



## *DEM146 Welding for Diesel*

### **Course Information**

Credits	4
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

### **Description**

Introduction to basic concepts of general welding; hands-on lab activities to apply knowledge and develop skills in the following areas: shop safety, cutting (oxy/acetylene) SMAW (Shielded Metal Arc Welding).

### **Textbooks**

Online Materials Provided

### **Student Learning Outcomes:**

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

## Competencies

Rating	Tasks Covered in this Course	Source
	1. Review safety and health standards for welders to provide a safe working environment with 100% accuracy.	WTech
	2. Clarify the terms and fundamentals of S.M.A.W. (Shielded Metal Arc Welding) process.	WTech
	3. Identify Oxy/Acetylene cutting.	WTech
	4. Demonstrate Oxy/Acetylene Cutting with 100% accuracy.	WTech
	5. Identify power source classifications when working with welding equipment.	WTech
	6. Identify the factors necessary for choosing proper electrodes.	WTech
	7. Identify the safety procedures for welding.	WTech
	8. Apply the safety procedures for welding.	WTech
	9. Identify striking the arc.	WTech
	10. Demonstrate striking the arc.	WTech
	11. Identify controlling the arc.	WTech
	12. Demonstrate controlling the arc.	WTech
	13. Identify padding in the flat position.	WTech
	14. Demonstrate padding in the flat position	WTech
	15. Identify padding in the horizontal position.	WTech
	16. Demonstrate padding in the horizontal position.	WTech
	17. Identify a groove weld in the flat position.	WTech
	18. Demonstrate a groove weld in the flat position	WTech
	19. Identify a groove weld in the horizontal position.	WTech
	20. Demonstrate a groove weld in the horizontal position.	WTech

## **Guidelines for Success** *(See Program Syllabus for additional information.)*

### **Assessment Plan**

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

### **Grading Rationale**

Student progress is evaluated by means that include, but not limited to:

- Lab Work (40%)
- Professional Behavior (30%)
- Classroom Activities/Homework (10%)
- Quizzes & Tests (10%)
- Final Exams (10%)

### **Grading Scale**

90-100% A  
80-89% B  
70-79% C  
60-69% D  
59% or less F

### **Attendance**

Attendance is a key part of success in the program and in the workplace. Students are to arrive for class on time and be prepared to learn. Absences or tardiness will negatively impact grades. Missed time cannot be made up. Many assignments and labs cannot be "made-up" if missed. The options to make-up missed work or to accept late work is at the discretion of the instructor.

### **Disability**

The Americans with Disabilities Act (ADA) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST self-identify by completing an application. In addition students must provide appropriate medical documentation to the ADA coordinator to be eligible for accommodations. New requests for accommodations should be submitted at least two months or more prior to the date the accommodations are needed. However, please contact the ADA office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of accommodations.

The ADA Office coordinates and assists in arranging accommodations it deems appropriate for eligible students on a case-by-case basis. If you are a student with a disability that may substantially limit your ability to participate in any of our classes and you believe that you will need accommodations, it is your responsibility to contact:

### **ADA Coordinator**

**Phone: 785-670-3365** Email: [gloria.christian@washburn.edu](mailto:gloria.christian@washburn.edu)

It is the policy of Washburn Institute of Technology to assure equal employment and educational opportunity to qualified individuals without regard to race, color, sex, age, ancestry, marital or parental status, disability, religion, national origin, or sexual orientation/gender identity. Contact Pam Foster, Morgan Hall, Room Washburn University (785-670-1509), and [pam.fosterel@washburn.edu](mailto:pam.fosterel@washburn.edu)