

# Science, Technology, Engineering and Math (STEM) Course Selection

## Current STEM Courses

(See back for Academy Details)

Science	Technology	Engineering	Math
Biology	Web Page Design	STEM (8 <sup>th</sup> grade only) (PLTW)	Geometry
Chemistry	Computer Programming	Introduction to Engineering Design (PLTW)	Algebra I and II
Physics	Computerized and Advanced Accounting	Product Design and Modeling	Statistics
Environmental Science	College Computer Skills	Engineering Design	Discrete Math
Human Anatomy	Computer Science	Architectural Engineering	Pre-Calculus
	Principles of Business		Calculus
	Computer Graphics		Accounting
	Graphic Design		

With more opportunities arising every year.

### About Project Lead the Way

- World class engineering curriculum
- High quality professional development
- Nationally recognized



Visit  
[pltw.org](http://pltw.org)  
[pltwohio.org](http://pltwohio.org)

“Project Lead The Way (PLTW) is the leading provider of rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) education curricular programs used in elementary, middle, and high schools across the U.S.” – [pltw.org](http://pltw.org)

# STEM Academies

## Academies:

- **Open enrollment, student from any school can enroll pending application and pre-requisites**
- **First 2.5 periods of the day, drive back to home school during 3<sup>rd</sup> period**
- **Must have your own transportation**
- **AP, Project Lead the Way (PLTW), OSU, and/or Career Tech. College credits available depending on academy and passing criteria.**

**Engineering Academy**—Focuses on developing good engineering practices, from initial brainstorming through design, building and testing. The academy has a hands-on focus. Students learn university and industry standard software packages in 3D design, programming and circuitry. Courses include Principles of Engineering (PLTW), Digital Electronics (PLTW), Capstone Project, OSU Calc. and Matlab (taught by OSU instructors on-site). Open enrollment, housed at Coffman

**Biomedical Research Academy**—Underlying practices include technical writing, 3D art, and biological research protocol. Biological problems and solutions are investigated through authentic case students, inquiry-based queries and open experimentation. In addition students will get a chance to explore medical professions in a variety of specialties through regular classroom visits from industry professionals and field trips. Courses include AP Biology, Medical Interventions (PLTW), Anatomy and Physiology, Capstone Project and Art. Open enrollment, housed at Scioto

**Energy and the Environment**—Using integrated learning this academy explores global population, economics, politics, and ethics and world views as it pertains to the atmosphere, hydrosphere, geosphere and the biosphere. This academy allows students to explore career opportunities in the fields of urban planning, environmental design, ecological restoration, energy production as well as other careers in sustainability and environmental science. Courses include AP Environmental Science, American Government, Global Politics, Applications of Technology in Science, Technical Writing, Advanced Research Topics. Social studies courses would be taken in a blended environment with the majority of the course online. Open enrollment, housed at Jerome

## Other Academies and Opportunities

**Young Professionals Academy:** Time and stress management, decision-making, career testing, teamwork, business writing, resume development, interview skills, networking, collaboration with professionals, social medial, portfolio development, and more.

**Business Academy:** DBA students will contribute and study all aspects of running a real world business. Students will gain 21st century skills during this exciting experiential learning opportunity. Students will operate Dublin Designs, an existing full service screen-printing and design company.

**Teachers Academy:** Students will be given an opportunity to get a head start on the path to a successful career in education

**Career and Technical Programming with Tolles Technical Center** – Architectural and Environmental, Business and Information Technology, Construction, Engineering and Manufacturing, Health Science