

ENGR 1100 – INTRODUCTION TO ENGINEERING

Fall 2019

Syllabus

Instructor: Bill Saari

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Office Hours: 11:00am - 12:50pm on Mondays; 11:00am - 11:50am on Tuesdays, Wednesdays, and Thursdays

Course Website: <http://www.ar.cc.mn.us/saari/engr1100>

Course Description

This course provides an introduction to the engineering profession. Information on the different disciplines of engineering will be presented. Professional and ethical aspects of engineering will be covered. An introduction to problem solving and the engineering design process with the utilization of various computer applications will be covered.

Major Areas of Course Content

1. The engineering profession and the fields of engineering
2. Innovation and creativity in solving engineering problems
3. The engineering design process
4. Engineering ethics
5. Engineering curricula
6. Robotics

Learner Outcomes

1. Develop an understanding of the engineering profession and the different fields of engineering
2. Understand and apply the engineering design process
3. Understand professional and ethical issues associated with the engineering profession

Grading (200 total points)

Assignment 1: Interview/Research Paper (40 points)

Assignment 2: Engineering Ethics (40 points)

Group Project: Robot Design (60 points)

Exam: Civil, Mechanical, Computer/Electrical Engineering (60 points)

- A: 180 – 200 points
B: 160 – 179 points
C: 140 – 159 points
D: 120 – 139 points
F: < 120 points

Exam

The exam will be multiple choice, closed book, and closed notes. There will be no make-up exams except under extreme cases determined at the discretion of the instructor. In order to be even considered for a make-up exam, you must contact me on or prior to the scheduled date for the exam.

Assignments:

Late assignments can be submitted for half-credit up to two weeks after the due date. No assignments more than two weeks late will be accepted. Assignments submitted by e-mail will **NOT** be accepted. If you are unable to submit an assignment in class, you can submit it at my office, in my mailbox in Room H245, or through D2L.

Academic Dishonesty

With the exception of the group project, I expect the work you turn in to be your own efforts. Instances of academic dishonesty will be dealt with according to the regulations of Anoka-Ramsey Community College.

Class Conduct

You are expected to be courteous towards the instructor and your classmates. You are expected to be on time for lecture. Cell phones should be turned off and put away during lecture. You should not talk to your classmates while I am talking or while one of your classmates is asking a question. If you have a question about the course material, ask me and I will be more than happy to answer your question.

Tentative Course Schedule

Date	Topics	Assignments
Aug 26	Introduction to the Engineering Profession Fields of Engineering	Start Assignment 1
Sep 2	No Class	
Sep 9	Civil Engineering	
Sep 16	Mechanical Engineering	
Sep 23	Computer Engineering, Electrical Engineering, and Computer Science (DARPA Video)	Submit Assignment 1
Sep 30	Exam Engineering Design Process	
Oct 7	Group Project	Start Group Project
Oct 14	Group Project	
Oct 21	Group Project	
Oct 28	Group Project	
Nov 4	Group Project Presentations	Group Project Due
Nov 11	No Class	
Nov 18	Aerospace Engineering X-Prize Video	
Nov 25	Engineering Ethics	Start Assignment 2
Dec 2	Chemical Engineering Nuclear Power Video	Submit Assignment 2
Dec 9	Engineering Curriculum and Transfer	
Group Project Presentation: Wednesday, December 18, 4:10 – 6:10pm		