**PLTW Engineering Design and Development (EDD): Course Syllabus (2020-2021)**

**Engineering and Science University Magnet School (ΣSUMS)**

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Additional Help: (typical availability after school or consult with me.)

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**COURSE DESCRIPTION**

Engineering Design and Development (EDD) is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. This course is part of the Project Lead the Way (PLTW) engineering curriculum, a capstone project. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The (EDD) course allows students to apply all the skills and knowledge learned in previous pre-engineering courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in critical thinking and problem-solving skills, time management and teamwork skills, a valuable set of skills for students' future careers in the field of engineering, design, and development.

**GRADING**

Your grade is based on a point system. For example: if the assignments' points for the marking period total 892 points, and you earned 697 points, your grade is \( \frac{697}{892} = .781 = 78.1 = \text{C+} \)

- Projects will be based on a scale of 1 to 957 points depending on the assignment or project.
- Daily work and participation grades will be based on completion of the Engineering Notebook, Portfolio, and, classwork and group work.
- Each group is required to submit weekly progress reports.
- Each group is required to create a PowerPoint Presentation and display board.
- Each group is required to defend their solutions to a panel of outside reviewers.
- All students must maintain a detailed Engineering Notebook and Portfolio to pass the class.

**REQUIRED MATERIALS (Students shall have these items in class every day)**

- Pen (Blue or Black ink)
- Pencil
- Engineering Notebook (provided)
- 3 Ring Binder/Composition Notebook/Spiral Notebook to take notes
- Folder to keep reference information

**COMPUTER USE**

- The computers are the property of the school district and are intended for student instruction, not personal use.
- Students will be assigned a desktop.
- Students are expected to handle computers with care and respect.
- Students are to report any problems with the desktop to the teacher when they arise.
- Students are to use the Internet for schoolwork only.
- Students are not to misuse the computers such as: sending unauthorized messages, vandalizing the laptop, altering a software program, playing games, etc.
- Students are not to download or upload anything to a school program (programs, games, etc.
- Students are not to change the desktop screen.
- Any violation of this computer policy will result in the student losing her/his privilege to use the computer.

**STUDENT EXPECTATIONS – (Every Day)**

- Proper uniform attire.
- Students are to come to class and be ready to THINK!
Students are to follow all District and school rules as outlined in the student handbooks.

- Students are to be on time for class. If students are not on time, they must have a pass. No pass will mean a referral to administration.
- Students are to be prepared with the required materials.
- Students are not to talk while the teacher (or anyone else) is talking.
- Authorized electronics only.
- Professionally always conduct yourself.
- No chewing gums.
- No food or drink during class.
- Students are not to leave the class without permission.
- No book bags are to be at the tables or computers.

**STUDENT SUBMISSION OF ASSIGNMENTS:**

- **Due date/time** - Assignments are due by 11:59 p.m. in the Learning Management System (LMS).
- **Missed Assignments** - On the due date of the assignment, a “0” will be entered in the PowerSchool for the assignment. If work is not submitted within five days it will remain a “0”.
- **PowerSchool and Google Classroom** – Students and parents should check PowerSchool often so that there are no “surprises”. Students and parents can monitor and manage due dates and grades. The Late Work policy will be strictly enforced.
- **Late Work** – Students have five days after the due date to submit the assignment. After the five days, the assignment grade is a zero
- **Academic Dishonesty** – Students will receive a grade of zero (0) for submitting dishonest work. District and ESUMS’ policies will be enforced.
- **Attendance/Missed Classes** – It is the student’s responsibility to see the teacher immediately upon returning to school to get the information covered in class during their absence and to plan to take a missed test or quiz.
- **Independent Work** – PLTW’s EDD curriculum requires students to work independently outside of the classroom.
- **Classroom** - Students will not be allowed to leave the EDD class to do work in another class. Students can only do EDD work in EDD class.
- **Field Trips** – The ESUMS’ engineering department’s policy is that students will not get the teacher’s permission to go on field trips if their grade is below a C average at the time of the trip. Academically required trips, such as Ed Connections, are an exception.

**Teacher/Student/Parent Conferences** – It recommended that a student has a conference with the teacher before the teacher and parent have a conference. Discussions during a conference will concern: (1) a student not receiving the desired grade for an assignment that was submitted on time, and (2) a student is continuing to have difficulty learning the material, after seeing me for extra help.

**Extra Credit** – Extra credit is at the discretion of the teacher. However, no extra credit will be considered if there are “missing” assignments.

**Class Preparedness** – Students should always come to class prepared. He/She should have a pen or pencil, and paper/notebooks. Students will not be able to go to the locker to get items needed for class.

**FREQUENTLY ASKED QUESTIONS**

Q. I do not have internet access at home, how will I complete my assignment?

A. Use your time effectively and efficiently in class. Use the help times and other teacher’s help times afterschool at ESUMS. There are also public libraries and college libraries for students who are taking college classes.

Q. Will I still get a zero on my assignment if I tried to upload my assignment and something happens and you don’t receive it before 11:59 p.m.?

A. Yes. Do not wait until the last minute to submit your assignments. Give yourself at least 24 hours’ leeway.
Q. Can I submit my assignment by hand?
A. NO. Submit assignments online.

Q. How can I improve my grade?
A. By seeing your teacher during help times.

Q. When can I come to see you get help?
A. During the times listed at the top of this syllabus.

Q. Will I get a zero if I am absent and do not submit an assignment when it is due?
A. Yes. The assignments are online. Do not wait until the last minute to start your assignments. Adequate time is given to complete the assignments. One absence should not hinder you.

Please Note: Dr. Panchal has the right to modify this syllabus at any time.