Foundation of Engineering I- ENGR 1211- Fall 2012
School of Engineering and Computing Sciences
Texas A&M University- Corpus Christi

Instructor: Morteza Eslamian
Office: EN 207C
Email: Morteza.Eslamian@tamucc.edu
Lecture: Monday 8- 8:50 am
Lab: Wednesday 8- 9:50 am
Office Hours: Mondays and Wednesdays, 11-12 am

Course Description:

- Engineering Essentials: Introduction to the engineering profession, ethics and disciplines; development of the skills in teamwork, problem solving and design; engineering communication
- Problem Paradigms: estimation, graphing guidelines, interpolation, statistics
- Introduction to major quantities such as Force, Pressure, Energy, etc. Base Units and Dimensions
- Spreadsheets: Introduction to Excel and application of Excel to manipulate data
- Simple programing using Matlab

Learning Objectives:

- Describe the roles and responsibilities of engineers, and what are expected of them
- Define professional and ethical responsibilities in the engineering profession and analyze ethical issues in case studies
- Analyze experiments and experimental data; Analyze processes using histograms and statistical process control techniques
- Identify and apply the basic principles of and scientific method of problem solving
- Demonstrate an ability to communicate effectively, technical writing and presentation
• Apply dimensional analysis techniques
• Use software tools such as Matlab and Excel to solve basic engineering problems

Textbook:
1. Elizabeth E. Stephan et al., Thinking Like an Engineer, Prentice Hall.
2. Class notes

Evaluation:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Presentation + Technical Writing</td>
<td>15%</td>
</tr>
<tr>
<td>Lab Reports/Lab Exams</td>
<td>25%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
</tbody>
</table>

Academic Integrity/Plagiarism:

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, and complicity or plagiarism. In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in Grade F. Students are expected to do their assignments individually unless specified otherwise.