

Industry Credentials, Concentration Sequences, and Career Clusters

Principles of Engineering (PLTW)

8441 (36 weeks)

Industry Credentials:

These apply only to 36-week courses.

- College and Work Readiness Assessment (CWRA+)
- 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**. 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. Students wishing to complete a specialization may take additional courses based on their career pathways.*

- Engineering Practicum IV (8453/36 weeks)
- Introduction to Engineering Design (PLTW) (8439/36 weeks)

Career Clusters, Career Pathways, and Occupations:

- Science, Technology, Engineering and Mathematics
 - Engineering and Technology
 - Aerospace Engineer
 - Aerospace Engineering Technician
 - Biomedical Engineer
 - Civil Engineer
 - Civil Engineering Technician
 - Electrical Engineer
 - Electrical Engineering Technician
 - Electro-Mechanical Technician
 - Engineering Technician
 - Materials Engineer

- Mechanical Engineer
 - Mechanical Engineering Technician
 - Nuclear Engineer
 - Petroleum Engineer
 - Power Systems Engineer
- Science and Mathematics
 - Materials Scientist