Course: AG 210-Agricultural Welding

Unit	Objective	CAERT Lesson Plan Library	Unit	Problem Area	Lesson
A. Principles of Welding	1. Identify and follow safe practices in arc welding	Ag Mechanics & Technology	A	5	6
	2. Identify and follow safe practices in gas welding		A	5	4
	3. Select various sizes and types of electrodes		A	5	6
	4. Evaluate different types of arc welding machines		A	5	6
	5. Select gas welding and cutting equipment		A	5	4
	6. Properly assemble gas welding and cutting equipment		A	5	4
	7. Properly secure and shut down arc and gas welding equipment		A	5	4
	8. Select welding rods and fluxes		A	5	6
	9. Prepare equipment and materials for welding		A	5	4
	10. Read drawings and welding symbols				
	11. Identify metal		A	5	1
B. Arc Welding	1. Demonstrate bead welding	Ag Mechanics & Technology	A	5	6
	2. Demonstrate fillet welds for the five types of joints in the flat horizontal position using AC or DC equipment		A	5	6
	3. Demonstrate vertical welding		A	5	6
	4. Demonstrate overhead welding		A	5	6
	5. Test welds for quality and strength of joint				
	6. Apply distrotion control in arc welding		A	5	6
C. Oxy-Acetylene Welding and Cutting	1. Demonstrate bead welding	Ag Mechanics & Technology	A	5	4
	2. Demonstrate fillet welds for the five types of joints in the flat horizontal position		A	5	4
	3. Demonstrate vertical welding		A	5	4
	4. Braze weld mild steel and cast iron		A	5	4
	5. Light and adjust torch flame for specific welding and/or cutting operations		A	5	4
	6. Apply special applications of gas welding				
D. MIG Welding	1. Describe theory of Metal Inert Gas welding	Ag Mechanics & Technology	A	5	7
	2. Demonstrate ability to flat weld		A	5	7
	3. Demonstrate ability to vertical and overhead weld		A	5	7
	4. Apply special applications of arc welding				
E. TIG Welding	1. Describe theory of Tungsten Inert Gas welding	Ag Mechanics & Technology	A	5	8
	2. Demonstrate ability to aluminum weld		A	5	8
	3. Demonstrate ability to weld stainless steel		A	5	8
F. Hard Surfacing	1. Apply hard surfacing through procedures in arc welding				
	2. Apply hard surfacing through procedures in oxy-acetylene welding				
	3. Apply hard surfacing though procedures in forging				