

**EL DORADO UNION HIGH SCHOOL DISTRICT  
EDUCATIONAL SERVICES  
Course of Study Information Page**

COURSE TITLE <b>Honors PLTW: Engineering Design &amp; Development (EDD)</b>																		
DISTRICT COURSE NUMBER <b>0538</b>		4-DIGIT STATE COURSE CODE (COMPLETED BY SILT) <b>6012</b>																
Rationale:	Honors 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 design and develop an original solution to a valid open-ended technical problem by applying the engineering design process. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology																	
Course Description that will be in the Course Directory:	Utilizing the activity-project-problem-based (APPB) teaching and learning pedagogy, students will perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams of students will design, build, and test their solution. Finally, student teams will present and defend their original solution to an outside panel. While progressing through the engineering design process, students will work closely with a community mentor and experts and will continually hone their organizational, communication and interpersonal skills, their creative and problem solving abilities, and their understanding of the design process.																	
How Does this Course align with or meet State and District content standards?	The Project Lead the Way curriculum, including Introduction to Engineering Design, focuses on making math and science relevant for students. The approach used is called APPB-learning (activities, projects, and problem-based learning). By engaging in hands-on, real-world projects, students understand how the material covered in class can be applied in their everyday lives. Learning activities will include teacher-led instruction, cooperative learning, and project-based learning. Technology will be used to enhance students learning, and provide real-world applications. EDD should be taken as the final capstone PLTW course since it requires application of the knowledge and skills from the PLTW foundation courses.																	
NCLB Core Subjects:	<i>Select up to two that apply:</i> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Arts</td> <td><input type="checkbox"/> Civics and Government</td> <td><input checked="" type="checkbox"/> Not Core Subject</td> </tr> <tr> <td><input type="checkbox"/> Economics</td> <td><input type="checkbox"/> History</td> <td></td> </tr> <tr> <td><input type="checkbox"/> English</td> <td><input type="checkbox"/> Mathematics</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Foreign Language</td> <td><input type="checkbox"/> Reading / Language Arts</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Geography</td> <td><input type="checkbox"/> Science</td> <td></td> </tr> </table>			<input type="checkbox"/> Arts	<input type="checkbox"/> Civics and Government	<input checked="" type="checkbox"/> Not Core Subject	<input type="checkbox"/> Economics	<input type="checkbox"/> History		<input type="checkbox"/> English	<input type="checkbox"/> Mathematics		<input type="checkbox"/> Foreign Language	<input type="checkbox"/> Reading / Language Arts		<input type="checkbox"/> Geography	<input type="checkbox"/> Science	
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CDE CALPADS Course Descriptors:  (See Page 2 for Definitions)	CTE TECH PREP COURSE INDICATORS <input type="checkbox"/> Tech Prep (32) (Higher Ed) <input type="checkbox"/> Tech Prep & ROP(33) (Higher Ed) <input type="checkbox"/> ROP (30) <input checked="" type="checkbox"/> N/A	CTE COURSE CONTENT CODE <input type="checkbox"/> CTE Introductory (01) <input type="checkbox"/> CTE Concentrator (02) <input checked="" type="checkbox"/> CTE Completer (03) <input type="checkbox"/> Voc Subject _____ <input type="checkbox"/> N/A	INSTRUCTIONAL LEVEL CODE <input type="checkbox"/> Remedial (35) <input type="checkbox"/> Honors UC-Certified (39) <input type="checkbox"/> Honors Non UC-Certified (34) <input checked="" type="checkbox"/> College (40) <input type="checkbox"/> N/A															
Length of Course:	<input checked="" type="checkbox"/> Year <input type="checkbox"/> Semester																	
Grade Level(s):	<input type="checkbox"/> 9 <input type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12																	
Credit:	<input checked="" type="checkbox"/> Number of credits: <b>10</b> <input checked="" type="checkbox"/> Meets graduation requirements (subject <b>CTE</b> ) <input checked="" type="checkbox"/> Request for UC "a-g" requirements CSU/UC requirement <b>g</b>		<input checked="" type="checkbox"/> College Prep															

Prerequisites:	0535 Intro to Engineering and 0536 Honors Principles of Engineering Recommended Geometry completed with a grade B or better 0537 Honors PLTW Computer Integrated Mfg.
Department(s):	Non-Departmental
District Sites:	UMHS
Board of Trustees COS Adoption Date:	May 9, 2017
Textbooks / Instructional Materials:	Supplemental Materials
Funding Source:	General
Board of Trustees Textbook Adoption Date:	N/A

### Definitions

CALPADS	California Longitudinal Pupil Achievement Data System
CTE Technical Prep	A course within a CTE technical career pathway or program that has been articulated with a postsecondary education or through an apprenticeship program of at least 2 years following secondary instruction.
Instructional Level Code	Represents a nonstandard instructional level at which the content of a specific course is either above or below a 'standard' course instructional level. These levels may be identified by the actual level of instruction or identified by equating the course content and level of instruction with a state or nationally recognized advanced course of study, such as IB or AP.
Instructional Level Honors, UC Certified	Includes all AP courses.
Instructional Level Honors, non UC Certified	Requires Board approval.
Instructional Level College	Includes ACE courses. Equivalent to college course and content, but not an AP course. Not related to section, but to course.