

BE 1250

Introduction to Engineering Methods

Fall, 2008

Credit hours: 2 (6 hours of lab)

Course Description: Fundamentals of engineering design; presentation of an engineering design; graphical expression of engineering design using computer-aided drafting.

Objectives:

1. To learn and apply the engineering design process to a design problem.
2. To become proficient in the use of computer-aided drafting.
3. To make an engineering design report
4. To gain competency in written and technical communication
5. To effectively use spreadsheets to solve engineering problems

Instructors:

- (Section 1) Dr. Mike Mailander, Associate Professor,
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Office hours: whenever I am in or by appointment
- (Section 3) Dr. Todd Monroe, Assistant Professor,
Room 163 E.B. Doran,
Phone # 578-1059
E-mail: tmonroe@lsu.edu
Office hours: TBA; also by appointment
- (Sec 1, 2, 3) Ms. Anna Charron Dugas,
Room 102-A3 Ag Metals,
Phone # 578-1083
E-mail: acharron@lsu.edu
Office hours: mornings by appointment

Criteria for determining grade:

- Homework 50%
- Term Design Project 25%
- Exam 20%
- Participation 5%

Final course grade will be determined from the following scale:

A = (100 - 90)%, B = (89 - 80)%, C = (79 - 70)%, D = (69 - 60)%, F = (59 - 0)%.

Regulations and Procedures

Class attendance and participation is required.

Homework assignments will be made approximately once a week for the first seven weeks. Assignments turned in after the due date will receive no credit unless permission is obtained from a physician. The exams will not be made up unless prior approval is obtained from us, or in the case of extremely mitigating circumstances.

Academic Misconduct:

Academic Misconduct, as defined in the Code of Student Conduct, will not be tolerated in this course. It is our responsibility as the instructors to report such incidents to the Department of Judicial Affairs. It is your responsibility to understand the Code of Student Conduct and make sure your actions and perceived actions are not considered as misconduct. Ignorance of these rules will not be an adequate defense in such cases. Go to <http://app1003.lsu.edu/slas/judicialaffairs.nsf/index> for a copy of the current Code of Student Conduct.

Office Hours:

We are available for questions outside of class at most times. Please stop by one of our offices if you need help. If we are busy and do not have time to meet with you, we will schedule an alternate time. If you have trouble finding one of us, you can always make an appointment by e-mail and this may be an easier way of contacting one of us than by using the phone. If we make an appointment and you cannot attend, please call and cancel as soon as you can.

Schedule of instruction (subject to change)

<u>Week of</u>	<u>Topic</u>	<u>Assignment</u>
25-Aug	Introduction to course Intro to AutoCAD	Assignment #1 – Business Letter Assignment #2 – Dorm Room
1-Sep	Labor Day Holiday Dimensions, Layouts Essays	Assignment #3 - bracket Assignment #4 –Essay on Engineering Method
8-Sep	Polylines, arrays Zoom, paperspace Layers, blocks	Assignment #5 - saw blade Assignment #6 - scale Excel Pretest

15-Sep	Orthographics Engineering Specs Raster images & GPS	Assignment #7 – ortho-projection Assignment #8 – LSU lake project
22-Sep	3D in AutoCAD Extrude, Revolve Shop Safety	orthographic project - block of wood
29-Sep	Introduction to Inventor Assembly, Constraints	Tutorial
6-Oct	Dims and Plots	Inventor Project #1 – robotic hand
9,10-Oct	Fall Break	
13-Oct	Midterm Review BAE Tour	
15,16-Oct	Mid-term Exam	
20-Oct	Advanced Functions 3-D printing	Inventor Project #2 C x C field trip
27-Oct	spreadsheets graphing Data analysis	Excel spreadsheet Excel graphing Excel statistics
3-Nov	Group Projects	Team-building exercise Digital portfolios (C x C)
10-Nov	Group Projects	Project fabrication
17-Nov	Group Projects	Project testing
24-Nov	Group Projects	Re-design and testing
25,26-Nov	Report 1st Draft Due	
27,28-Nov	Thanksgiving Holiday	
1-Dec	Group Projects	
2,3-Dec	Competition	
4,5-Dec	Clean-up	
12-Dec	Final Report Due	