

# MANUFACTURING

**James Jones, Instructor**

## INDUSTRY CERTIFICATIONS

- Core: Introductory Craft Skills
- Customer Service
- National Career Readiness
- SENSE Entry Welder
- Welding (NCCER)
- Welding (NOCTI)
- Welding (SkillsUSA)
- Workplace Readiness Skills for the Commonwealth

## POSSIBLE CAREER PATHWAYS

- Combination Welder
- Burner
- Welding Engineer

## COLLEGE AND CAREER OPPORTUNITIES

- Wyotech [www.wyotech.edu/](http://www.wyotech.edu/)
- Know How Virginia [www.knowhowvirginia.org/](http://www.knowhowvirginia.org/)
- Tidewater Community College [www.tcc.edu/](http://www.tcc.edu/)
- College Board [www.collegeboard.com/](http://www.collegeboard.com/)
- Virginia Career View [www.vaview.vt.edu/](http://www.vaview.vt.edu/)
- Universal Technical Institute [www.uti.edu/](http://www.uti.edu/)
- Indeed Online Job Search <http://www.indeed.com/>
- Career Connection <http://jobs.hamptonroads.com/>

## STARTING SALARY

\$36,200 - \$38,150

*Earning may vary by specialty*

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Welders, Cutters, Solderers, and Brazers, on the Internet at

<http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm>.

\*\*The Welding Technology course participates in the SkillsUSA co-curricular club.



## PROGRAM DESCRIPTION

Welding Technology is a two-year course that provides students with an in-depth understanding of the various welding technology processes while providing both theoretical and practical instruction on specific skills. The course also involves technical training in basic welding engineering practices and welding automation (robotics). Training is conducted in accordance with the Virginia Department of Education, and the American Welding Society (AWS) standard and specification, with emphasis on the needs of the global marketplace.

## PROGRAM CONTENTS/SKILLS

- Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills
- Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills
- Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills
- Examining All Aspects of an Industry
- Addressing Elements of Student Life
- Applying Basic Construction Safety Standards (Core Safety)
- Exploring the Basics of Welding
- Working with Welding Documents, Drawings, and Measurements
- Demonstrating Shielded Metal Arc Welding (SMAW)
- Demonstrating Gas Metal Arc Welding (GMAW, GMAW-S)
- Demonstrating Flux Cored Arc Welding (FCAW-G)
- Preparing for Gas Tungsten Arc Welding (GTAW)
- Demonstrating Manual Oxyfuel Gas Cutting (OFC)
- Demonstrating Machine Oxyfuel Gas Cutting (OFC Track Burner)
- Demonstrating Carbon Arc Cutting (CAC-A)
- Demonstrating Plasma Arc Cutting (PAC)
- Demonstrating Visual Examination Procedures

FOR FURTHER INFORMATION contact (757) 892-3300 or [schools.nps.k12.va.us/ntc](http://schools.nps.k12.va.us/ntc)