

# ENGINEERING

## Engineering @ ACT

The Engineering Program at the School of Architecture and Construction Trades uses the Project Lead the Way (PLTW) curriculum/cohort of courses, which includes:

Introduction to Engineering Design (IED): students learn to use state of the art software to apply the Engineering Design Process to create 3D modeling and 3D prototyping using a 3D printer.

Principles of Engineering (POE): students build on skills from IED to explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Civil Engineering and Architecture (CEA): Students learn important aspects of building and site design and development. They apply STEM education to engineering practices to design both residential and commercial project and document their work using REVIT 3D architecture design software.

### Program Profile

<b>School:</b>	School of Architecture and Construction Trades
<b>Industry Certifications/Credentials Available:</b>	Project Lead the Way
<b>Applicable Career Paths:</b>	STEM fields, STEM Education, Engineering
<b>Career and Technical Student Organization:</b>	SkillsUSA
<b>Advisory Board Members:</b>	Various representation from Engineers

## Engineering @ GMA

Garrett Morgan Academy also uses the Project Lead the Way (PLTW) curriculum/cohort of courses.

### Program Profile

<b>School:</b>	Garrett Morgan Academy
<b>Industry Certifications/Credentials Available:</b>	Project Lead the Way
<b>Applicable Career Paths:</b>	STEM fields, STEM Education, Engineering
<b>Advisory Board Members:</b>	NJCDC