

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