

Engineering Design Using CAD - ME311 – Spring 2010

Bethune: x3414, Bethune@bu.edu

Section A1, Thursday 2:00, PHO 210, LAB: RM302 at 110 Cummington St.

Lab: 3-5989

TEXT: Engineering Design and Graphics with SolidWorks 2008, Pearson Prentice Hall, Bethune

GRADES: 30% Lab work and Class Assignments

25% Quiz 1

25% Quiz 2

20% Drawing Project

**ALL LAB WORK IS DUE 1 WEEK AFTER IT IS ASSIGNED.
NO LATE WORK WILL BE ACCEPTED.**

Copies assignments will be given 0 credits, and 5 points will be deducted from the final grades for each offense.

DATE	TOPIC	LAB ASSIGNMENT
1/14	Introduction to SolidWorks	P1-4, P1-11, P1-14 P2-4 Due 1/21
1/21	3D Models	P2-7, P2-22, P3-9, P3-18, P3-28 Due 1/28
1/28	Orthographic views	P4-7, P4-16, P4-43, P4-52 Due 2/4
2/4	Assembly drawings	P5-10, P5-12 (2x credit) Due 2/11
2/11	Threads and fasteners	P6-1, P6-4, P6-7 Due 2/18, Class handout
2/18	Dimensions	P7-4 (inches), P7-8 (millimeters) P7-22 B&D, P7-35 Due 2/25, Class handout
2/25	Quiz 1 Closed book/Closed Notes – Orthographic views, Threads	

3/4	Tolerances and Fits	P8-1B, P8-8, P8-20 & P8-23 (linear tolerances) Class handout Due 3/18
3/11	Spring Break	
3/18	Geometric tolerances	P8-31, P8-44 P8-20 & P23 (geometric tolerances) Class handout Due 4/2
3/25	Bearings and shafts	P10-2, P10-8, P10-10, P10-12
4/1	Drawing Project	Teams of no more than 3 Each team must submit a complete set of Drawings. Due 4-29
4/8	Gears	P9-14 (2x credit) Due 4/15
4/15	Quiz Review	
4/22	No lecture – Work on Drawing Project	
4/29	QUIZ 2 – CLOSED BOOKS, CLOSED NOTES Tolerances, both linear and geometric Bearings and shafts Gears	

Drawing Project Requirements

1. A 3D Solid Model of the
2. 3D isometric assembly drawing, include assembly numbers
3. Parts list (BOM), include a materials column
4. Create a dimensioned drawing of each individual part. Standard parts, such as screws, and nuts do not require drawings. Use decimal inches for all dimensions ($1 \frac{3}{4} = 1.75$). Use two decimal places unless otherwise specified.