



Honors Principles of Engineering Course Syllabus

Credit Hours: 1 Weighted Credit, meets CTE or elective requirement.

Academic Term: 1 Year: 1st and 2nd Semester (July 22, 2019 – May 20th, 2020)

Instructor: Mr. Jason Sixkiller

Office and Tutor Hours: 2:20 – 3:30 M-W; Please notify instructor if you plan on attending office hours as I might have additional school responsibilities.

E-mail: jason.sixkiller@husd.org messages will be addressed within 24-48 business hours.

Telephone: 480-279-7422; incoming calls are directed to voicemail. Please leave a message and I will return your call within 24-48 business hours.

Deliverables

1) Parent Syllabus E-Receipt

Upon reading through this syllabus, [click here](#) to access the parent syllabus E-Receipt.

2) Student Safety Agreement

Two copies of the agreement will be provided. This must be signed by both you and a parent or guardian before you can participate in the laboratory.

3) Student Plagiarism Agreement

Two copies of the agreement will be provided. This must be signed by both you and a parent or guardian.

Course Description:

Honors Principles of Engineering (POE) is a foundation course of the high school engineering pathway. This survey course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics.

The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students have the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills.

Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

Course Materials:

- Single subject notebook (Quad-ruled is preferred)
- Calculator - A calculator is highly recommended. At minimum, a scientific calculator is needed. I believe a calculator is an investment and may be used in all math and science subjects in high school and college. I suggest TI-84, TI-84 plus, or TI-Nspire CX (CAS models are not permitted for many tests like the ACT).
- Pencils with erasers and pens
- A valid email (appropriate address name)
- Recommended at home: Access to a computer online

Grading:

Formative Assessments	40%
Notebook, Labs, Assignments	
Summative Assessments	40%
Projects, Quiz, Midterm	
Final Exam	20%
Total	100%

Grades

Percentage	Grade
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
Below 60	F

Formative Assessments (assessments for learning):

Assignments:

Assignments will be done frequently and worked on in and outside of class. Assignments will typically be completed individually. Many assignments will require the use of resources from the classroom desktop computers. Students will be provided sufficient time when an assignment requires use of the computer lab.

Notebook:

All students will need to maintain a bounded notebook for IED exclusively. The notebook will contain sketches, project notes, key terms, brainstorming, and design procedures. Notebooks need to be organized and detailed. Notebooks will be checked frequently.

Summative Assessments (assessments of learning):

Project:

There will be a projects throughout each semester. Projects will be individual or team

assessments. Students are expected to use class time to successfully complete their projects because they will need to use classroom resources and peer collaboration. Students who fail to meet project milestones will need to meet with the instructor outside of class hours.

Quizzes:

Quizzes will be given for each unit that assesses a student's understanding of the course. Students are not permitted to use notes or assignments on quizzes. Calculators may be used.

Midterm:

A midterm exam will be given midway through each semester.

Final Exams:

Final exams will be given at the end of each semester. Final exam dates TBA. The semester 2 final exam is an End-of-Course exam.

Students will be provided with a reference sheet during final exams. Calculators can be used. Final exam re-takes are not permitted. Early final exams will not be administered.

Make up final exams - If you will be absent for a final exam, you will need to complete and submit the Higley High School Late Finals Request form to the main office. Failure to take a missed final exam will result in a zero.

Late Work:

- Excused Absence - students have the number of days absent plus one day to make up missed work.
- Unexcused absence - students have the number of days absent plus one day to make up missed work with a 50% deduction

Retakes

- Summative Assessments (including final exam) – No Retakes
- Formative Assessments – Students have 7 days to retake

Behavior:

Respect for teachers, students, the learning process, and our campus is expected at all times.

Classroom Rules:

- Cell phone use is permitted only for educational purposes
- No food or gum
- Only water is permitted
- Be on time
- Work to the bell. Do not line up at the door.
- Earbuds are permitted only during individual worktime
- 10-10-10: No one leaves the classroom the first **10** minutes of class, last **10** minutes of class, and student is absent if late more than **10** minutes.
- One person to the restroom at a time. Students must sign out/in.

All school rules outlined in the student handbook as they pertain to electronics, dress code, food and drink, language, and behavior will be strongly enforced in this class. Students who do not adhere to the school rules, classroom expectations or interrupt the educational process will first be given a verbal warning, then be assigned ASD, and finally receive a referral to administration.

Absences:

A student will be considered absent from class if they enter the classroom more than ten minutes after the designated start time. If the student has a valid reason to be late to class, it will be an excused absence. The absence will be considered unexcused if the student is late without being excused by the school administration or the parent signing in the child late.

Tardy Policy

If you are tardy to class, your entrance is disruptive to the learning process, and you miss information necessary for your success. After 3 tardies, students will be given after school detention. Students who are more than 10 minutes tardy will be marked absent.

Discipline

The following consequences exemplify the order of actions taken by the instructor when a student violates the HHS Student Code of Conduct (includes tardies)

- 1. Student Conference**
- 2. Student Conference, Parent Phone Call, and After School Detention Warning**
- 3. After School Detention with teacher**
- 4. Office Referral**

Teacher Page:

[Click here](#) to access my teacher website. The course information (syllabus) and contact information will be located here.

Canvas:

All of the course curriculum will be accessed through Canvas. [Click here](#) to access Canvas or go to husd.instructure.com. Students will access to the course site and parents will have access as well. Parents will need a 6 digit pairing code from their students.

Grades:

Parents and students may check their grades on Synergy. [Click here](#) to access Synergy. Contact the office if you do not have access to Synergy. Grades will be updated by 3:30 every Monday.