

ENGINEERING PATHWAY DIPLOMA

Graduation Requirements for a Diploma with an Emphasis in Engineering Careers (If an AP Course is not offered at the time the student needs, the student may apply to take the equivalent class at a college under Concurrent Enrollment.)

English

4.0 Credits

Freshman English (1.0)
Sophomore English (1.0)
Junior English or AP English Literature (1.0)
Senior English or AP English Literature (1.0), Senior Composition (1.0)

Social Studies

3.5 Credits

American Government (.50)
Global Geography (.50) or AP Human Geography (1.0)
American History or AP American History (1.0)
World History or AP World History (1.0)

Additional credits as needed to earn 3.5 total social studies credits

Mathematics

4.5 Credits

Geometry or Geometry Honors (1.0)
Algebra II or Algebra II Honors (1.0)
College Algebra/College Trigonometry (1.5)
AP Calculus/Calculus I (1.0)

Science

5.0 Credits

Freshman Science I (.5)
Freshman Science II (.5)
Engineering I (1.0)
Physics (1.0)
AP Chemistry (2.0) or AP Physics (1.0) Note: AP Physics strongly recommended.
Engineering II (1.0) or Computer Science (1.0) Note: Recommend both

Career and Technical Education

1.0 Credit

College and Career Prep. (.5)

Additional .5 credit as decided upon by parent, advisor and student.

Fine Arts

1.0 Credit

Introduction to Art (.25)

Additional .75 credit in Fine Arts coursework as decided upon by parent, advisor, and student.

World Language

2.0 Credits of the same language

Students may enroll in a language of their choice.
Students who plan to attend a four-year college should plan to take three years of the same language.

Wellness

1.0 Credit

The Health and Wellness Experience (.25)

Additional .75 credit in Wellness/P.E. coursework as decided upon by parent, advisor, and student.

Advising

2.0 Credit

Total Credits – The student must earn at least 29 credits for this pathway diploma.

Job Shadows – All students must complete 3 one-half day shadowing experiences. One experience must be in an *Engineering-related* field.

Community Service – 40 hours must be logged to receive .25 credit

Internship – 40 hours in an Engineering-related field must be logged to receive .25 credit

Pathway Exploration – Additional 40 hours in an Engineering-related field must be logged to receive .25 credit. This may be completed through additional shadowing, community service, or internship.

Portfolio – The ICAP portfolio is required for this pathway diploma

Senior Project – A senior project is required for this pathway diploma

Sample Careers for Engineering Pathway

- Aerospace Engineer
- Architect
- Atmospheric Science
- Bio Tech Engineering
- Chemist
- Civil Engineer
- Computer Engineer
- Electrical Engineer
- Mechanical Engineer
- Structural Engineer
- Systems Analyst
- Teacher of Science or Math