



**Agriculture, Food &  
Natural Resources**

**Biotechnology** is a program of study within the **Agriculture, Food, and Natural Resources Career Cluster**. A Career Cluster is a grouping of occupations and broad industries based on commonalities. There are 16 Career Clusters.

Career Clusters link what students learn in school with the knowledge and skills they need for success in college and careers. The Agriculture, Food, and Natural Resources Career Cluster prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services.

There are eight programs of study in this cluster:

- Agribusiness Systems
- Animal Systems
- Biotechnology
- Environmental Service Systems
- Food Products and Processing Systems
- Plant Systems
- Power, Structural, and Technical Systems
- Natural Resources Systems

### Employment Outlook

The job outlook for **Biotechnicians** varies based on areas of specialty. Many openings will be available due to retiring Biotechnicians. The best job opportunities are expected for graduates of applied science technology programs, especially those with good communication skills and highly developed technical skills. Nationally, the number of jobs for Biotechnicians is expected to increase faster than average through the year 2016. Nationally, the salary range for Biotechnicians is from \$31,350 to \$103,510 per year (Occupational Outlook Handbook, 2009-2010).

### Using this brochure

Inside you will find a suggested **program of study** that has lots of helpful information. The model is an example of the types of courses and extended learning experiences that are important for the **Biotechnology Program of Study**. Use this model to plan your course schedule, educational experiences, and career choices.

At the top of the model, you will find **career goals** with the corresponding **O\*NET code**. The O\*NET code is an official classification of jobs and can be used to locate career-related information. Your teacher, counselor, or media center should be able to help you locate further information.

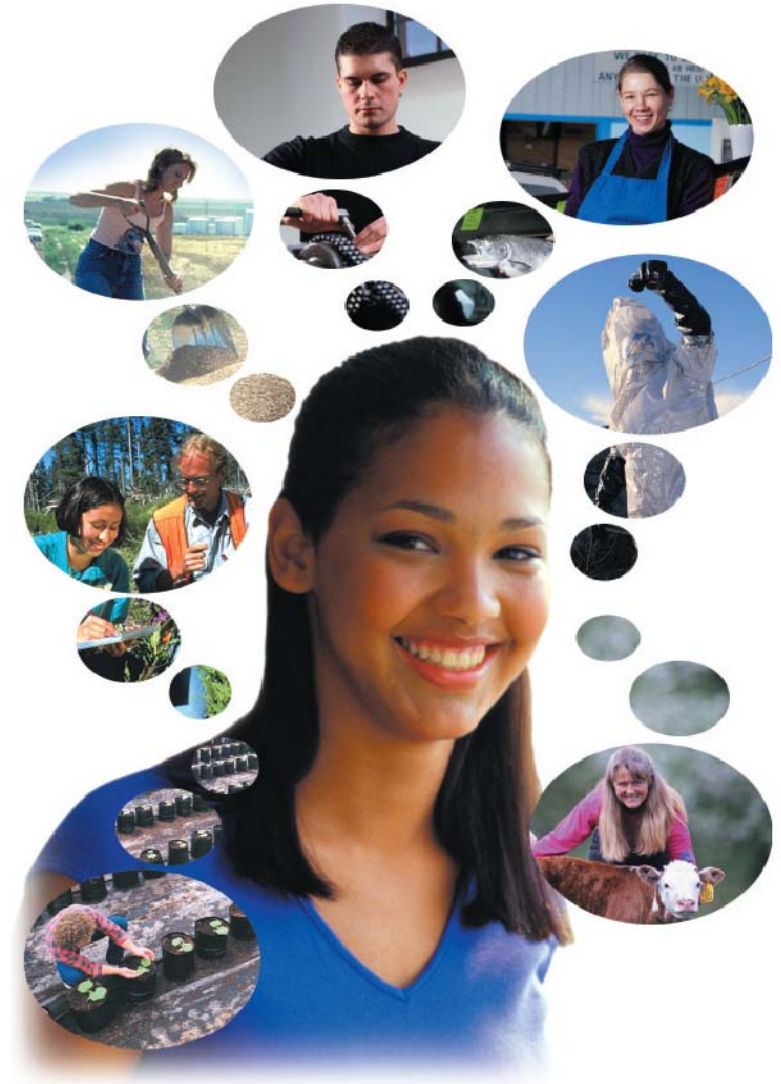
The upper left side of the model highlights the **core courses and career-related electives** in high school that will help prepare you for your career goal. This model is based upon the Recommended High School Program graduation plan and can easily be adapted for the Distinguished Achievement High School Graduation Plan.

The upper right side of the model highlights examples of **extended learning experiences** that can enhance your knowledge and skills for your career goal. You will find examples of curricular activities, such as participation in Career and Technical Student Organizations like FFA, career learning experiences, service learning activities, and extracurricular activities.

The lower left side of the model indicates **industry licensures/certifications** and **on-the-job training experiences** that are available while still in high school. This section also highlights the various levels of **postsecondary education** and examples of **career options** available to you once you have completed that level of education and training.

The lower right side of the model contains examples of **professional associations** available for plant systems professionals. Many of these organizations allow preprofessional membership while enrolled in a postsecondary program. Most organizations have websites which can be easily located by entering the organization name in available search engines.

# Thinking about a career in Biotechnology?



<http://www.achievetexas.org>

This program of study may be for you! Biotechnicians conduct standardized biological, microbiological and biochemical tests and laboratory analyses to evaluate the quantity or quality of physical or chemical substances in food and other products. Look inside to see the suggested coursework and learning opportunities that will prepare you for an exciting and rewarding career.

