

OKLAHOMA CAREERTECH STEM EDUCATION

CareerTech STEM Value

- Improved ACT scores
- Concurrent college credit
- AP courses and credit
- Scholarships—millions of dollars garnered
- Provides foundation for success in postsecondary STEM majors
- Reduces the college drop-out rate



From project management and technical writing and presentation skills through basic engineering principles involving mechanical design, programming, electronics, and manufacturing—my time in the pre-engineering course was an incredible asset in helping me to be successful both in college and now as a working engineer.

- **Tim Long**, Lead Laboratory Engineer II, GE Research Facility, Oklahoma City, OK



CareerTech STEM Impact

- 47 STEM programs in Oklahoma technology centers
- Approximately 190 STEM programs in Oklahoma middle schools and high schools
- CareerTech STEM graduates attend prestigious universities such as OSU, OU, TU, OCU, MIT, etc.
- CareerTech STEM graduates are employed as physicists, aerospace engineers, mechanical engineers, electrical engineers, physicians, nurse practitioners, veterinarians and other high-earning careers.



Project Lead The Way is one of the most effective programs for preparing students for their university studies in engineering. Not only does PLTW develop academic skills, but more importantly it stimulates their imagination and desire—something that engineering students need in our technical world.

- **Ed Kirtley**, Assistant Dean of Outreach, OSU College of Engineering, Architecture and Technology

CareerTech STEM Education

Computer Science

- PLTW curriculum
- AP Partnership
- Multiple programming languages
- Cybersecurity
- Mobile app development
- Computer science careers

Biomedical Science

- PLTW curriculum
- Extensive science lab experience
- Biotechnician assistant credential
- Oral and written communication skills
- Research opportunities
- Biomedical careers

Pre-Engineering

- PLTW curriculum
- Industry-certified CAD software
- Prototypes
- Patents
- Reverse engineering
- Engineering notebooks
- Engineering careers

Biotechnology

- Medical
- Environmental
- Agriculture
- Extensive science lab experience
- Biotechnician assistant credential
- Research opportunities
- Biotechnology careers

Technology Engineering

- Engineering design process
- Robotics
- Hands-on projects
- STEM careers

CareerTech STEM Middle School

- PLTW Gateway or technology engineering option
- STEM career exploration
- Preparatory courses for computer science, pre-engineering, biomedical science
- Engineering design process
- Robotics
- Computer science programming



Project Lead The Way is an excellent program for a child who is interested in engineering. This program exposes several disciplines in engineering. The program gave my son the opportunity to find the field of engineering that fit him. PLTW has proven itself because my son is pursuing an electrical engineering degree at Oklahoma State University.

- **Gary Hall**, parent of pre-engineering program alumni

