

Engineering Design & Development (EDD)
Syllabus & Course Expectations
2020-2021



COURSE DESCRIPTION

Engineering Design and Development (EDD) is the capstone course in the PLTW high school engineering program. It is an engineering research course in which students work in teams to research, design and develop an original solution to a valid open-ended technical problem by applying the engineering design process. At the end of the course, student teams must submit a final written report as well as report and defend their final solution to outside reviewer panel (trade show). In addition, students will complete smaller projects during first semester.

EXPECTATION of STUDENTS

Students are expected to follow all classroom procedures as well as the school wide policies for behavior.

- **Synchronous expectations:**
 - Synchronous Instruction shall be defined as a student or a group of students engaged in learning at the same time using technology that allows the teacher and student to connect in real-time to deliver:
 - Timely actionable feedback to students.
 - Direct instruction to students through video conferencing.
 - Teacher guided peer-to-peer learning.
 - Whole or small-group instruction.
 - Students are expected to participate in class with both audio and video and complete all assigned synchronous work.
 - Student attire must be school appropriate
 - Student Backgrounds (virtual or real) must be school appropriate and not a distraction to the learning environment
- **Asynchronous expectations:**
 - Asynchronous Instruction shall be defined as:
 - Learning done on student's own time or schedule.
 - Students work independently.
 - Self-guided instructional modules.
 - Pre-recorded lessons.
 - Discussion, emails or chats that aren't happening in real time.
 - Students are expected to complete all assigned asynchronous work.
- **Late Work Policy:**
 - Students can submit work up to 5 school days without a late work penalty

- For students with IEP/504, extended time is based on the assignment's due date per the IEP/504 plan for legal and compliance purposes.
- **Attendance:**
 - Students are expected to attend all class periods and will be marked "absent" if not in attendance.
 - If you are absent it is your responsibility to check google classroom and complete the work that you missed. You may get additional help for a missed class during flex time or office hours. The best way to get missed work is to download the work from Google Classroom. Work not turned in while you were absent will not be counted as late as long as it is turned in the day you return to school. If you are absent on the day of a test/quiz you must make-up the test or quiz on the day you return (after school or during lunch). If you are absent on the day of a lab or activity you must make up the lab during a teacher scheduled time.

CLASSROOM POLICIES

- Assignments (Asynchronous & Synchronous)
 - Assignments will be assigned daily and will be submitted on Friday of each week
 - I strongly suggest that you circle any problems that you get wrong in the homework and complete these problems again when studying for an assessment
- Labs (Asynchronous & Synchronous)
 - Labs are an integral part of a chemistry class and will take part frequently.
 - If a student is absent on the day of a lab then they can make up the lab on a designated day determined by the teacher and still receive full credit.
- Assessments (Synchronous)
 - The dates of upcoming quizzes/tests will be found on the unit calendar posted in Google Classroom.
 - **If a student is absent on the day of a quiz/test, then they can make up the missed quiz/test on the day of their return.**

ACADEMIC HONESTY

believes that personal integrity is basic to all solid achievement and that students will reach their full potential only by being honest with themselves and others. also believes that academic integrity is basic to the progress of the school community toward rich learning and the respect of outside communities. expects all students to respect the educational purposes underlying all school activities and also expects administration, faculty, and staff to provide an environment that encourages honesty. Students must know that their teachers will not ignore or condone academic dishonesty and that every such incident will be penalized. Faculty and staff members who witness or suspect an incident of academic honesty are expected to report it to the Advisor and/or Administrator. Consequences include, but is not limited to, a grade of zero on the compromised assignment, completion of a comparable assignment for no course credit, parent notification, RJ circle, academic probation, the loss of honor society eligibility, final grade of W or F in the course.

CONCEPT CATEGORIES

Students will be assessed for the following EDD Concepts listed below.

SEMESTER 1	SEMESTER 2
<p>Personal Website/Blog What's the Problem?</p> <ul style="list-style-type: none"> ○ Individual Research and Presentation of an innovative solution. <p>Capstone Project</p> <ul style="list-style-type: none"> ○ Research a Problem ○ Design a Solution 	<p>Capstone Project</p> <ul style="list-style-type: none"> ○ Create a Prototype & Testing Plan ○ Evaluate & Reflect on the Design Process ○ Present the Design Process ○ Beyond EDD <p>Patent Research</p>

GRADING

Grades will be broken down into four grading categories:

60 % Assessments (Projects + Presentations)

40 % Assignments (Website/Blog + Homework)

**Note: The above syllabus is only intended for distance learning. If and when we return to in person learning an additional syllabus will be sent out for updates.*

**Note: the instructor reserves the right to make additions, changes and deletions to the syllabus during the course of the year as appropriate for student learning.*