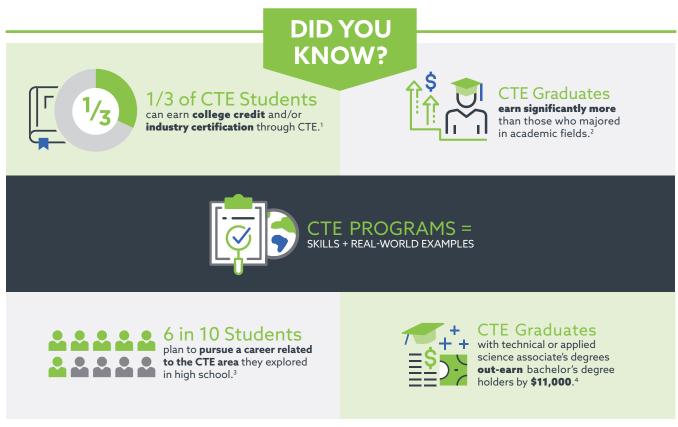# CTE
CAREER & TECHNICAL EDUCATION

MANUFACTURING, ENGINEERING, AND TECHNOLOGY

Becoming a member of the Manufacturing, Engineering, and Technology pathway provides you with an engaging, fun, and challenging program of study in Project Lead the Way (PLTW) Engineering. Students who complete the PLTW program of study may earn college-level credit and industry certification. Students may complete a capstone project in their senior year.

DID YOU KNOW?

1/3 of CTE Students can earn **college credit** and/or **industry certification** through CTE.[1]

CTE Graduates earn significantly more than those who majored in academic fields.[2]

CTE PROGRAMS = SKILLS + REAL-WORLD EXAMPLES

6 in 10 Students plan to **pursue a career related to the CTE area** they explored in high school.[3]

CTE Graduates with technical or applied science associate's degrees **out-earn** bachelor's degree holders by **$11,000**.[4]

[1] Source: My College Options®/ACTE research study (2016). National sample includes 40,192 high school CTE students., [2] Jacobson and Mokher, Florida Study of Career and Technical Education, 2014, as cited in the 2014 National Assessment of CTE Final Report, [3] NRCCUA® and ACTE 2016, [4] Schneider 2013, College Measures

PROJECT LEAD THE WAY (PLTW) ENGINEERING
(4-year pathway)

Do you possess a strong analytical aptitude? Are you a logical thinker? Are you mathematically inclined? Would you like to make a difference in the world? From the start to the end of each day, engineering technologies improve the ways we communicate, work, travel, stay healthy, and entertain ourselves. As a student in the PLTW Engineering pathway, you will apply engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. You will focus on the process of defining and solving a problem, not just on getting the "right" answer." The PLTW Engineering pathway also provides opportunities for you to develop highly transferable skills in collaboration, communication, and critical thinking, which are relevant for any coursework or career. Students may earn college credits in this pathway.

PLTW Engineering Specialty Courses:

GRADE 9	Introduction to Engineering Design
GRADE 10	Principles of Engineering
GRADE 11	Digital Electronics
GRADE 11	Civil Engineering and Architecture or Aerospace Engineering
GRADE 12	Engineering Design and Development

Possible College Majors

- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Aerospace Engineering
- Mathematics
- Computer Science
- Engineering Studies
- Computer Engineering
- Computer and IT Administration
- Computer Systems

Possible Careers

- Civil Engineer
- Aerospace Engineer
- Computer Programmer
- Computer Scientist
- System Analyst
- City/Urban Planner
- Computer Engineer
- Application Programmer
- Database Programmer
- System Engineer
- Electrical Engineer
- General Contractor
- Network Engineer

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