



**Power, Structural, and Technical Systems** is a program 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
- Plant Systems
- Power, Structural, and Technical Systems
- Natural Resources Systems

### Employment Outlook

The job outlook for **Welders** is excellent. Nationally, the number of jobs for welders is expected to grow as fast as average through 2016. While overall employment in other manufacturing jobs is declining, welding continues to grow significantly. In addition to technological advances in welding applications, trained welders are in demand due to their ability to transfer skills that are not easily automated across multiple industries, such as building and auto construction. Nationally, salaries range from \$22,570 to \$50,700 per year (Occupational Outlook Handbook, 2008-2009). The average starting salary in Texas for welders is \$23,805 (Texas Workforce Commission, 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 **Power, Structural and Technical Systems 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 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 power, structural and technical 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 as a Welder?



<http://www.achievetexas.org>

This program of study may be for you! Welders cut, fit and assemble metal and other materials to construct buildings, equipment, and machinery. They also read and interpret blueprints and use hand and power tools (Occupational Outlook Handbook, 2008-2009). Look inside to see the suggested coursework and learning opportunities that will prepare you for an exciting and rewarding career.

