# Course Change Proposal

## Form A

<table>
<thead>
<tr>
<th>Academic Group (College):</th>
<th>Academic Organization (Department):</th>
<th>Date: Sept. 1, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECS</td>
<td>Mechanical Engineering</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Course Proposal:</th>
<th>Department Chair:</th>
<th>Submitted by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New _ Change <em>X</em> Deletion ___</td>
<td>Susan L. Holl</td>
<td>Tom Liu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does this course fulfill a requirement for single-subject or multiple subject credential students?</th>
<th>For Catalog Copy:</th>
<th>Semester Effective:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes ___ No <em>X</em>_</td>
<td>Yes <em>X</em> No ___</td>
<td>Fall ___ Spring <em>X</em>, 2011___</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCE (Extension):</th>
<th>Yes ___ No <em>X</em>_</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Yes <em>X</em> No ___</td>
</tr>
</tbody>
</table>

### Change from:

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

### Change to:

<table>
<thead>
<tr>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title: Product Design for Manufacturing and Automation</th>
<th>Units: 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 137</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### JUSTIFICATION:

Changing pre-requisites to align them with the current required major curriculum. We no longer offer the listed pre-requisite, ME 119.

### 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)

No change

Note:

Prerequisite: ME 117
Enforced at Registration: Yes _X_ No ___

Corequisite:
Enforced at Registration: Yes _X_ No ___

Graded: Letter _X_ Credit/No Credit ___
Instructor Approval Required? Yes ___ No _X__

Course Classification (e.g., lecture, lab, seminar, discussion): Lecture (C4)
Title for CMS (not more than 30 characters)
Product Design for Manufacture

Cross Listed?
Yes _X_ 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

**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. X__ 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 X__ No _X__
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 _X__
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: Date
Department Chair: Susan L. Holl \[Signature\] Sept. 8, 2010
College Dean or Associate Dean: \[Signature\] 9/24/10
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.

5/20/2010
ME 137
Product Design for Manufacturing and Automation

Course Objectives: To teach advanced topics in product design for manufacturing and automation, including Design for Machining, Design for Numerical Control, Design for Assembly, Applications of CAD/CAM software in product Design and automation, Rapid Prototyping, Virtual Design and Manufacturing, Web-based Design and Manufacturing, Environmentally Conscious Design and Manufacturing, Design and Manufacturing of Micro Electro Mechanical Systems (MEMS), etc.

Course Requirements: 1. Successful completion of the design project 2. Successful completion of three exams 3. Successful completion of three quizzes

Grading: Quizzes 15% (Four quizzes. No make-up for any quiz)
Exams 45% (Three exams. No make-up for any exam)
Design Project 40% (Late project report is not acceptable)

Schedule

Week Lecture
1 Overview of Product Design for Manufacturing and Automation
2 Design for Machining
3 Design for Numerical Control
4 Design for Assembly
5 Presentation and discussion of Design Proposal
6 Case Studies
7 Applications of CAD/CAM Software in Product Design and Automation
8 Rapid Prototyping
9 Presentation and discussion of the Progress of Design Project
10 Spring Recess
11 Virtual Design and Manufacturing
12 Web-based Design and Manufacturing
13 Environmentally Conscious Design and Manufacturing
14 Design and Manufacturing of MEMS
15 Design for Manufacturability and Quality for MEMS
16 Final Design Project Presentation
Report of Design Project Due May 13, 2009