

CHAMP COURSE MAP

Course Name: WEL 204 Flux Cored Arc Welding II	
Instructor Name: Ryan Thomas	Date: 8-28-14
Course Competencies: <ol style="list-style-type: none"> I. Follow shop safety practices. II. Maintain a clean, safe work area. III. Prepare assigned records. IV. Follow assigned instructions to complete work assignments. V. Participate in assigned fabrication projects. VI. Perform safety inspections on FCAW equipment VII. Make minor external repairs as necessary to FCAW equipment. VIII. Set up for FCAW operations on plain carbon steel. IX. Operate FCAW equipment. X. Make fillet welds, all positions on plain carbon steel using gas shielded wire. XI. Make groove welds, all position using gas shielded wire. XII. Examine tack and completed welds. XIII. Execute corrective actions to repair surface flaws on welds and base metals. XIV. Recognize fundamental principles of the FCAW process. XV. Explain fundamental principles of the FCAW process. XVI. Apply principles of joint design and preparation to welding, fabrication, and inspection. XVII. Apply principles of weld quality and repairs to welding, fabrication, and inspection. 	

Course Materials (Text, Edition and any other publisher items)

Textbooks and/or Resources: *Modern Welding*, Althouse, et. al, Goodheart-Willcox, 11th ed., 2013

Resources: “Precautions and Safe Practices for Arc Welding, Cutting & Gouging”, [View here](#)

Rubrics: Rubrics and specific grading criteria for EACH assessment should be included at the end of the course map.

Module # and Title	CCNS Competencies	Content, Activities or Challenges (Learner Interaction & Engagement)	Assessments, Rubrics (Feedback)	Publish to OER
Start Here		CC BY Attribution WEL 204 Course Competencies WEL 204 Syllabus.doc Hourly Log.doc Emily Griffith Technical College Internet Use Polity WEL 204 Flux Cored Arc Welding II Course Competencies Setting Up Your Computer Getting Help Netiquette		

Module # and Title	CCNS Competencies	Content, Activities or Challenges (Learner Interaction & Engagement)	Assessments, Rubrics (Feedback)	Publish to OER
		Necessary Skills Time Management Tips 7 Steps for Online Success Tips For Success		
Safety Review	I, II, III, IV	WEL 100 Safety for Welders webpage: "Workplace Safety" WEL 100 Safety for Welders webpage: "Personal Safety" WEL 100 Safety for Welders webpage: "Lifting Safety" WEL 100 Safety for Welders webpage: "Welding Standards and Procedures"	Workplace Safety Quiz Personal Safety Quiz Lifting Safety Quiz Welding Safety Quiz	
Introduction to FCAW-G	IV, XVI, XVII, XVII	Steve the Welder videos: FCAW Background FCAW-G Equipment		
Bead Types	I, II, III, IV, V, VI, VII, VIII, IX	Welding Defects and Discontinuities presentation; Steve the Welder videos: FCAW-G Wire FCAW-G Beads AWS-EDU-FCAW-G.pdf; FCAW-G Beads lab; Welding Rubric	Welding Rubric	
Fillet Welds	I, II, III, IV, V, VI, VII, VIII, IX, X, XIII, XIV, XV, XVI, XVII, XVIII, XIX	Steve the Welder Video: FCAWS-G Welding All Positions FCAW-G Fillet Welds Welding Defects and Discontinuities presentation; WEL 204 Fillet Flat (1F) Lab; WEL 204 Fillet Horizontal (2F) Lab; WEL 204 Fillet Vertical (3F) Lab; WEL 204 Fillet Overhead (4F) Lab	Welding Rubric	
Open V-Groove Welds	I, II, III, IV, V, VI, VII, VIII, IX, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX	Steve the Welder video: FCAW-G V-Groove Welds WEL 204 V-Groove Flat (1F) Lab; WEL 204 V-Groove Horizontal (2F) Lab; WEL 204 V-Groove Vertical (3F) Lab; WEL 204 V-Groove Overhead (4F) Lab	Welding Rubric	
AWS Examination		Steve the Welder video: FCAW-G Overview SENSE Level I Welding Process Certification Test	SENSE Level I Welding Process Certification Test	