

Introduction to Engineering

Semester 1/2

2023-2024

Course Information:

CTE Course Industry Sector & Career Pathway:

Engineering and Architecture - Engineering Design

Class Schedule: Period 7 - 2:39pm - 3:30pm

Grades: 9-12

Course Hours: 2 Semesters, 360 Hours

Course Credit: 4 Credits/Semester

Course Overview:

This course's goal is to demystify engineering and what it entails to students. The course is designed around the engineering process where we will be practicing this process through smaller project based learning. Our goal is to go over eight of the different fields of engineering to learn fundamentals to expose students to what may be an interest to pursue in higher education or post-high school careers. Students will be actively working on projects week to week to get hands-on experience practicing what they've learned about each field of engineering.

How to find Success in this Course:

1. **Be Curious.**
2. **If you find something you like, dive in!**
 - a. The course is meant to expose types of engineering to students so if you find one you like, there are always opportunities to continue to use it in further projects.
3. **Make friends!**
 - a. This is a very collaborative course where we will continue to work in groups to create projects! No project is done alone in the real world, so let's practice that now!

Resources for Success in this Course:

1. [Class website](#)
2. Google Classroom
3. [Yearlong schedule of lecture and projects](#)
4. AWS Cloud 9 IDE - for website documentation

Recommended Materials:

Listed below are recommended materials for students taking *Introduction to Engineering*. These materials are not required, and full participation in the course does not require the purchase of any of these materials. State law requires us to provide a public education free of charge. Subject to certain exceptions, the right to a free public education means we cannot require students or their families to purchase materials, supplies, equipment or uniforms for any school activity, to pay security deposits for access, participation, materials, or equipment, or to make donations to a class, activity or program.

Recommended Materials:

- Laptop of your choice
 - District provided Chromebook is completely acceptable and accessible

Teacher Philosophy: I am here to help you learn! The more time you put in, the more I can help you. This subject is such a fascinating area of study and can benefit you anywhere you want to go. So why not learn a little! :D

CV School Wide Behavior Expectations, Academic Honesty, and Discipline Policies may be found here:

<https://www.gusd.net/domain/1302> or scan the QR Code below.



CV Policies: School policies are distributed to all families at the beginning of the year, and are also available in the Parent/Student Handbook on the school website: www.cvhsfalcons.com

PBIS The Falcon Way: (Suggestion: Instead of a long list of Do Not's, share a short list of expectations positively framed --for example: Be Safe, Be Respectful, Be Responsible. Provide a few examples of what this may look like in your class.)

Behavior:

Students are expected to show respect to me and their peers. Examples of misbehavior are (but not limited to):

1. Bullying another student
2. Cheating - talking during a quiz, looking up quiz information
3. Cheating - copying labs from a neighbor
4. Removing/altering files from another student's work
5. Inappropriate use of photographs or language

Any "Cheating" violations will, at a minimum, result in the student's grade being determined solely by their quiz average.

CTE Program Technology Statement:

The CTE lab features several expensive and irreplaceable pieces of equipment, tools, technology, and materials. Students are incredibly fortunate to have access to this type of equipment at the middle and high school levels. ALL lab equipment must be respected and cared for at all times. Work areas must be cleaned up and materials returned to their proper locations near the conclusion of each class period. All materials and equipment checked out to students for use at home or at school must be checked back in the same condition as when it was received. Accidental damage to lab equipment must be reported to the instructor immediately. Students should immediately report accidental damage, as there are no consequences for true accidents in the lab. Accidents do happen unexpectedly on occasion and are part of the learning process. However, students found to be deliberately damaging, abusing, defacing, vandalizing, or stealing materials, tools, and/or equipment will be responsible for reparation equal to the current replacement cost of the materials (BP 6161.2). To preserve the longevity of the lab equipment and the program, there is no tolerance for students who do not respect and care for the lab equipment, as they take away opportunities from deserving students.

Grading Policy:

I firmly believe that **grades aren't everything**. Grades should be an accurate **representation of your understanding** of the material at hand. Quizzes are just assessments for me to know where we are as a class and individually how each student is doing.

Below is the grading breakdown of the course and the grading scale:

Activity	% of Grade	Expectation
Website Update	30%	Completion of weekly website updates
Projects	30%	Completion of in-class lab activities
Challenges	20%	Completion of in-class challenge and analysis
Quizzes	10%	Good performance on quizzes
Worksheets	10%	Completion of worksheets given
Total	100%	

A	$\geq 90\%$
B	$\geq 80\%$
C	$\geq 70\%$
D	$\geq 60\%$
F	$< 60\%$

Attendance: Attendance is tracked through labs and challenge completion. When you're in attendance, you're getting credit for the work you do.

Best Way to contact the teacher:

Email: jpoole@gusd.net

Discord: In class link

Google Classroom

Office Hours: Tuesdays 3:30pm-4:30pm

Home-Teacher Communication Plan: GUSD schools and classes report home every five weeks via progress reports, these reports will notify parents and students if a student is in danger of failing.

Beyond these reports, parents and students can access student's grades via my [public spreadsheet](#). These are updated intermittently. This is as transparent as I can be with my grading scheme. If you have inquiries about grades, I would love to have the student chat with me about what we can do to work on better understanding the material.

Grade website: <https://jacobpoole.net/Grades>

Course Schedule:

A full timeline of the schedule of the course can be found on my website here: <https://jacobpoole.net/EngSchedule>

Student-Parent Contract

Crescenta Valley High School
Introduction to Engineering
Mr. Jacob Poole

Student:

I have received a copy of the course syllabus. I agree to abide by all of the standards, requirements and classroom rules.

Student Name _____ Student Signature _____

Parent:

I have read and discussed this syllabus with my student. My student and I are aware of the expectations of this course. I give my student permissions to participate in all activities and discussions related to this course.

Parent Name _____ Parent Signature _____

Instructor:

My promise to the student is to do my best to teach students material, give them relevant coursework to practice material, and correctly and fairly assess students' learning. I enjoy this course and I look forward to sharing my knowledge with you all.

Instructor Jacob Poole 