

RONDOUT VALLEY HIGH SCHOOL AGRICULTURE PROGRAM

We have immersed our students in an exciting and engaging agriculture program. Some of our high school courses follow the guiding principles developed by the National Council for Agricultural Education through their CASE project. The curriculum provides a high level of educational experiences to enhance the rigor and relevance of agriculture, food, and natural resources subject matter. Besides elevating the rigor of agriculture, food, and natural resources knowledge and skills, CASE provides purposeful enhancement of science, mathematics, and English language understanding. Concepts are taught using activity-, project-, and problem-base instructional strategies. In addition to the curriculum aspect of CASE, the project ensures quality teaching by providing extensive professional development for teachers that leads to certification.

We currently offer four agriculture-related electives at the High School level and two are CASE-based and we anticipate two additional courses for the upcoming year.

CURRENT AGRICULTURE ELECTIVES

(A) Principles of Agricultural Science – Plant (CASE)

This course provides a foundation of plant science knowledge and skills. Students will experience various plant science concepts through exciting “hands-on” activities, projects, and problems. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agronomic, forestry, and horticultural industries. Students will discover the value of plant production and its impact on the individual, the local, and the global economy. Students will work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers, and plant research specialists, face in their respective careers. The prerequisite for this course is Regents Living Environment.

(B) Principles of Agricultural Science – Animal (CASE)

The major focus of the course is to expose students to agriculture, animal science, and related career options. Students participating in this course will have experiences in various animal science concepts with exciting hands-on activities, projects, and problems. Students’ experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. The prerequisite for this course is Regents Living Environment.

(C) Agribusiness Management

Students will learn about the agribusiness management and economics. Topics include Influences In Agribusiness, Diminishing Returns, Fixed and Variable Costs, Opportunity Costs, Supply and Demand, Time Value of Money, Starting An Agribusiness, Developing A Business Plan & Goals, financial planning and business records.

(D) Agribusiness Sales

Students will learn about the business of agriculture and skills necessary for agribusiness sales. Topics include Agriculture Today, Influences In Agribusiness, Job Seeking, Professional Communication, Ethics, Selling Environments, Relationship Building, Customer Satisfaction and sales.

PROPOSED AGRICULTURE ELECTIVES FOR 2017-2018

(A) Food Science and Safety (CASE)

Students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the food science and safety industry, allowing students to build content knowledge and technical skills. Students will investigate areas of food science including food safety, food chemistry, food processing, food product development, and marketing.

(B) Agriculture Power and Technology (CASE)

A foundation level course designed to prepare students for the wide array of career opportunities in agricultural engineering. Students are immersed in inquiry-based exercises that tie in the math and science of agricultural mechanics and engineering. Throughout the course, students apply technical skill while becoming competent in the process used to operate, repair, engineer, and design agricultural tools and equipment.

Greenhouse

The greenhouse is a state of the art facility with a multi-tiered ventilation system including an evaporative cooling component. The four-stage ventilation system can be programmed electronically or controlled manually to meet our usage needs. The greenhouse is heated via two propane heaters to permit use through the winter months.

Our greenhouse is an active learning station for our high school students and is utilized by various subject area teachers (Principles of Agricultural Science – Plant, Living Environment, Advanced Placement Biology, Earth Science, and Life Skills).