ENGINENIGE 1182 – Spring 2015
Fundamentals of Engineering II

Instructor: Dr. Harrison Smith - Morril Hall 366 - smith.3738@osu.edu - 614-352-4717 (last resort, please!)
Lab and Classroom: Library Classroom Building, Room 230 (Lecture) & 227 (Lab)

Course Objectives: ENG 1182 is the second course in a two course sequence designed to provide you 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 your future academic work and your professional career. This course is divided into three segments: (1) Classroom, (2) Hands-on Laboratories, and (3) Project Work Time. The courses involve both individual and team based evaluation.

Class Activities: For the first <NUMBER OF WEEKS>, you will be introduced to various drafting and technical communication skills and given an opportunity to practice those skills. Assignments will be made in each session and will be due either in class or on the date indicated by your instructor.

Lab Activities: Additionally, during the first <NUMBER OF WEEKS> weeks students will attend 110 minute Hands-on Laboratory sessions. Assignments will involve solving problems related to the lab work, and preparing lab memos and reports. Each assignment will be graded. Questions on important concepts covered in the laboratories will be included on exams.

Project Work: At the conclusion of the classroom and lab work, the remainder of the course time, both lab sessions as well as class sessions will be dedicated to project work time. Details of the project are outlined in the Project Description document.

Exams: Two mid-term exams will be given. Exams are given closed book, closed notes, closed outside resources unless otherwise stated at the time of the exam.

Grading: The contribution of each course segment to the overall course grade is outlined below. The University’s grade scale is posted below for your reference. Please note that the upper range of the numerical grade is the cut-off for that letter grade (e.g. 92.9% is an A- grade)

<table>
<thead>
<tr>
<th>Class Assignments</th>
<th>20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>In-Clas Assignments</td>
<td>5%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>4%</td>
</tr>
<tr>
<td>Journals</td>
<td>1%</td>
</tr>
<tr>
<td>Exams</td>
<td>20%</td>
</tr>
<tr>
<td>Design Project</td>
<td>55%</td>
</tr>
<tr>
<td>Proposal</td>
<td>3%</td>
</tr>
<tr>
<td>Initial Design Paper</td>
<td>3%</td>
</tr>
<tr>
<td>Progress Checks</td>
<td>4%</td>
</tr>
<tr>
<td>Final Design Paper</td>
<td>6%</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>2%</td>
</tr>
<tr>
<td>Lab Reports</td>
<td>12%</td>
</tr>
<tr>
<td>Project Notebook</td>
<td>25%</td>
</tr>
<tr>
<td>Teamwork</td>
<td>5%</td>
</tr>
<tr>
<td>Contest Results</td>
<td>+5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numerical Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-93</td>
</tr>
<tr>
<td>B+</td>
<td>87-90</td>
</tr>
<tr>
<td>B</td>
<td>83-87</td>
</tr>
<tr>
<td>B-</td>
<td>80-83</td>
</tr>
<tr>
<td>C+</td>
<td>77-80</td>
</tr>
<tr>
<td>C</td>
<td>73-77</td>
</tr>
<tr>
<td>C-</td>
<td>70-73</td>
</tr>
<tr>
<td>D+</td>
<td>67-70</td>
</tr>
<tr>
<td>D</td>
<td>60-67</td>
</tr>
<tr>
<td>E</td>
<td>&lt;60</td>
</tr>
</tbody>
</table>
**Attendance:** Attendance is mandatory for all class and lab days. Students are subject to losing points for absences unless prior approval is obtained from your Instructor or Teaching Associate.

**Course Materials:**

- **Required Materials:**
  - Book (At Campus Area Bookstores)
  - Engineering 1182.01 Student Course Packet (*Purchase at campus bookstore*)
  - Arduino Development Kit (Purchased from Amazon, or the like. See Project Document)

- **Recommended Items:**
  - Storage Medium – USB flash drives
  - Mechanical pencils, ruler (inches and metric)

**Technical Communications Guide:** This guide is available on the EEIC website and includes information on the style and format which will be required for memos, reports, and presentations.

**Makeup Exam Policy and Guidelines:** All students are expected to take each exam at the regularly scheduled time.

**Allowed Accommodations:**

1. **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. You must contact your teaching staff as soon as possible and certainly WITHIN 24 HOURS after the exam. The makeup exam is usually scheduled with an open section in the same course.

2. **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 you miss an exam without a legitimate, documented excuse, you will receive a score of zero for that exam. Exceptions will be made only under unusual circumstances approved by the section’s professor 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, parent) with their NAME and TELEPHONE NUMBER or other contact details clearly printed on the document. Such documentation must be submitted to the course professor 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:
   - The student contacts his/her GTA or instructor on the same day as the scheduled exam, and
   - 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:
   - 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.
   - Reschedule the exam for the full allotment of time according to conditions in #1 above, including a 20% penalty applied to the exam score.
**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 you do not wish for your image to be used, please contact eeic@osu.edu.

**Academic Misconduct:** Cheating or plagiarism will be reported using official University procedures. With respect to all written assignments and oral presentations, the material must be relevant to and support the course objectives. Inappropriate language and visuals will not be tolerated. Policies and procedures can be found in a Synopsis of the Code of Student Conduct included in each semester’s Master Schedule Book. The Code of Conduct is printed in the Student Handbook and Student Telephone Directory. Copies may be obtained from the Office of Student Judicial Affairs, 2050 Drake Union.
  o All cases of suspected misconduct must be reported to the University Committee on Misconduct. Any students observing misconduct should report such to the course instructor.
  o The Code of Student Conduct defines Academic misconduct to include
    - Violation of course rules,
    - Providing or receiving information during quizzes or exams,
    - Submitting plagiarized work,
    - Falsification, fabrication, or dishonesty in reporting research results.
  o Students need to know that faculty is obligated to report all misconduct cases to the University Committee on Academic Misconduct. This is not an option.
  o For purposes of Academic misconduct, the Associate Dean for Academic Affairs will act as the Department Chair in any reported cases.
  o The College of Engineering encourages collaboration among students. However, work turned in as an individual must be the product of that person.

**Methods to Determine the Quality of Individual Work:**
1. Can the student explain and/or demonstrate how to complete each step or element of a problem or exercise?
2. Did the student complete the work using his/her own words and terms?
3. Can each person complete the end product for themselves as an individual or explain the process involved?

**Official Ohio State Academic Misconduct Code:** Committee on Academic Misconduct
Academic misconduct is defined as any activity which tends to compromise the academic integrity of the institution, or subvert the educational process. **The First Year Engineering Program takes Academic Misconduct very seriously.** Examples of academic misconduct include, but are not limited to:
  o violation of course rules as contained in the course syllabus or other information provided the student; violation of program regulations as established by departmental committees;
  o providing or receiving information during quizzes and examinations such as course examinations and general examinations; or providing or using unauthorized assistance in the laboratory, at the computer terminal, or on field work;
  o submitting plagiarized work for an academic requirement. Plagiarism is the representation of another’s works or ideas as one’s own; it includes the unacknowledged word for word use and/or paraphrasing of another person’s work, and/or the inappropriate unacknowledged use of another person’s ideas; **see an expanded definition at the end of the syllabus**
  o falsification, fabrication, or dishonesty in reporting research results;
  o serving as, or enlisting the assistance of, a “ringer” or substitute for a student in the taking of examinations;
  o alteration of grades or marks by the student in an effort to change the earned grade or credit.
  o alteration of University forms used to drop or add courses to a program, or unauthorized use of those forms

Source: [http://oaa.osu.edu/coam.html](http://oaa.osu.edu/coam.html)
Ten Suggestions for Preserving Academic Integrity:

The following suggestions will help you preserve academic integrity by avoiding situations where you might be tempted to cheat or you might be perceived to be cheating (see http://oaa.osu.edu/coam/ten-suggestions.html and http://oaa.osu.edu/coam/faq.html for more information).

1. ACKNOWLEDGE THE SOURCES THAT YOU USE WHEN COMPLETING ASSIGNMENTS.
2. AVOID SUSPICIOUS BEHAVIOR.
3. DO NOT FABRICATE INFORMATION.
4. DO NOT FALSIFY ANY TYPE OF RECORD.
5. DO NOT GIVE IN TO PEER PRESSURE.
6. DO NOT SUBMIT THE SAME WORK FOR CREDIT IN TWO COURSES.
7. DO YOUR OWN WORK.
8. MANAGE YOUR TIME.
9. PROTECT YOUR WORK AND THE WORK OF OTHERS.
10. READ THE COURSE SYLLABUS AND ASK QUESTIONS.

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: Course materials and exercises can be made available in alternative formats. Please contact the instructor or the Office for Disability Services (ODS) for further information. Test accommodations may include, but are not limited to:

- Adaptive technology
- Scanned exams
- Extended time
- Braille
- CCTV
- Large print
- Computer
- Reader
- Raised table
- Scribe
- Tape recorded exam
- Distraction reduced space

ODS facilitates exam accommodations in cooperation with instructors.

For exam accommodations through ODS:
- Obtain a "Proctor Checklist" from ODS for each course. New Proctor Checklists must be obtained each semester. They do not transfer from semester to semester.
- Have your instructor fill out the "Proctor Checklist" completely including signatures required (refer to specific instructions on the back of the form). Incomplete checklists may result in exams not being scheduled.
- Give your instructor the pink copy of the checklist after being completed and before bringing the white and yellow copies to ODS.
- Personally bring (do not mail) all completed Proctor Checklists to ODS at the beginning of each semester to schedule exams for the entire semester or at least within five days of your exam or quiz. You are more likely to get your accommodations, equipment, or space that you need.

Failure to notify ODS of cancellations or changes of scheduled exam times subjects you to possible loss of exam accommodations through ODS. Please refer to the "Policy for No Show, Lateness, or Illness" in the link below for detailed information.

Source: http://www.ods.osu.edu/services_exam.asp