

Course Title

Integrated Agricultural Biology A/B

A section course # AG6260

B section course # AG6261

Course Description

Agricultural Biology is a one year, laboratory science course designed for the college-bound student with career interests in agriculture. Using agriculture as the learning vehicle, the course emphasizes the principles, central concepts, and inter-relationships among the following topics:

- the molecular and cellular aspects of life
- the chemical structural basis of life
- energetics of life
- growth and reproduction in plants and animals
- evolution of modern plants and domestic livestock species
- plant and animal genetics
- taxonomy of modern agricultural plants and animals
- animal behavior
- ecological relationships among plants, animals, humans, and the environment
- nutrition in animals
- health and diseases in animals
- the similarities between animals and humans

The course is centered around an extensive laboratory component in order to connect the central idea of biological science with agricultural applications, earth and physical science principals, and other curricular areas, including extensive written and oral reporting skills.

COURSE GOALS

1. Utilize agricultural applications as a relevant vehicle to teach biological science principles and improve the scientific literacy of students.
2. Strengthen instruction in science for students pursuing professional level careers in agriculture.
3. Integrate mathematics standards, language arts standards, and career employability standards including creative thinking and problem solving skills, and technological literacy related to the agricultural industry.
4. Meet a portion of the laboratory science requirement for admission to the University of California and California State University systems.
5. Develop a sense of the interrelationships between life, earth, and physical science and their relationship to agricultural applications.
6. To motivate under represented populations to study and pursue careers in science and agriculture.

PREREQUISITE: This course is recommended for students in grades 10 through 12. Students must have completed at least one year of introductory agricultural science, and an agriculture instructor's recommendation.

Integrated Ag Biology (continued)

COURSE FORMAT

Classroom instruction, including:

- discussion
- demonstration
- lecture
- examinations
- extensive reading assignments
- guest speakers

Laboratory and field instruction, including:

- science laboratory experience
- field research projects

FFA leadership experience, including:

- verbal and written communication exercises
- leadership development activities

Ten percent supervised workplace learning, including:

- individually developed supervised occupational experience projects

INSTRUCTIONAL MATERIALS

Refer to: Secondary Adopted Texts and Approved Supplementary Books Used in the Santa Maria Joint Union High School District