



Chandler Unified School District

EGR105A Honors Intro to Engineering Design

SY 2023-24



Course Overview

Course Description

In this pre-engineering course, students use a problem-solving model to improve existing products and invent new ones. They learn how to apply this model to learn how to solve problems in and out of the classroom. Using sophisticated three-dimensional modeling software, students communicate the details of products. Students will also be introduced to Robotics via Lego Mindstorms. Emphasis is placed on analyzing potential solutions and communicating ideas to others. Industry certification may be offered in this course.

AP/IB/Dual Enrollment

This not an AP, IB, or Dual Enrollment course.

Prerequisite/Fee(s)

\$20

Course Materials

Graphing Notebook

Pen and/or Pencil

3 Ring Binder or Folder to Hold Class Handouts

Optional: Flash Drive

Course Attire: Students are responsible for the following

N/A

Adopted Resource(s)

Project Lead the Way Online Curriculum "Introduction to Engineering Design"

**An asterisk will indicate a resource containing sexually explicit materials per legislative definitions. CUSD has determined that all resources listed above are of exceptional educational value.*

Site and Faculty Information

School name and address:

Perry High School, 1919 E Queen Creek Rd, Gilbert, AZ 85297

Building principal:

Heather Patterson

patterson.heather@cusd80.com

Teacher:

Tim Beatty BSEE

beatty.timothy@cusd80.com

Office hours: 2:15-3:15 M-Th

Course Access

This course is taught in-person at Perry High School. Students will have access to the curriculum and instruction in the classroom. Google Classroom is the primary location for students to access material when absent from classes taught in person.

Equipment Usage Agreement:

Students will receive training for the proper use and care of all equipment. I understand that while my student uses school equipment, they are responsible for its care. If school equipment is damaged, lost, stolen, or destroyed under my student's care, I further understand that my student and I will be responsible for the replacement or cost of repair of the damaged equipment.

CTE Program Responsibilities:

Career & Technical Student Organization (CTSO)

Career & Technical Student Organizations (CTSOs) are co-curricular organizations that help enrich applied academics, communications, and teamwork. Students in CTE programs can participate in CTSO leadership activities and competitive events.

This program is aligned with the following CTSO: SkillsUSA.

Industry Credentials

CTE programs allow each student to earn an industry certification aligned to their CTE program area. This CTE program will offer the following industry credential(s) for all students by program completion:

Autodesk Inventor Professional

Technical Skills Assessment (TSA)

Technical Skills Assessments (TSA) are an Arizona Department of Education high-stakes state assessment designed for each program area. The TSA is to certify and document student attainment of industry-validated knowledge and skills through online testing. The TSA is taken after the CTE program (year 2 or 3) of each program.

Non-Discrimination Clause/ Aviso de no discriminación

The non-discrimination clause can be accessed using the link or QR code (www.cusd80.com/Page/983)



Help

Academic Support

- Contact the teacher to schedule an appointment during office hours
- [Ed Tech](http://www.cusd80.com/Page/45109) support for students, parents/guardians, and community link ([cusd80.com/Page/45109](http://www.cusd80.com/Page/45109))

Mental Health Support

- CUSD mental health support [cusd80.com/Domain/10528](http://www.cusd80.com/Domain/10528) or 480-573-8808 (talk or text)
- Suicide & Crisis Lifeline: 9-8-8 hotline
- 24-hour Crisis Line Talk: 602-222-9444, Text: 741-741

Student Conduct, Success, and Responsibilities

Student Handbook

Students must follow the policies and procedures established in the Student Handbook. Copies of the handbook can be found at [cusd80.com/handbooks](http://www.cusd80.com/handbooks). Printed copies will be provided upon request.

Student Responsibilities

No food or drink. (We are a lab environment)
Cell phones put away.
Active participation in assignments, notes, discussions, labs, etc.
Treat others the way you want to be treated

Late work

Only late work for the current quarter can be turned in.
The instructor reserves the right not to accept late work more than 1 week after it's due.

Assessments and Assignments

Students will complete assessments during each unit of study to assess their understanding. Students will complete the CUSD Common Final at the end of the first and second semesters. The Common Final will count for 20% of the student's final semester grade in grades 9-12 and 10% in grades 7-8 (some exceptions may apply at the Junior High level). Common finals will be in ELA, Math, Science, Social Science, and World Language.

Final exams will be given during the CUSD Jr High/High School Early Dismissal days in December and May, as identified on the [District Calendar](#).

If students are requested to participate in a survey, the survey questions will be provided to parents/guardians seven days before student contact.

Grading

Grade Percentage

A	B	C	D	F
90% - 100%	80% - 89%	70% - 79%	60% - 69%	<60%

Quarter grades

80% of the grade is coursework, 20% is professionalism (participation, behavior, notebooks, weekly progress reports)

Semester grades

Semester grades are calculated using 40/40/20: Each quarter accounts for 40% of the semester grade and the final exam accounts for the remaining 20%.

Units of study

Units for EGR105A Honors Intro to Engineering Design

Design Process
CAD fundamentals
Visualization and Solid Modeling
Technical Sketching and Drawing

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Parents/Guardians should indicate if they "Acknowledge" or have a "Potential Conflict" with their student's participation in the following units by checking the appropriate box for each unit of study listed. Students cannot opt out of a standards-based unit. Marking "Potential Conflict" will prompt the teacher to make contact regarding assignment alternatives.

Unit of study	Acknowledge	Potential Conflict
Design Process	<input type="checkbox"/>	<input type="checkbox"/>
CAD fundamentals	<input type="checkbox"/>	<input type="checkbox"/>
Visualization and Solid Modeling	<input type="checkbox"/>	<input type="checkbox"/>
Technical Sketching and Drawing	<input type="checkbox"/>	<input type="checkbox"/>

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Parent/Guardian

Acknowledgment

By signing and returning this form, the parent/guardian acknowledges they have reviewed the resources and units of the study included in the syllabus.

- ☐ As the parent/guardian, I understand that I may contact the teacher if I have questions about the resources, content, or units of study.
- ☐ As the parent/guardian, I understand I can check my student's grades in Infinite Campus anytime during the school year.

Student name (printed)

Student signature

Parent/Guardian name (printed)

Parent Signature

Date

Please return this page to your student's teacher.