ENGINEERING 1181 – Spring Semester 2015 Syllabus
Fundamentals of Engineering - I

Classroom: HI 308; Lab: HI 224; Student Computer Lab: HI 324

Course Objectives: ENGR 1181 is the first course in a two course sequence designed to provide students with knowledge of engineering fundamentals: technical communications, technical graphics, problem solving, the design process, data collection, and data analysis. The goal of the two-course sequence is to expand that knowledge to a point of maximum usefulness with respect to both students’ future academic work and their professional career. This course is divided into two segments: (1) Classroom and (2) Hands-on Laboratory. The courses involve both individual and team based performance.

Class Activities: Each week, students will be introduced to important engineering skills and given an opportunity to practice those skills. Class will include a short lecture, activity, and homework assignments. Assignments consist of pre-class readings, quizzes, and homework.

Lab Activities: Each week students will attend an 80 minute hands-on laboratory session. During the laboratory sessions, students will perform a variety of hands-on activities to expose engineering principles over various topics. Assignments may include gathering additional information from the internet or library, solving problems related to the lab work, and preparing lab memos and reports. Questions on important concepts covered in the laboratories will be included on the final exam. There may be time at the end of lab sessions for teams to work on lab write-ups or deliverables, when required.

Exams: Two mid-term exams and one final exam will be given. Exams are given closed book, closed notes, closed outside resources unless otherwise stated at the time of the exam. A portion of the exam may be completed on Carmen.

Participation: Individual and team-based evaluations will be conducted throughout the semester. Electronic journal entries are required and factored into the course grade. The final team evaluation results will also be a factor in assigning a final team grade. Attendance is mandatory for both components (Class and Labs). Students are subject to losing points for absences unless prior approval is obtained from the Instructor or Teaching Associate.

Grading: The contribution of each course segment to the overall course grade is outlined below. The University's grade scale is posted for students' reference.

<table>
<thead>
<tr>
<th>Class Assignments</th>
<th>28%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation/Quizzes</td>
<td>6%</td>
</tr>
<tr>
<td>Homework</td>
<td>22%</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Lab Assignments</th>
<th>27%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation/Quizzes</td>
<td>6%</td>
</tr>
<tr>
<td>Memos/Summaries</td>
<td>12%</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>3%</td>
</tr>
<tr>
<td>Problem Solving Project</td>
<td>6%</td>
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<table>
<thead>
<tr>
<th>Exams</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterms</td>
<td>20%</td>
</tr>
<tr>
<td>Final</td>
<td>20%</td>
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<table>
<thead>
<tr>
<th>Participation</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Team Evaluation</td>
<td>2%</td>
</tr>
<tr>
<td>Attendance</td>
<td>1%</td>
</tr>
<tr>
<td>Journals</td>
<td>2%</td>
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</table>

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numerical Grade</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.9</td>
</tr>
<tr>
<td>B+</td>
<td>87-89.9</td>
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<tr>
<td>B</td>
<td>83-86.9</td>
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<tr>
<td>B-</td>
<td>80-82.9</td>
</tr>
<tr>
<td>C+</td>
<td>77-79.9</td>
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<tr>
<td>C</td>
<td>73-76.9</td>
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<tr>
<td>C-</td>
<td>70-72.9</td>
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<tr>
<td>D+</td>
<td>67-69.9</td>
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<tr>
<td>D</td>
<td>60-66.9</td>
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<tr>
<td>E</td>
<td>&lt;60</td>
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Minimum Grade Requirements: A minimum grade of 50% is required in the following course components: Class Assignments, Lab Assignments, and Exams to receive a passing grade in this course. For example, a student with less than 50% credit in Class Assignments would not pass the course, even if the Lab and Exam scores were above 50%. Students must take each component seriously and complete the assigned work. Students can track their progress in the Carmen grade-book by ensuring that the grades are posted in the appropriate columns, and by checking the columns marked Cumulative Class, Cumulative Lab, and Cumulative Exam.

Note: This policy is independent of the overall course calculation that automatically appears in Carmen. Student’s overall grade must still be 60% or above.

Course Materials:
- **Book (At Campus Area Bookstores and digitally from www.wiley.com/go/engineeringvalue** click on General Engineering on the left side)
    - hardcopy ISBN: 978-1-118-62986-4
    - binder ready ISBN: 9781119028307 (only Ohio State bookstores)
- **EEIC Courses Website:** The EEIC Courses website contains course material including preparation documents, instructor’s presentations, in-class activities, and homework assignments. The site link is [eeiccourses.engineering.osu.edu/1181](http://eeiccourses.engineering.osu.edu/1181).
- **Carmen:** The Carmen website contains course material including grades and journals. The site link is [carmen.osu.edu](http://carmen.osu.edu).
- **Student Resource Guide:** This guide is available on the EEIC Courses website under Resources. It includes information which will help students be successful in this course. Some key components are:
  - Information on course organization and where to find all needed course materials
  - Software availability for personal computers
  - Computer labs and password policies
  - Remote access to the FEP network and software
- **Technical Communications Guide:** This guide is available on the EEIC Courses website under Resources. It includes information on the style and format which will be required for all written lab assignments including: executive summaries, memos, reports, and presentations. The guide also includes recommendations on technical writing.

Grading Guidelines:
- **General:**
  - If a student does not sign the Lab Participation Agreement when a team lab document (i.e. executive summary, lab memo, lab report, or project notebook) is submitted, they will receive a zero until they contact the GTA to discuss the issue. The student’s teammates may be given the opportunity to vouch for the student in question’s participation.
  - Students are required to attach the Lab Participation Agreement to all lab documents. If it is missing, points will be deducted from the final grade for that assignment as designated on the Grading Guidelines sheet.
  - Students are required to attach the corresponding Grading Guidelines to all lab documents. If it is missing, a 2% penalty will be applied to the assignment.
Any deviation from these guidelines must be approved by the class instructor. This includes any situation not covered in these guidelines or any special circumstances.

**Late Lab Documents:**
- **“On-Time Policy”:** The lab documents are due on a given date per the website at the beginning of lab. The GTAs (with the help of UTAs) will collect the lab documents within the first five minutes of lab. Lab documents due at the beginning of class should not be worked on during presentation or lectures.
- Late lab documents (without a valid, documented excuse) should be turned in at the next meeting time (lab or class) after they were originally due. For special situations, students should meet with his/her GTA to plan a later due date. Otherwise their assignment(s) will be considered late.
- Undocumented or invalid excuses for late lab documents should be graded as normal, but with a 30% penalty (e.g. if the student gets 80/100 before the penalty, the final grade will be \((80 - 30) = 50/100\)).
- Late lab documents cannot be redone.

**Re-dos:**
- There are no re-dos for lab documents in general, except for the first executive summary, for which the student is allowed to resubmit the assignment if their score is less than 72/80. The redone executive summary will be graded out of 80, but with a maximum grade of 90%. (e.g., the redone executive summary grade is a 75, but they would get a 72). The redone executive summary is due at the date shown on the website.

**Missed Labs:**
- If a student misses a lab without a valid, documented excuse, he/she should immediately meet with their instructor and GTA to discuss options.
- Any valid and documented absences must be approved by the instructor or GTA one week prior to the missed lab. Students are expected to make arrangements with the instructor or GTA to make up the missed lab.
- If the student has a valid excuse, the student will need to meet with their instructor and GTA to determine how their situation will be handled with a best attempt to make up the lab during another lab section.

**Late Homework:**
- **“On-Time Policy”:** The GTAs (with the help of UTAs) will collect the homework within the first five minutes of class. Homework due at the beginning of class should not be worked on or printed during presentation or lectures.
- Late homework (without a valid, documented excuse) should be turned in by the next meeting time (lab or class) after they were originally due. For special situations, students should meet with his/her GTA to plan a later due date. Otherwise their assignment(s) will be considered late.
- Undocumented or invalid excuses for late homework should be graded as normal, but with a 30% penalty (e.g. if the student gets 80/100 before the penalty, the final grade will be \((80 - 30) = 50/100\)).
**Makeup Exam and Quiz Policy and Guidelines:** All students are expected to take each exam at the regularly scheduled time.

**Allowed Accommodations:**
- **ILLNESS OR EMERGENCY ON EXAM DAY:** Students who are ill or have a family emergency (death or serious illness of a close family member) on the day of an exam will be allowed to take a makeup exam. Written documentation is required for illness or medical emergencies. Students must contact their instructor and GTA as soon as possible and WITHIN 24 HOURS after the exam. The makeup exam is usually scheduled with an open section in the same course.

- **UNAVOIDABLE CONFLICTS WITH EXAM TIME:** Such conflicts include another class scheduled to meet at the exam time, or participation in University sponsored events. Documentation of a conflict with the regularly scheduled exam time must be provided in writing one week prior to the day of the regularly scheduled exam.

If students miss an exam without a legitimate, documented excuse, students will receive a score of zero for that exam. Exceptions will be made only under unusual circumstances approved by the section’s instructor and the College Office for Academic Affairs. These policies are strictly enforced so that all students are treated equally and fairly.

**WRITTEN DOCUMENTATION** supporting the need for a makeup examination must be SIGNED by an appropriate person (e.g., physician, employer) with their NAME and TELEPHONE NUMBER or other contact details clearly printed on the document. Such documentation must be submitted to the course instructor for approval.

**No Show, Lateness, or Illness:**
1. A student who misses a scheduled exam without a written excuse may reschedule the exam through his/her GTA or instructor, provided the following conditions are met:
   a. The student contacts his/her GTA or instructor on the same day as the scheduled exam, and
   b. The student takes the exam within 24 hours of the original exam time.

   **Note:** An automatic 20% penalty will be applied to the exam score.

2. A student who is late for his/her scheduled exam has two options:
   a. Take a seat quietly and begin the exam regardless of how much time remains; no additional time will be granted; no penalty will be applied to the exam score.
   b. Reschedule the exam for the full allotment of time according to conditions in #1 above, including a 20% penalty applied to the exam score.

**First Year Engineering Student Computer Lab (HI 324):** In addition to the classrooms and labs, students will have access to the First Year Engineering Student Computer Lab located in Hitchcock Hall Room 324. This lab can be used for assignments and lab reports, as it contains MATLAB, SolidWorks, Excel, and Word. Students may not install any software onto, or copy any software from the lab computers. **Food and drink are not permitted in the lab.** Violation of these policies will result in expulsion from the lab.
   - The door is unlocked the following hours: **Monday - Thursday 7:30 am – 5:30pm** and is accessible using students’ Buck ID during other hours.
   - There is a free tutoring service offered by the UTA’s to First Year Engineering students Monday - Friday in HI 324 per the posted schedule. The tutors may not answer direct homework or lab questions, but can assist in understanding of concepts.
Online Evaluation Tools:

Journal Entries: Journals are located on Carmen under Activities: Quizzes. Students will be asked to respond to prompts about aspects of the class. The journals include multiple choice questions, short answer questions, and essay responses. Journals are due each week on Sunday night at 11:59 PM. All entries will be read and summarized by the instructors and GTAs and kept confidential beyond the instructional staff. Students’ responses are used to assess the use of technology in the classroom, and to measure student satisfaction of the instructional team, teaching styles, curriculum decisions, policies, and programs. Students are encouraged to be honest and leave constructive feedback. If students have a complaint, they should follow it with a suggestion for improvement or cite exactly where the problem is. Students should be clear and precise in their comments.

Team Evaluations: There will be two mid-semester team evaluations and one final team evaluation. These will be during the weeks of the midterm and final exams. Students will receive an e-mail from their GTA with instructions. As part of each evaluation, students will rate teammates in several areas of teamwork skills. The mid-semester evaluations do not count towards their grade but act as a tool to monitor how their group views teammates’ contributions. The final team evaluation will count towards the grade. If students need to change their working habits, they should do so quickly. **There is a 10% deduction for not completing the evaluation.**

Quizzes: There will be no make up quizzes.

Student Permission for Program Publicity: During participation in the First-Year Engineering Program, photographs, printed material, and videotapes may be made for the purpose of informing the university community and the general public about activities in the College. Student images in the above media may be used to promote College programs and to make public announcements of student accomplishments and those of other students. If students do not wish for their image to be used, they should contact eeic@osu.edu.

Academic Misconduct: Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University’s Code of Student Conduct and this syllabus may constitute academic misconduct.

The Ohio State University’s Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: “Any activity that tends to compromise the academic integrity of the University, or subvert the educational process.” Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University’s Code of Student Conduct is never considered an excuse for academic misconduct, so it is recommended that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If your instructor suspects that a student has committed academic misconduct in this course, he/she is obligated by University Rules to report suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University’s Code of Student Conduct (i.e., committed academic
misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact your instructor.

Other sources of information on academic misconduct (integrity) to which you can refer include:
- The Committee on Academic Misconduct web pages (http://oaa.osu.edu/coam.html)
- Ten Suggestions for Preserving Academic Integrity (http://oaa.osu.edu/coamtsuggestions.html)
- Eight Cardinal Rules of Academic Integrity (www.northwestern.edu/uacc/8cards.html)

**Official Ohio State Sexual Harassment Policy:** The University administration, faculty, staff, student employees, and volunteers are responsible for assuring that the University maintains an environment for work and study free from sexual harassment. Sexual harassment is unlawful and impedes the realization of the University's mission of distinction in education, scholarship, and service. Sexual harassment violates the dignity of individuals and will not be tolerated. The University community seeks to eliminate sexual harassment through education and by encouraging faculty, staff, student employees, and volunteers to report concerns or complaints. Prompt corrective measures will be taken to stop sexual harassment whenever it occurs.

Source: http://hr.osu.edu/policy/policy115.pdf

**Students with Disabilities:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact your instructor privately to discuss your specific needs. Please contact Student Life Disability Services at 614-292-3307 in room 150 Pomerene Hall to coordinate reasonable accommodations for students with documented disabilities.