

## SYLLABUS FOR 8 SESSION GTAW (TIG) COURSE

SESSION	TOPICS	VIDEOS	PRE-READ	LECTURE	HANDS-ON
1	Orientation Safety Introduction to TIG Welding	#2 "Intro to TIG Welding"	None	Orientation Safety	Shop Tour TIG Demonstration TIG on steel blocks
2	TIG Welding Systems Equipment Set-up Stringer beads flat	#6 "TIG Essentials" #4 "Equipment Set-up" #5 "Stringer beads flat"	Chapters 1, 2, 3, 15	Components of a TIG System Stringer beads	Equipment Set-up Stringer beads on flat steel
3	TIG Torches & Consumables Lap Joints Corner Joints	#7 "Fillet Lap on Steel" #9 "Fillet Corner on Steel"	Chapter 10	TIG Torches & Consumables	Lap Joints and Corner Joints on steel
4	Butt Joints T Joints Pulsed Current Welding	#10 "Butt Joints Flat" #11 "T Joints Flat" #16 "Pulsed Current"	Chapters 4	Gases, Filler Metals, and Tungsten	Butt & T Joints Begin Projects
5	TIG Welding on Aluminum Pre-weld Preparation Post-weld Procedures Stringers & Laps on Aluminum	#24 "Characteristics of Aluminum" #25 "Stringer on Aluminum" #29 "Fillet Lap on Alum."	Chapters 11, 13	Characteristics of Aluminum Aluminum Alloys Aluminum Prep	Stringer Beads and Lap Joints on aluminum
6	Process Variables Outside corners on aluminum T Joints on aluminum	#28 "Outside Corners" #31 "T Joints" #26 "Process Variables"	Chapter 9	Process Variables and effects on welding	Outside Corners and T Joints on aluminum
7	TIG Welding on Stainless Discontinuities Lap joints on Stainless Outside Corners on Stainless	#18 "Characteristics of Stainless Steel" #20 "Lap on stainless" #21 "Outside Corners"	Chapter 12	Characteristics of Stainless Steel Welding defects	Lap joints and outside corners on stainless steel
8	T Joints on Stainless MIG Welding Overview Plasma Cutting Overview Course Wrap-up	#22 "T-Joints on S.S." "Intro to MIG Welding"	None	MIG Welding Plasma Cutting	MIG Welding Demo Plasma Demo Stainless T Joints Student's Choice

*Any part of this syllabus is subject to change.*