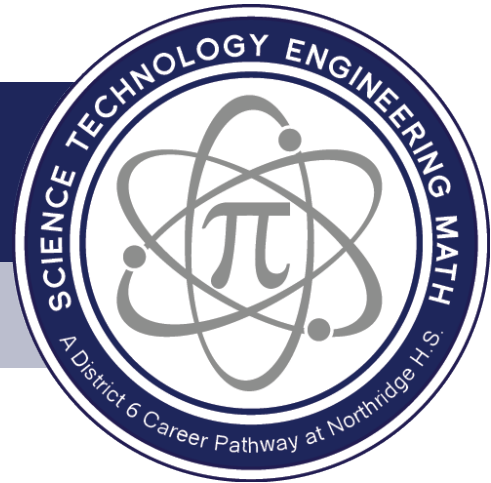


STEM Academy



Academy of Engineering (AOE) Pathway

Students in this pathway combine their knowledge of mathematics and science with invention and design processes in order to identify, analyze, and creatively solve problems. Pathway courses include the foundations of Civil, Mechanical, and Architectural Engineering.

GRADUATION REQUIREMENTS

Language Arts 4.0 credits
 Mathematics 3.0 credits
 Science 3.0 credits
 Social Studies 3.0 credits
 Physical Ed 1.5 credits
 Electives 7.5 credits

*4 yr college ready:

- 1 additional credit of math
- Minimum 2 credits of the same world language

Pathways courses offered at Northridge (count as electives)

Introduction to Engineering (9th grade)
 3D Solid Modeling (10th grade)
 Principles of Engineering (11th grade)
 Science Research Techniques (11th grade)
 Work Based Learning (11th grade)
 Architectural Design (12th grade)
 Senior Capstone Seminar (12th grade)

CERTIFICATE OPPORTUNITIES

Successful completion of pathway and Concurrent Enrollment courses may lead to certification. Examples of certificates are:

- Medical Drafters
- Environmental Science Technician
- Mapping Technician

POST-SECONDARY OCCUPATIONS

Career Options	Salary Estimate	Minimum Degree Required
Mechanical Engineering Technician	\$37,000	Associate
Environmental Engineer	\$81,000	Bachelor
Chemist	\$73,000	Bachelor
Hydrologist	\$75,000	Graduate

Extended Learning and Leadership Opportunities

HOSA (Health Occupations of America/Future Health Professionals) student organization. Career Explore Internships.

Endorsement Opportunities (10 credits)

Successful completion of Intro to Engineering, 3D Modeling, Principles of Engineering, Architectural Design, Physics/AP Physics, and common STEM academy courses (5 credits) along with a 180 hour internship will lead to an Academy of Engineering Endorsement.

Early College Credit Opportunities (Concurrent Enrollment)

Below is a sampling of courses that may be taken prior to graduation:

GIS101 Introduction to GIS	CAD101 Computer Aided Drafting I
CAD224 Revit Architecture	CAD233 Civil 3D Software
CAD255 SolidWorks/Mechanical	CZD220 Surveying