

# Digital Electronics (PLTW)

8440 36 weeks

Copyright © 2017

## Course Description

**Suggested Grade Level:** 10 or 11 or 12

**Prerequisite:** 8439

Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented.

## 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+)
- Electronics Module: AC (EM2) Examination
- 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: Science, Technology, Engineering and Mathematics	
Pathway	Occupations
Engineering and Technology	Aerospace Engineer Aerospace Engineering Technician Computer Hardware Engineer Electrical Engineer Electrical Engineering Technician Electro-Mechanical Technician Electronics Engineering Technician Engineering Technician Manufacturing Systems Engineer Mechanical Engineer Nuclear Engineer