

Civil Engineering and Architecture (PLTW)

8430 36 weeks

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Course Description

Suggested Grade Level: 11 or 12

Prerequisites: 8439

In this specialization course for Project Lead the Way (PLTW), students collaborate on both the development of community-based building and design projects and conceptual design for project presentations.

Curriculum Framework

Project Lead The Way (PLTW) curriculum guides and course competencies are only available to PLTW affiliated schools through agreement with PLTW. To obtain additional information contact: Project Lead The Way 3939 Priority Way South Drive, Suite 400 Indianapolis, IN 46240 Toll Free: 877.335.PLTW (7589) Local: 317.669.0200 <https://www.pltw.org>

Entrepreneurship Infusion Units

Entrepreneurship Infusion Units may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”

Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- College and Work Readiness Assessment (CWRA+)
- Design and Pre-Construction Assessment
- Engineering Technology Examination
- National Career Readiness Certificate Assessment
- Pre-Engineering/Engineering Technology Assessment
- Project Lead the Way End-of-Course Assessments
- Workplace Readiness Skills for the Commonwealth Examination

Concentration sequences: *A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.*

- Introduction to Engineering Design (PLTW) (8439/36 weeks)
- Technical Drawing and Design (8435/36 weeks)

Career Cluster: Architecture and Construction	
Pathway	Occupations
Construction	Construction and Building Inspector Construction Manager Project Manager
Design/Pre-Construction	Architect Building Code Inspector Civil Engineer Cost Estimator
Maintenance and Operations	Construction Manager General Contractor Project Manager

Career Cluster: Government and Public Administration	
Pathway	Occupations
Planning	Urban and Regional Planner
Regulation	Environmental Compliance Inspector

Career Cluster: Science, Technology, Engineering and Mathematics	
Pathway	Occupations
Engineering and Technology	Architect Civil Engineer Engineering Manager Environmental Engineer Petroleum Engineer Project Manager Statistician Systems Analyst Transportation Manager
Science and Mathematics	Ecologist Environmental Scientist Geodetic Surveyor