

ENGINEERING 10 Syllabus

Spring 2023 - (sections 4763 & 4770)

Santa Rosa Campus, Santa Rosa Junior College, Santa Rosa CA, USA OR ONLINE via ZOOM!

4763 - 112 Kunde Hall Santa Rosa Campus- Thursday 3:30 pm - 5:30 pm

4770– ZOOM only - Thursday 7:00 pm - 9:00 pm

Introduction to the Engineering Profession

Instructor: Tony Martin - Associate Instructor

Email: amartin@santarosa.edu

Office Hours: After every class (15 mins) & by appointment

Course Goals

1. Improve the peer environment by building students into a supportive and enthusiastic academic community.
2. Develop the study, communication, and organizational skills that will bring success in your current academic career and your future engineering career.
3. Orient the students to the environment and resources of this college and other engineering schools.
4. Motivate students through an increased awareness of the opportunities and rewards of a career in engineering.

Grading

Grades are based on Class engagement/participation (you have to come to class at a minimum!), Homework, Oral Report, and Final Invention Project.

Total Points = **1700 points.**

16 x 40 class engagement =640 = 37.7% of grade (graded via attendance and engagement)

50 Resume/30 Cover Letter = 80 = 4.7% of grade (in Canvas)

220 Orals =220 = 12.9% of grade (in Canvas)

13 x 40 regular homeworks =520 = 31.8% of grade (in Canvas)

240 Final Invention Project =240 =14.1% of grade (in Canvas)

(Total and change in content may occur due to circumstances beyond my control such as wildfires, cataclysms and such)

- 40 points lost for each missed class or lack of engagement IN class. (>4 missed classes drops 1 letter grade!)
- 20 points lost for each time late to class. (>10 minutes)
- 40 points at risk on any individual assignment, except Resume and Cover Letter which are 50 and 30 respectively.
- Up to 20 points lost for a late assignment, dependent on teacher discretion for exemption!
- 220 points at risk for your oral presentation.

A	>90%
B	>80%
C	>70%
D	>60%
F	<60=%

Class Engagement requires Attendance and IS GRADED

This is a participatory class not a lecture class and you are expected to engage with the instructor, other students, and provide your own unique inputs. Engineering is team based, and so it this class!

- You will learn from your fellow classmates and your own investigations; you have to be here to do that. *Learn how to network, work with others, will help you survive and prosper.*
- Most days will involve group activities, discussions, and presentations.
- Students missing two consecutive days without notifying the instructor risk being dropped from the class.
- If you are late or miss a class, you will lose points.

There are no excused absences, but plenty of opportunities to make up points.

If you end up needing more makeup points, we can sort out ideas about make-up activities.

Make-up activities are flexible; come up with something you would find valuable & then check it with me. We do have the default option of additional HW assignments, per check in with me.

Class Visitors, and in person or virtual field trips

AS can be arranged, we will have Class visitors, Guest Speakers and possibly Field Trips, goal of at least three. Students frequently find these visits by working engineers sharing their “lessons learned” as the most rewarding activity in the whole class. (modified, we are on Zoom, we hope to have guest lecturers via Zoom, and have had some great visits in the past!).

Individual Assignments

All work will be turned in Via CANVAS.

Make sure you know how to use CANVAS and if you don't, ask your fellow students, and for SRJC support info.

The goals of the assignments are to expose you to resources, ideas, and information and GUIDE you in doing essential research about whether Engineering is for you, what kind you might like, how you can pay for it, etc.

All work you would need to do anyway and this way you get class credit!

I encourage you to adjust the assignments to what you would benefit from most (i.e. you are welcome to slant your assignments into your areas of interest.)

example: If you are dreaming of going to UCLA, perhaps pick that as your Oral or Homework assignment (Oral is only if not already selected by a prior student).

All assignments must be fully responsive to requested information, so read assignment carefully and address all items. Include URL or contact information on sources, people, or companies.

Points can be lost for being late (up to 20 points) or for poor effort.

Generally, almost all students follow these common sense rules and get all their assignments checked off for full credit.

Earning “bonus” or “make-up” points is possible, but would not suggest relying on that, as if you have trouble getting the work done, you will have trouble getting even more work done!

Oral Presentation: 220 points

Each student in the class will make a short 5-minute presentation to the rest of the class.

- Sign-ups for the various topics and dates will be made on the second day of class.
- The topics are: a field of engineering, how something works, a local company, an engineering school, an engineer you interviewed, or an ethics scenario.

Final Exam/Project: 240 points for your final.

- INVENTION PROJECT done as a TEAM of 2 to 6 classmates, plan early on finding partners!