Course Information and Syllabus

Instructor: Mr. Glen Thomas
5-1F Mechanical Engineering
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492-0016

CALENDAR DESCRIPTION: *2 (fi 4) (either term 1-2s-0).
Introduction to the profession of mechanical engineering with special emphasis of industries in Alberta, including coverage of elements of ethics, equity, concepts of sustainable development and environmental stewardship, public and worker safety and health considerations including the context of the Alberta Occupational Health and Safety Act. Selected guest speakers on design problems in mechanical engineering. Communication skills including written and oral presentations.

Lectures: MWF 10:00-10:50 in BS M 145
Presentations: MWF 10:00-10:50 (in MEC E 4-1 and 4-3) download class schedule from eClass for locations

Website: eClass – login link can be found on www.ualberta.ca main website page (top right-hand corner)

Office Hours: Mondays and Thursdays 09:00 – 16:30
Quick Questions – drop by office
Longer Discussions – please make an appointment by e-mail (Subject line: MEC E 200)

Textbook: None
Prerequisites: None

Academic Integrity
“The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.ualberta.ca/secretariat/appeals.htm) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.”

Evaluation: Grades based on work completed throughout term (See below for details). Assignment of grades will be based on the UofA Distribution of Grades in Undergraduate Courses (for 2nd-Year Courses) – as per UofA Marking and Grading Guidelines.

Late Policy: Late assignments (except the delivery of the presentation) are accepted according the following scale:
- One Day* Late - Minus 10%
- Two - Three Days Late - Minus 20%
- Four Days Late - Minus 40%
- Assignments handed in five days or more after the due date will NOT be graded, i.e., will receive a grade of zero.

*1 Day = 24 hours after deadline. If you hand in your assignment on Monday instead of Friday your penalty would be 20% since this would be three (3) days late. To avoid such late penalties, you can e-mail your assignment to the instructor over the weekend.

The submission of assignments, whether paper-based, electronic, or otherwise, is the sole responsibility of the student.

"Policy about course outlines can be found in Section 23.4(2) of the University Calendar."
Evaluation Summary for Grades (See Details on Next Page):

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Description</th>
<th>Notes</th>
<th>Due</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Oral Presentations*</td>
<td>a) Each student will give a 3-minute presentation</td>
<td>UNAIDED presentation, i.e., NO MS PowerPoint</td>
<td>See Schedule (posted on eClass)</td>
<td>5%</td>
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<td></td>
<td>b) Each student will give a 5-minute presentation followed by a 1-minute question period.</td>
<td>Students must obtain a passing grade in this element of the evaluation to pass the course. Examples given in class.</td>
<td>See Schedule (posted on eClass)</td>
<td>25%</td>
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<tr>
<td>2. Presentation Critiques</td>
<td>Students are responsible for completing comment sheets for each presentation.</td>
<td>Meaningful written comments are critical to receiving full credit for these critiques. Examples given in class.</td>
<td>At the end of class (each day)</td>
<td>10%</td>
</tr>
<tr>
<td>3. In-Class Work</td>
<td>In-class quizzes and/or written assignments will be given.</td>
<td>Will use a variety of assessment methods, e.g., multiple choice, short answer, etc.</td>
<td>At the end of class (unless instructed otherwise). See below for quiz dates (or see the posted schedule on eClass).</td>
<td>30%</td>
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<tr>
<td></td>
<td>a) Presentation Proposal</td>
<td>150-word description of topic for presentation</td>
<td>September 19, 2011</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>b) Topic Research</td>
<td>Bibliography (using standard format such as Chicago Manual of Style) of sources for presentation. Examples given in class.</td>
<td>October 5, 2011</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>c) Presentation Informative Abstract</td>
<td>150-word informative abstract outlining presentation topic. Examples given in class.</td>
<td>November 9, 2011</td>
<td>15%</td>
</tr>
</tbody>
</table>

*As explained in class, students MUST pass the “Oral Presentation” component of MEC E 200 in order to pass the course.
Evaluation Details:

GRADES based on completing the following (see marking guides on following pages):

1. Oral Presentations
   a. Satisfactory presentation of a 3-minute talk meeting the following criteria:
      i. NO props or technical aids will be allowed, i.e., students must present using only, at most, cue cards.
      ii. This presentation is meant to be an introduction to the experience of presenting before a group of people in preparation for the longer presentation (see 1.b.).
      iii. Students will pick a topic related to Mechanical Engineering. Students will be responsible to briefly introduce this topic as well as 2 possible technical points related to this area of interest.
      iv. Students can either use this same topic for their longer presentations or choose another topic.
      v. Mark determined by instructor using the scoring rubric attached below.
      vi. Presentation schedule and location posted on eClass (see Class Schedule).
      vii. VALUE = 5% OF FINAL GRADE
   b. Satisfactory presentation of a 5-minute talk that meets the following conditions:
      i. Students will pick a topic related to Mechanical Engineering. Students will be responsible to explain this topic using 2 main technical points related to this area of interest.
      ii. Two (2) technical points (min.) covered. Technical points are significant scientific or engineering concepts that would be worthwhile knowing if one were to talk intelligently about this topic. The meaning of “technical points” will be further explained in class.
      iii. Mandatory Slide #1: Topic relation to MEC E. One slide in the presentation must clearly outline and explain the link between the chosen topic and mechanical engineering, i.e., course curriculum.
      iv. Mandatory Slide #2: One library reference used in a significant fashion. The presentation must include, at least, one slide wherein the presenter clearly shows that he or she has made use of one of the sources obtained from the UofA on-line database. For example, a graph could be constructed based on data obtained from one of the references. In this case, the presenter would need to highlight that the data came from a particular reference that was found using the UofA on-line database. Examples will be given in class as well as on the course FAQ page.
      v. Presenter should be prepared for a 1-minute question period following presentation.
      vi. Copy of presentation e-mailed to instructor one (1) day PRIOR to presentation.
      vii. Mark determined by instructor using the scoring rubric attached below. Presentation packages (i.e., marked presentation abstract, marked presentation, and completed presentation (peer) critiques) will be returned once all student presentations have been completed.
      viii. Presentation schedule and location posted on eClass see Class Schedule.
      ix. VALUE = 25% OF FINAL GRADE

2. Presentation Critiques:
   a. Peer evaluations must be completed for each student presentation.
   b. The comment column must be entirely and meaningfully completed in order to receive credit for the evaluation.
   c. Unprofessional comments will result in no credit for the evaluation.
   d. Due at the end of class.
   e. VALUE = 10% OF FINAL GRADE

3. In-Class Work:
   a. Miscellaneous in-class quizzes and/or assignments will be given throughout the semester.
   b. Quizzes will be comprised of a combination of multiple choice, true/false, and/or short answer.
   c. Each quiz will cover all material presented in class since the last quiz. This includes material presented by the instructor AND guest lecturers.
   d. Quizzes are due promptly at the end of class (unless specified otherwise by the instructor).
   e. The weighting of any in-class assignment will appear on the assignment itself, i.e., as a percentage of the final grade.
   f. Quiz Dates (Fall 2011):
4. Writing Assignments:
   a. Topic Proposal
      i. 150-word description of topic for 5-minute presentation.
      ii. Introduce topic
      iii. Briefly explain topic and how it relates to mechanical engineering curriculum.
      iv. Outline some of the sources or research you’re going to use in order to learn about this topic.
      v. Explain your two technical points.
      vi. Try to anticipate some of the questions that may be asked after your presentation by listing, at least, three (3) plausible questions at the end of your description.
      vii. Once this assignment has been completed and passed, this will constitute “approval” of your topic for your 5-minute presentation.
      viii. A template will be e-mailed out for this assignment.
      ix. Grade determined using the 4-point scale (as described in the 4-Point General Marking Scheme).
      x. This assignment should be submitted in class (i.e., hard copy) on September 19, 2011.
      xi. Given the critical nature of this assignment (i.e., every student MUST have an approved topic), students can resubmit this assignment (choosing another topic) if the initial submission was rejected. No penalty will be assessed to resubmissions.
      xii. VALUE = 10%
   b. Topic Research
      i. Based on your approved topic (see topic proposal) research the subject of your presentation.
      ii. Create a bibliography for your presentation based on ten (10) sources of information.
      iii. Bibliography must use standard formatting such as IEEE, Chicago Manual of Style, etc.
      iv. Three (3) of your ten (10) sources must be from a peer-reviewed journal, e.g., Science, Nature, etc. Other sources can be used to complement this information. References are to be cited according to formatting found in standard writing style manuals, e.g., Chicago Manual of Style.
      v. This assignment should be submitted in class (i.e., hard copy) on October 5, 2011.
      vi. VALUE = 5%
   c. Presentation Informative Abstract
      i. 150-word informative abstract.
      ii. Mark determined by instructor using the scoring rubric attached below. Presentation packages (i.e., marked presentation abstract, marked presentation, and completed presentation (peer) critiques) will be returned once all student presentations have been completed.
      iii. This assignment should be submitted in class (i.e., hard copy) on November 9, 2011.
      iv. VALUE = 15% OF FINAL GRADE