Introduction to Agriculture, Food, and Natural Resources

Course Overview and Syllabus

Grade level: 9–12

Prerequisite Courses: None

Credits: 0.5

Course Description

This semester-length high school course introduces students to the basic scientific principles of agriculture and natural resources. Students recognize and research plant systems, animal systems, government policy, “green” technologies, agribusiness principles, and sustainability systems. In this course, students apply understanding of ecosystems and systems thinking to the management of natural resources to maximize the health and productivity of the environment, agriculture, and communities. Students also analyze community practice or policy development related to sustainability in agriculture, food, and natural resources. Finally, students apply adaptive ecosystem management to a common pool resource problem in a manner that addresses ecological, socioeconomic, and institutional contexts.

Course Objectives

Throughout the course, you will meet the following goals:

- Learn how societies have met their need for food and other essentials throughout history
- Investigate sustainable farming practices and the complexity of food distribution systems
- Examine ecosystems and food chains, and the causes and effects of damage
- Review the historical events in the U.S. that impacted sustainable agricultural practices and EPA regulation of pesticides, herbicides, fungicides, and rodenticides
- Learn about the powers of OSHA to help ensure a safe working environment
- Identify the federal departments that oversee the logistics and transportation of goods
- Understand the nature and composition of soil and its role in plants
- Explore plant classifcation and reproduction, as well as how plants deal with predators
- Discover how farmers and governmental agencies can track farm animals to locate the source of contamination or disease
- Study animal genetics, cloning, and the human consumption of cloned meat
- Discuss animal husbandry, animal behavior, and the protection of animals against cruelty
- Explore different careers related to animal care and breeding

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course. Throughout the course, you are expected to spend approximately 5–7 hours per week online on:

- Interactive lessons that include a mixture of videos, readings, and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Lesson Quizzes	20%
Unit Tests	20%
Cumulative Exams	20%
Assignments	10%
Projects	30%
Additional	0%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Nature and Scope of AFNR and Their Role in Society and Economy
Unit 2: Agriculture, Food and Natural Resources and the Environment
Unit 3: Safety and Health in Agriculture, Food and Natural Resources Systems
Unit 4: Introduction to Plant Science
Unit 5: Animal Agriculture