

# ACADEMY OF ENGINEERING



Students enrolled in Bryan Adams High School Academy of Engineering will follow this pathway towards NAFTrack Certification

## 1 INTRODUCTION TO ENGINEERING DESIGN

In their first course, students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. They work to develop and document design solutions using Engineering Notebooks and 3D modeling software.

## 2 DIGITAL ELECTRONICS

This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as computational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

## 3 ENGINEERING SCIENCE

Through problems that engage and challenge, students 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.

## 4 NAF INTERNSHIP

The summer between Junior and Senior year, NAF students are required to participate in a 120 hour paid internship. These internships are provided by NAF and community partners. Students must complete a professionalism course to participate

## 5 CIVIL ENGINEERING AND ARCHITECTURE

In Civil Engineering and Architecture (CEA), students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software.



## 6 NAFTRACK CERTIFICATION

Students that pass all four NAF courses, participate in the 120 hour paid internship, and graduate from Bryan Adams, receive a NAFTrack certification. This certification increases your chance of college acceptance, job acquisition, and NAF partnering companies



## OTHER OPPORTUNITIES

While enrolled in NAF Courses, students will get opportunities for Guest Speakers from various STEM careers, work site tours, and extra job preparation such as mock interviews, financial literacy workshops, and college guidance

