

Aerospace Engineering (PLTW)

8428 36 weeks

Acknowledgments

The components of this instructional framework were developed by the following curriculum development team members:

Georgina Bingaman, Woodgrove High School, Loudoun County Public Schools
Ervin Myrick, Hampton High School, Hampton City Public Schools
Katrina Owens, Tuscarora High School, Loudoun County Public Schools
Terri Sanchez, Aviation Academy, Newport News Public Schools
Brian Whayland, Grassfield High School, Chesapeake Public Schools

The framework was edited and produced by the CTE Resource Center:

Kathryn G. Koerner, Writer/Editor
Kevin P. Reilly, Administrative Coordinator

Dr. Lynn Basham, Specialist, Technology Education and Related Clusters
Office of Career, Technical, and Adult Education
Virginia Department of Education

Lolita B. Hall, Director
Office of Career, Technical, and Adult Education
Virginia Department of Education

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Course Description

Suggested Grade Level: 10 or 11 or 12
Prerequisites: 8439

In this specialized course for Project Lead the Way (PLTW), students are taught about aerodynamics, astronautics, space-life sciences, and systems engineering through hands-on engineering problems and projects. The course is designed to follow the foundation courses: Principles of Engineering (8441) and Introduction to Engineering Design (8439).

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

- CAD Assessment
- College and Work Readiness Assessment (CWRA+)
- 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)

Career Cluster: Science, Technology, Engineering and Mathematics	
Pathway	Occupations
Engineering and Technology	Aerospace Engineer Aerospace Engineering Technician Computer Software Engineer Electro-Mechanical Technician Engineering Technician Human Factors Engineer Materials Engineer Power Systems Engineer Quality Technician Systems Analyst

Career Cluster: Transportation, Distribution and Logistics	
Pathway	Occupations
Transportation Operations	Flight Engineer
Transportation Systems/Infrastructure Planning, Management and Regulation	Aerospace Engineer Pilot