Welding

# Advanced Manufacturing

*Level Four*

*Level Three*

*Level Two*

*Level One*

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| **Industry Certifications options include:**  Machining Level I- Measurement, Materials, and Safety Certification (NIMS)  AWS SENSE Entry Level Welder  AWS SENSE Advanced Level Welder  American Welding Society Certified Welder  Snap-On Precision Measurement |

**ABOUT THE PROGRAM OF STUDY**

The *Welding* program of study is designed to prepare and certify students as entry-level welders. Students will learn safe practices, career exploration, leadership development, and basic arc welding and thermal cuttings skills. Basic arc welding and thermal cutting skills are developed over a series of two courses which will prepare students for Entry Level Welder Certification, as defined by American Welding Society QC10.

This is not an exhaustive list of all of the opportunities available in Tennessee.

**CAREER OPPORTUNITIES**

For *Welding* occupations, employment of welders, cutters, solders, and brazers is projected to grow seven percent. Employment growth reflects the need for welders in manufacturing because of the importance and versatility of welding as a manufacturing process. The basic skills of welding are similar across industries, so welders can easily shift from one industry to another, depending on where they are needed most. Overall job prospects will vary with the worker’s skill level. Job prospects should be good for welders trained in the latest technologies.

**Employment Projections for *Welding* careers in Tennessee**

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**POSTSECONDARY OPTIONS**

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| **School** | **Degree Program** |
| Chattanooga State Community College | Welding Supervisor |
| Tennessee State University | Manufacturing Engineer |

For more college and career planning resources, visit <http://collegefortn.org>.

****Have you registered for the Tennessee Promise? Seniors enrolled in this program have the chance to attend a two-year program at a Tennessee College of Applied Technology (TCAT), community college, or some two-year university programs for free! To learn more, please see your school counselor or visit <http://www.tennesseepromise.gov> .

***Welding* Related Occupations with the most Annual Average Openings in Tennessee (2014-2024)**

|  |  |  |  |
| --- | --- | --- | --- |
| Occupation | 2014 Estimated Employment | 2024 Projected Employment | Total Percent Change |
| Welders, Cutters, Solderers, and Brazers | 8,630 | 9,210 | 6.60% |
| Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders | 1,850 | 2,530 | 36.50% |

Tennessee Department of Labor and Workforce Development, Job4TN Online. (2017). *Occupational Projections (Long-term)*. Retrieved from <https://www.jobs4tn.gov/vosnet/analyzer/results.aspx?session=occproj>

Students in this program of study will be eligible to join SkillsUSA. In addition to school events, students will be able to compete at the regional, state, and national level. SkillsUSA improves the quality of America’s skilled workforce through a structured program of citizenship, leadership, employability, technical and professional skills training. SkillsUSA enhances the lives and careers of students, instructors and industry representatives as they strive to be champions at work. See your manufacturing teacher to learn more about SkillsUSA or visit <http://www.skillsusa.org>

**For more information, contact:**

**High School Name**

**County Name**

**CTE Director: Name**

**Email**

**Instructor: Name**

**Email**