

## What is NAF?

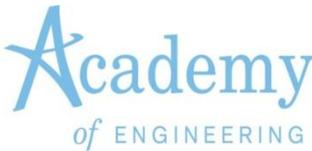
The National Academy Foundation (NAF) is a leader in the movement to prepare young people for college and career success. For 30 years, NAF has refined a proven educational model which includes industry-focus curricula, work-based learning experiences, and business partner expertise.



## Why Choose a School with a NAF

### Academy of Engineering? ([www.naf.org](http://www.naf.org))

Career academies increase the engagement of high school students and provide a way for those beyond the walls of the school to enhance students' educational experiences.



NAF academies succeed with the investment of schools, students, businesses, and community leaders who believe young people deserve a high return on their education.

## Our Vision:

The Academy of Engineering addresses the critical achievement gap in STEM fields and develops a pipeline of students prepared to pursue engineering, technology and science related degrees and professions in one of the fastest growing sectors of the economy.

## The NAF Academy Internship Program

As part of a career-focused educational experience, NAF academy students take part in an ongoing series of work-based learning activities, culminating with a compensated internship completed typically during their 11th and 12th grade year.

The internship experience gives students a chance to gain real world, hands-on experience, make lasting professional connections, and discover more about their interest and proficiency along a specific career path.

## Courses and Curriculum ([www.pltw.org](http://www.pltw.org))

### Introduction to Engineering Design (IED)

Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

### Principles of Engineering (POE)

This survey course includes mechanisms, energy, statics, materials, and kinematics. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

### Digital Electronics (DE)

Digital electronics is the foundation of all modern electronic devices such as mobile phones, MP3 players, laptop computers, digital cameras and high-definition televisions. Students are introduced to the process of combinational and sequential logic design, engineering standards and technical documentation.

### Computer Added Manufacturing (CIM)

How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? While students discover the answers to these questions, they're learning about the history of manufacturing, robotics and automation, manufacturing processes, computer modeling, manufacturing equipment, and flexible manufacturing systems.

### Engineering Design and Development (EDD)

In this capstone course, students work in teams to design and develop an original solution to a valid open-ended technical problem by applying the engineering design process. Students perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams design, build, and test their solutions while working closely with industry professionals who provide mentoring opportunities. Finally, student teams present and defend their original solution to an outside panel.

