

MECHANICAL SYSTEMS

AGRICULTURE SCIENCE AND STUDIES



Recommended Courses

9th Grade: Principles of Agriculture, Food & Natural Resources

10th Grade: Agriculture Mechanics & Metal Technologies

11th Grade: Agriculture Facilities Design & Fabrication; and/or Agriculture Power Systems

12th Grade: Practicum in Agriculture, Food & Natural Resources

Other Courses to take:

Principles & Elements of Floral Design

Advanced Animal Science or Advanced Plant and Soil Science (also counts or as **4th year Science Credit**)

Mathematical Applications in Agriculture, Food & Natural Resources (also counts as **4th year Math Credit**)

Course Descriptions

Principles of Agriculture, Food & Natural Resources - This course provides an overview of basic knowledge related to the agriculture industry. Students will be prepared to choose an agriculture pathway aligned to their educational and career goals at the end of their freshman year.

Agriculture Mechanics & Metal Technologies - Students will learn to use mechanical equipment such as welders and construction tools to develop skills in plumbing, electrical, wood working, and precision metal. Welding and cutting torch skills will be developed, as well as, knowledge of the latest metal technologies.

Agriculture Power Systems - Engines of all types—including small gas, electric, and large diesel and gas motors—will be introduced. Students will acquire skills through by participation in hands-on activities in our Agriculture Mechanics shop. Course projects may include Tractor Restoration.

Agriculture Facilities Design & Fabrication - Using the latest technologies and construction techniques, students will go through the entire process of designing and building agriculture facilities, such as animal pens and barns used in agriculture settings.

Practicum in Agriculture, Food & Natural Resources - The Practicum is designed to provide students with supervised, practical, on-the-job experience. Practicum experiences can occur in a variety of places appropriate to the area of agriculture career, such as employment in a related industry, independent study course, internships on campus and assistantships.