power applied to thermal-fluid engineering problems through conducting experiment, acquiring data, analyzing uncertainty, and interpreting and presenting results.

PREREQUISITES:
ENGR 124, ENGR 132

TEXT:
Required:
Laboratory Manual for ME 125, Measurements for Engineering Technology, Fall 2008, Department of Mechanical Engineering, CSU, Sacramento

Optional:
None

GOALS: To increase the students' understanding of the process of measurement as applied in the field of thermal-fluid and mechanical engineering.

OBJECTIVES:

By the end of the semester, the student will be able to

1. Understand the methodology in the acquisition and assessment of experimental data, and the principle of various mechanical measuring devices;
2. Demonstrate a knowledge of the engineering principles that are fundamental to thermal-fluid and mechanical systems design;
3. Plan and conduct an experiment test program to achieve prescribed objectives:
4. Contribute to effective function of a team;
5. Improve his/her ability to write technical reports and test procedures, and to make oral presentations.

TOPICS COVERED:

Basic Concepts of measurement
Report writing and presentation
Analysis of experimental data
Pressure Measurement
Flow measurement
Measurement of Temperature
Force, Torque and Power Measurements
Uncertainty Analysis
Thermal and Transport Property Measurements
Plan and Conduct Experiments
CLASS SCHEDULE:

Class Meetings           Laboratory           Exams/Tests
Two 75-min or three 50-min One 3-hr lab/week Final Project lectures/week

PROFESSIONAL COMPONENT
This course is a combination of engineering science study and skills/techniques development.

RELATIONSHIP TO ME PROGRAM OUTCOMES:
This course is related primarily to the following outcomes:

a. Demonstrate a knowledge of the engineering principles that are fundamental to thermal and mechanical systems design and manufacturing;
b. Plan, conduct, analyze and interpret experiments and apply experimental results, using the principles of science and mathematics and appropriate computer technology;
d. Function effectively as part of a team;
e. Identify, analyze, and solve technical problems in the areas of machine design, including solid mechanics and control systems; fluid mechanics, thermodynamics and heat transfer; material properties and selection; and manufacturing, using the principles of multivariate calculus and differential equations, including the appropriate use of computer technology;
g. Communicate effectively through speaking, writing, and graphics, including the appropriate use of computer software

COORDINATOR: Dongmei Zhou  Date: Fall 2008