

Implementation Date  
Fall 2008

**PROGRAM CONCENTRATION:**  
**CAREER PATHWAY:**  
**COURSE TITLE:**

**Agriculture**  
**Agriscience**  
**Biotechnology**

This course is designed as a supplemental or support course for agricultural career pathways such as Agriscience. The course introduces the major areas of biotechnology research and applications. It presents problem solving lessons and introductory skills and knowledge in biotechnology. The course prepares students for further study in biotechnology while giving them hands-on examples of real world applications in biotechnology. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

**AG-BT-1. Students will become oriented to the comprehensive program of agricultural education, learn to work safely in the agriculture lab and work sites, demonstrate selected competencies in leadership through the FFA and agricultural industry organizations necessary for productive contribution to the Bioscience and Agriculture Biotechnology skill standards, and develop plans for a supervised agricultural experience (SAE) program.**

- a. Explain the role of the Agriculture Education program and the FFA in personal development.
- b. Demonstrate knowledge learned through a Supervised Agricultural Experience (SAE) program.
- c. Develop leadership and personal development skills through participation in the FFA.
- d. Explore career opportunities in agriscience and biotechnology through the FFA and Agriculture Education Program.
- e. Explore the professional agricultural organizations associated with the course content.

**ACADEMIC STANDARDS:**

*SCsh1. Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science.*

*SCSh2. Students will use standard safety practices for all classroom laboratory and field investigations.*

*SCSh8. Students will understand important features of the process of scientific inquiry.*

**AG-BT-2. Students will become oriented to the field of biotechnology while developing employable skills as defined by the Bioscience and Agricultural Biotechnology Skill Standards.**

- a. Define biotechnology.