

## Engineering Pathway

## Academy of Suggested Courses

### Suggested Progression

12<sup>th</sup> Grade

**ADT180 A/B Architectural Design (1<sup>st</sup> Semester)**  
**CAD 224 Revit Architecture (AIMS) (2<sup>nd</sup> Semester)**

Architectural design will focus primarily on learning the architectural design program, Autodesk Revit. However, we will cover other topics including the history of architecture and sustainable versus green design.

11<sup>th</sup> Grade

**ADT170 A/B Principles of Engineering NAF**

This STEM course is a team based advanced course. Students who complete this course will engage in real world case studies and learning activities that focus on the engineering process and making the world a better place to live and work in.

10<sup>th</sup> Grade

**ADT160 A/B 3-D Solid Modeling NAF (1<sup>st</sup> Semester)**  
**CAD 255 SolidWorks (Aims) (2<sup>nd</sup> Semester)**

Introduces parametric feature-based solid modeling 3D concepts to build confidence in 3D thinking and progresses to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as to produce 2D drawings from the 3D models.

9<sup>th</sup> Grade

**ADT150 A/B Introduction to Engineering NAF**

Introduces the engineering design process and some of the basic concepts of engineering. Students will work on projects related to windmills, bridges, solar cars, micro-controllers, 3D modeling, and several other topics. The ability to communicate as an engineer is one its most important aspects, so students will also learn elements of effective communication and technical writing.