MECHANICAL ENGINEERING PROGRAM
ABET COURSE SYLLABUS

ME 240: Three-Dimensional Modeling with SolidWorks (1 credit): Required Course

Course Description (2008-2010 Catalog): Parametric, feature-based solid modeling with Solidworks software package. Credits 1

Prerequisite Course: None


Other Reference Material: N/A

Course Coordinator: Z.Y. Wang, Associate Professor

Course learning outcomes: basics of SolidWorks 3-D modeling software, from simple extrusions to 2-D engineering drawings and finite element analysis using COSMOSExpress.

Relationship of Course to Mechanical Engineering Program Educational Outcomes:

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<tr>
<th>Goal 1: Provide mechanical engineering graduates with technical capabilities.</th>
<th>Goal 2: Prepare the mechanical engineering graduates to have effective workplace skills.</th>
<th>Goal 3: Instilling a sense of responsibility as a professional member of society.</th>
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<td>1.a</td>
<td>1.b</td>
<td>1.c</td>
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<td>Low</td>
<td>Medium</td>
<td>High</td>
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Topics Covered:

- Intro to SolidWorks, Features, Drawings
- Extruded Parts, Cuts
- Revolves, Fillet & Chamfer

Project Assignments

- Lofts
- Suppressing/Hiding Features
- Hole Wizard, Patterns, Mirror
- Editing Materials and Colors, Assemblies
- Engineering Drawings
- Sheet metal
- FEA using COSMOSExpress
Laboratory Projects: In-class assignments and homework are assigned weekly, and projects are given in the 10th week. It can be submitted via email (if file is under 10 MB) or on a USB drive. Late assignments will not be accepted. All work is graded by instructor.

Class/Laboratory Schedule: MW 10:00-10:50 AM (Spring Semester)

Assessment of Student Progress toward Course Objectives
In-class assignments are conducted every class and are consist of the material being covered that day. Attendance is mandatory to obtain a grade for in-class assignments.

Contribution of Course for meeting Professional Component:
(a) Mathematics and basic sciences: 0 credit
(b) Engineering Topics (Design/Science): 1 credit
(c) General Education: 0 credit
(d) Others: 0 credit

Prepared By: Date:
Z.Y. Wang October 2, 2009