ENGR 101 – Introduction to Engineering and Engineering Technology

Course Instructor: Dr. Edmund Tsang, C-250 CEAS

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Office Hour: MW – 9:00-10:00 & 4:00-5:00; F – 9:00-10:00

Meeting Times & Place: MW-12:00-12:50 pm; F-12:00-2:30 pm; D202 CEAS

Course Objectives

1. Enhance problem solving skills in mathematics, science, and engineering.
2. Enhance competency in a computer spreadsheet program for engineering analyses.
3. Develop skills in the engineering design process.
4. Develop skills in teamwork.
5. Develop communication skills.
6. Develop professional behavior in the areas of punctuality, time management, meeting deadlines, and professional appearance appropriate of engineering professionals.
7. Network with faculty and students of the College of Engineering and Applied Sciences, potential future employers, and other Western Michigan University support personnel.
Course Learning Outcomes

1. Students successfully apply mathematics and engineering science to complete several case studies in engineering and engineering technology.

2. Students successfully demonstrate the engineering design process in completing a design project.

3. Students demonstrate competency in using a computer spreadsheet program to perform engineering analyses, graphing, and reporting.

4. Students demonstrate teamwork skills.

5. Students demonstrate communication skills.

6. Students demonstrate punctuality in attending class.

7. Students meet all assignment deadlines.

8. Students demonstrate time management skill in carrying out the design project.

9. Students have networked with CEAS faculty and students, employers of engineers and engineering technologists, and other WMU support personnel.
Textbook: None

Reference Materials:
1. www.asee.org/precollege
3. Course notes developed by instructors

Grading:
1. Homework 60%
2. Design Project 30%
3. Attendance 5%
4. Teamwork 5%
   
Total 100%

(Bonus Project–up to 5%)

A=90-100%; BA=85-89%; B=80-84%; CB=75-79%; C=70-74%; DC=65-69%;
D=60-64%; E<60%
Course Policies

1. Attendance - two (2) unexcused absence allowed
2. Punctuality – do not want to be late > 5 min.
3. Homework is due on the deadline; late homework not accepted.
4. Academic Honesty - Undergraduate Catalog (pp. 268-269)
5. Special Needs
**Bonus Projects** – 1 point per bonus project, up to 5 points

Bonus Project #1: Attend Engineering Opportunity Day – 9/25, 10 a.m. to 4 p.m. in CEAS.

Bonus Project #2: Attend CEAS Food Fest (FREE FOOD) 9/26, 5 to 7 p.m. picnic area of CEAS.

Bonus Project #3: Attend presentation “Travel Into An Exciting But Uncertain Future” by D. James McDowell – 10/3, 7:30-9:00, Rm. 2000 Schneider Hall.

Bonus Project #4: Attend presentation by Dr. Bill Wulf, President of the National Academy of Engineering – 10/27 at 4-5 p.m. in D-109 CEAS.

Bonus Project #5: Attend a panel discuss by WMU-CEAS alumni – 11/6, 5:30-7:00, place TBA.

Bonus Project #6: Attend a meeting of a student engineering society.

Bonus Project #7: See academic advisor to discuss you classes for Spring 2004.

Bonus Project #8: Information you should know as a student of WMU.