



WEL220 Flux Cored Arc Welding (FCAW) Syllabus

Course Information

Credits	5
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

Description

The Flux Cored Arc Welding Unit (FCAW) is designed to teach the student the correct techniques to weld in all positions. Safety is stressed in the shop. Practice and training in the welding shop will develop the basic skill level necessary to produce quality welds in all positions and in different joint configurations. Prerequisites: WEL101 (Safety), WEL135 (SMAW I), and WEL141 (GMAW).

Textbooks

none

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

1. Demonstrate set-up operation and shut-down procedures
2. Demonstrate surfacing weld flat position $\frac{1}{4}$ " plate
3. Demonstrate surfacing weld horizontal position $\frac{1}{4}$ " plate
4. Demonstrate surfacing weld vertical up position $\frac{1}{4}$ " plate
5. Demonstrate surfacing weld overhead position $\frac{1}{4}$ " plate
6. Demonstrate fillet weld tee joint horizontal position $\frac{1}{4}$ " plate
7. Demonstrate single bevel groove weld butt joint horizontal position $\frac{3}{8}$ " plate
8. Demonstrate single Vee groove butt joint vertical-up position $\frac{3}{8}$ " plate
9. Demonstrate fillet weld lap joint vertical up position $\frac{3}{4}$ " plate
10. Demonstrate single Vee groove weld butt joint overhead position $\frac{3}{4}$ " plate
11. Demonstrate fillet weld lap joint, flat and horizontal position $\frac{3}{4}$ " plate
12. Demonstrate single Vee groove weld butt joint horizontal position $\frac{3}{4}$ " plate

Guidelines for Success

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 and Grading Scale

Rating Scale

- 4 Skilled – can perform task with no additional training
- 3 Moderately skilled – has performed task during training program; limited additional training may be required
- 2 Limited Skill – has performed task during training program; additional training is required to develop skill
- 1 Exposed to content – is familiar with process; no opportunity to develop skill
- 0 No Exposure – not covered

Directions: Evaluate the student by checking the appropriate number to indicate the degree of competency reached. Rate each task to reflect employability readiness.

Attendance

Attendance is required.

Disability

The Special Support Services (SSS) 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 register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of 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 this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator

Phone: 785-228-6356

E-Mail: ssscoordinator@washburn.edu

