



**Biotechnology Research and Development** is a program of study within the **Health Science 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 Health Science Career Cluster focuses on planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

There are five programs of study in the Health Science Career Cluster:

- Biotechnology Research and Development
- Diagnostic Services
- Health Informatics
- Support Services
- Therapeutic Services

### Employment Outlook

An example career in this program of study is **Biological Technician**. The employment outlook for the biotechnology profession is very good. Faster than average growth is likely through the year 2016 due in part to aging of the American population and competition in industries related to their health, such as medicine and pharmaceuticals. Nationally, salaries for Biological Technicians range from \$24,530 to \$62,260 (Occupational Outlook Handbook, 2008-2009).

### 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 Research and Development 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 Program 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 HOSA, 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 may be available to complete 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 health science 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! Biological Technicians conduct experiments and interpret data. They use scientific theories to solve problems in research and development. Many technicians develop and adapt lab procedures to get the best results. They also help invent and improve products and processes. Look inside to see the suggested coursework and learning opportunities that will prepare you for an exciting and rewarding career.

