

Project Lead The Way [PLTW] Engineering Design and Development

PEIMS Code: N1303749

Abbreviation:EDD
Grade Level(s): 112
Award of Credit1.0

Approved Innovative Course

- x Districts must have local board approval to implement innovative courses
- x In accordance with Exas Administrative Code (TAC) §74s2hooldistricts must provide instruction in all essential knowledge and skidlsntified in this innovative course
- x Innovative courses may only satisfigetive credit toward graduation requirements
- x Please refeto TAC§74.13for guidance on endorsement

Course Description:

Engineering Design and Development (EDD) is an **epde**d engineering research course in which students work in teams to design and develop an original solution to **addition** and justified openended problem by applying an engineering design process using the knowledge and skills they developed in previous dvs u d uee2ss(o)-6.7 (.8 (s Td (-)T-4.37.6t)0.8 (t91 (y)-7.q.2 (n)-6.7 (t91 (y)-



Project Lead The Way [PLTW] Engineering Design and Development

- (3) This course prepares students for college, a career, or the military by helping them become better problem-solvers. Sudents learn how to manage projects and further develop their transferrable skills, such as communication and ethical reasoning. They also develop professional skills, such as time management, organizational skills, and the ability to justify or defend their ideas.
- (4) Students are encouraged to participate in extended learning experiences, such as career and technical student organizations and other leadership or extracurricular organizations.
- (5) Statements that contain the word "including" referencement that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.
- (c) Knowledge and Skills.
 - (1) Critical and Creative Proble Stolving. 6 (h(e)) \$TUdend of the restreates and aptilled the 36 (9):63 (1) Tible (2) (4):63 (1) Fiber (2) (4):63 (1) Fiber

Project Lead The Way [PLTW] Engineering Design and Development					



Project Lead The Way [PLTW] Engineering Design and Development

- (A) evaluate and describe their personal contributions and collaboration effectiveness within a team;
- (B) describe the purpose and positive outcomes of a peer review process;
- (C) describe the characteristics of effective feedback; and
- (D) describe the various individual roles and interdependencies of a collaborative team.
- (11)Collaboration. The student manages project timelines and resources as part of an engineering design process. The student is expected to:
 - (A) explain the process of project management and the important elements such as timelines, schedules, task assignments, and identification and mitigation of potential risks in the effort to complete a project on time;
 - (B) develop a project plan using a project planning tool such as a Gantt chart; and
 - (C) selectand use a system of collaborative tools such as cloud

Project Lead The Way [PLTW] Engineering Design and Development					