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

Textbook:" D. C. Planchard and M. P. Planchard, *Engineering Design with SolidWork*

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:

Goal1: Provide mechanical engineering graduates with technical capabilities.					Goal 2: Prepare the mechanical engineering graduates to have effective workplace skills.				Goal 3: Instilling a sense of responsibility as a professional member of society.			
1.a	**1.b**	**1.c**	**1.d**	**1.e**	**2.a**	**2.b**	**2.c**	**2.d**	**3.a**	**3.b**	**3.c**	**3.d**
L	**M**	**L**	**H**	**M**	**H**			**M**	**L**			

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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