

Course Responsibilities and Expectations Outline

PLTW Engineering Design & Development

John Jay High School

Department of Technology Education

Mr. Butler

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Contact Information: 2020-2021

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Class Website: <http://www.wappingersschools.org/johnjay>
(Navigate to "Teachers" → "Butler" → "PLTW EDD")

Course Description:

Engineering Design and Development – EDD (T775) is a full year, full credit capstone course for the Project Lead The Way Pathway to Engineering program. This course involves extensive research in designing and constructing solutions to an open ended engineering problem. In EDD you will work in teams to research, design and construct solutions. You will apply principles developed in the preceding courses and are guided by mentors. You must present progress reports, submit a final written report and defend your solutions to a panel of outside reviewers at the end of the school year.

Course Weight/Rank: 1.06

Prerequisite: Completed two other PLTW courses

Course Objectives:

The intent of this course is to prepare you for college and beyond involvement in a real "project development lifecycle" experience. Much of the course work must be done outside the classroom. In the high school environment, which is a structured schedule, passing between classes and hall passes, is not exactly like the college or the industrial world. In order to best model industry, you will be granted the privilege of being able to go where you need to go to get your work done.

Topics to be Covered:

- Design Process
- Product Scheduling
- Patent Search
- Patent Registration and Development
- Product Life Cycle
- Presentation Techniques
- Data Collection
- Data Presentation
- Prototype Planning and Construction
- Testing and Evaluation of Products
- Interview Process
- Decision Matrix Construction
- Material Price Lists
- Confidentiality/Non-Disclosure Agreements
- Graphical Timeline Mapping

Class Sessions and Assignments:

Virtually: Classes will meet every school day during our assigned time period. Instruction will last approximately 10-25 minutes with remaining time for students to complete activities and meet with their teams.

Face-to-Face: Class will meet regularly in room 167: Technology Department Communications Lab, and occasionally meet other labs for prototype creation and testing purposes.

Assignments will include both short exercises and longer more involved projects. There will be assigned reading and occasional written assignments. Students should be prepared to discuss their work and their decision-making processes. While there will be time allotted during most class periods for working on assignments, know that **OUT-OF-CLASS TIME WILL BE REQUIRED** to complete some assignments. Technology Labs will be available to students to work on projects during free periods

(study halls, lunch periods, after school, etc...) Use your time wisely!

Tardiness:

Class starts on time! Attendance will be taken at the beginning of class. Excessive tardiness will impact your overall class participation and performance.

Attendance:

Attendance in class is required; it is also school policy! As a lab-based course, regular attendance and participation is critical. Excused absences for medical or other extenuating reasons must be cleared by instructor for arrangements to make up missed work. Any work that is missed due to an absence must be made up by the student. Missing class does not excuse you from turning in projects on time. Remember, repeated absences and tardiness not only hurts you, but your teammates as well.

Class Cuts:

If a student is present in school and is not present in class constitutes for a class cut. Class cuts will be taken seriously and will result in referral. Acquired cuts will result in administrative action. Student class participation grade will be greatly affected (20 points per class cut). If student has an early dismissal or legal class absence, it must be registered with the school attendance office 845.897.6700 x30054.

Project Due Dates:

Project dates will be announced for every assignment. Late assignments will not be accepted in this course.

Behavioral Code:

These are in addition to the guides set forth in the Student Handbook.

- Engaging in illegal behavior using lab equipment will result in permanent removal from the facility.
- Students are expected to conduct themselves in a courteous and professional manner at all times.
- You are solely responsible for backing up all your work (Constantly Saving). Losing your work due to lack of saving/backup is not acceptable. You are responsible for verifying all files you turn in.
- You are liable for any equipment you break.
- Do not operate equipment, use tools or materials until you have instructed to use.
- Food and Drinks are not allowed in the Labs. It is a disaster waiting to happen.
- No profanity

Electronic Devices:

The following is taken from the Student Code of Conduct book:

Radios, tape players, MP3 players, cell phones, and other electronic devices may be confiscated and stored for the day. The district is not responsible for lost/stolen items. Cell phones must not be visible and turned off during the scheduled school day.

From administrative directive to all staff on 10/25/06:

There are to be no visible cell phones or electronic devices present in the halls, classrooms, study halls, and cafeteria. Such devices should be confiscated and sent to the student's administrator as soon as possible. Please label all devices with student's name and grade level. First time offenders will receive the device back at the end of the day. Subsequent offenders will have devices released to parents who come in to pick them up.

Intellectual Integrity:

Plagiarism is unacceptable and will result in a zero as well as disciplinary action. "Intellectual Ownership" should be respected at all times. See the district policy for more information.

Grading Criteria:

Tests and Quizzes:

- Tests will always be announced
- Quizzes may be unannounced

Performance

- Measures what you do in class each day

Portfolio

- A complete portfolio of all work done in class will be organized into a 3-ring binder
- Do not throw any course material away. All course handouts, notes, test, and quizzes should be kept within your portfolio
- Portfolios will be collected and graded on completeness and organization throughout the semester.

Projects

- Projects will be graded heavily
- Grading Rubrics will be included for each assignment

A (100-90): Outstanding, dedicated effort, extremely successful work-both in concept and execution. Work is turned in on time, and sets a standard for other students.

B (89-80): Good to very good work exhibiting understanding of subject matter, better than average performance with some evidence of going beyond the basic requirements.

C (79-70): Acceptable work. Assignments show some potential, but not conceptual or technically carried through fully. Average effort.

D (69-60): Poor or incomplete work. Minimal effort, marginal understanding.

F (59 and below): Unacceptable work, incomplete or lacking understanding of material.

Supplies:

Most supplies will be provided by the school district; however students are expected to have:

- Engineering Journal (Quadrille Notebook with Gridlines)
- Black Pen for Engineering Notebook
- Small 3-Ring binder for class portfolio
- 8GB or larger Flash Drive (Recommended)

Department of Technology/Computer Lab Code of Conduct:

The Department of Technology's computer Lab consists of digital video editing stations, access to digital video cameras, scanners, DVD players/recorders, and professional software. Please respect this equipment and the facility it resides in. The Technology Department faculty would like to keep this lab safe and clean to ensure others have a positive educational experience. If you fail to comply with the classroom code of conduct and rules as outlined in your student handbook, you may be in jeopardy of losing your privilege to use equipment. Please refer to the John Jay Technology Department "Specific Computer Use Guidelines" and District Computer Use guide for more information.

Technology Lab Computer Use

In addition to the John Jay Technology Department "Specific Computer Use Guidelines" students should not abuse the lab privileges. Computers are used for class work and research only. Computers will NOT be used for:

- Internet Surfing
- Instant Messaging
- Personal Email
- File Sharing
- Games
- Music/Video downloading and streaming
- Program Downloading

Student activity can be recorded, tracked, observed, and managed by the John Jay Technology Department staff and district Technology Support Services (TSS) staff. Students engaging in illegal lab behavior will result in discontinuation of computer use, Internet use, and administrative action will be taken. Student could be in jeopardy of failing course.

TO STUDENTS

I have read, understand, and agree to comply with the above responsibilities:

Student Name: _____

Student Signature: _____

Date: _____ Class Period: _____

TO PARENT/GUARDIAN

I have also read, understand, and agree to support the course responsibilities and requirements listed above:

Parent Name: _____

Parent Signature: _____

Parent Phone: _____

Parent Email: _____

