

 SERVICE AREA: Applied Sciences, Technology, Engineering, and Manufacturing



SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

Are you a problem solver who loves figuring out how to solve complex issues? A career in a STEM field – which most often involve solving problems through research and design – could be right for you. Careers in this cluster have a wide range of educational requirements including certificate programs, two-year degrees, four-year degrees and well into graduate school through doctoral degrees.



PATHWAYS IN THIS CLUSTER...

- » Engineering and Technology
- » Science and Math



...LEAD TO OCCUPATIONS AS:

- » Aerospace Engineer
- » Agricultural Engineer
- » Analytical Chemist
- » Anthropologist
- » Architectural Engineer
- » Biomedical Engineer
- » CAD Technician
- » Civil Engineer
- » Computer Programmer
- » Ecologist
- » Geologist
- » Math Teacher
- » Metallurgist
- » Statistician
- » Survey Technician
- » Zoologist



DIVE DEEPER INTO CAREER OPTIONS!

www.dbqschools.org/career-exploration

OR

login to Kuder Navigator

(the Dubuque Community School District's career information system)

This page is meant to guide student course selection based on career interest and is not a comprehensive list of courses required for graduation from high school or for all 2-year and 4-year college-bound students.

- For comprehensive 4-year course recommendations, review pages 33-35.
- For comprehensive graduation requirements, review page 4.



CHART YOUR COURSES

The following high school courses can help prepare you for success in this field after high school. Everyone will have a career – not everyone will go to college. Start charting your courses with CAREER TRAINING and proceed to 2-YEAR-DEGREE and 4-YEAR DEGREE based on your post-secondary plans.

CAREER TRAINING

Recommended Courses:

- INT401 Engineering I
- INT402 Engineering II
- WBL300 Employability Skills with Job Shadowing
- WBL401 Internship

Suggested Extension Courses:

- INT323 Electricity/Electronics
- INT332 Metals
- INT363 Welding
- SCI183 Physics



2-YEAR DEGREE

Recommended Courses:

- INT115 Engineering Drafting and Design I
- INT413 Engineering Drafting and Design II
- MTH271/272 Algebra II
- or MTH351 Applied Math I and MTH352 Applied Math II

plus recommended CAREER TRAINING courses

Suggested Extension Courses:

- ENG641 Composition I
- ENG643 Public Speaking
- ENG644 Composition II
- MTH331/332 Pre-Calculus with Trigonometry or MTH361 Foundations of College Math and MTH362 Math for Liberal Arts

plus suggested CAREER TRAINING courses



4-YEAR DEGREE +

Recommended Courses:

- ENG641 Composition I
- ENG643 Public Speaking
- ENG644 Composition II
- MTH331/332 Pre-Calculus with Trigonometry or MTH361 Foundations of College Math and MTH362 Math for Liberal Arts
- SCI183 Physics
- SCI184 Chemistry

plus recommended CAREER TRAINING and 2-YEAR DEGREE courses

Suggested Extension Courses:

- ART114 Art 3D
- SCI141/142 Honors Biology
- SCI331/332 Honors Physics
- SCI531/532 AP Biology
- SCI561/562 AP Chemistry

plus suggested CAREER TRAINING and 2-YEAR DEGREE courses