

Jump Start 2.0 Associate of Applied Science: Technical Studies Concentration in Welding
Postsecondary Partner: Northshore Technical Community College

Overview

The mission of the Welding Program is to provide instruction and related hands-on experience in the world of cutting and welding technology. Students who successfully complete the Welding Program will be able to: Integrate safety practices related to specific hazards/environment and personal protective equipment (PPE) to ensure a safe and secure workspace. Structure a productive welding workspace through proper machine set-up, calibration, and material application. Produce quality welds according to specifications and position using the Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW) processes. Produce quality cuts according to specifications using Oxyfuel Cutting (OFC) and Plasma Arc Cutting (PAC) processes. Interpret technical information used on welding drawings and blueprints.

Capstone Credentials

Regional (Emerging)	Basic	Advanced	Fast Forward Advanced Plus
-NCCER Welder Helper -OSHA 30	- Career & Technical Certificate: Welder Fundamentals - Career & Technical Certificate: Welder Helper -NCCER Welding Level 1 - Carpenter International Training Fund (CITF) Career Connections: Level 1	-Technical Diploma: Welding -NCCER Welding Level 2 -Carpenter International Training Fund (CITF) Career Connections: Level 2	Associate of Applied Science: Technical Studies Concentration in Welding

**Core Academic Course*
***Jump Start CTE Course*

Grade 9	
Semester 1	Semester 2
*English I 120331	*U.S. History 220403
*Algebra I 160321	*Physical Science 150802
*Civics 220501/220504	**Intro to Bus Comp Apps 040401
*Physical Education 109105	**Agriscience I 010301

Grade 10	
Semester 1	Semester 2
*English II 121001	*½ Physical Education II 190106 ½ Health Education 190500
*Algebra II 211101	*Biology 150301

*World Geography 220300	**Introduction to Logistics 313831 or Business Computer Applications 040400
**Agriscience II 010302 or Basic Technical Drafting 110560	*Financial Literacy 160345 or Geometry 160323

Additional and/or equivalent TOPS core aligned courses can be found in Bulletin 741.

Grade 11			
Semester 1		Semester 2	
Postsecondary Course	LDOE Course/Code	Postsecondary Course	LDOE Course/Code
**Occupational Orient & Safety WELD 1110	**DE Occ. Orientation & Safety WELD 1110/Occ. Orientation & Safety 890713	**SMAW – Basic Beads WELD 1410	**DE Basic SMAW 313120
**Blueprint/ Metallurgy & Weld Symbols WELD 1120	**DE Basic Blueprint, Metallurgy & Welding Symbols 890721	**SMAW – Fillet Weld WELD 1411	**DE SMAW-Fillet Weld 890718
**Welding Inspection & Testing WELD 1130	**DE Welding Inspection & Testing 890720	**SMAW V Groove BU/Gouge WELD 1412	**DE SMAW-V-Groove Open 890719
**Oxyfuel Systems WELD 1210	** DE Oxyfuel Systems 890714	**SMAW – V – Groove Open WELD 1420	**DE SMAW-V-Groove Open 890719
*English Composition I ENGL 101	*English III: DE-CENL 1013 English Composition I 120601	*Critical Reading and Writing ENGL 102	*English IV: DE – CENL 1023 English Composition II 120607
*College Algebra Fundamentals MATH 1005	*Algebra III: DE-CMAT 1213 College Algebra 216001	**Cutting Processes-CAC/PAC WELD 1310	**DE Cutting Processes-CAC/PAC 890702

Grade 12			
Semester 1		Semester 2	
Postsecondary Course	LDOE Course/Code	Postsecondary Course	LDOE Course/Code
**FCAW – Basic Multi-Joint WELD 2110	**DE FCAW-Basic Fillet Welds 890704	**SMAW – Pipe 5G WELD 1511 or FCAW Pipe 2G WELD 2113 or GTAW – Pipe 2G WELD 2221 or GMAW – Pipe 5G WELD 2321	**TBD
**GTAW – Basic Multi-Joint WELD 2210	**TBD	**SMAW – Pipe 6G WELD 1512 or FCAW Pipe 6G WELD 2114 or GTAW – Pipe 6G WELD 2222 or GMAW – 6G WELD	**TBD

		2322	
**GMAW – Basic Fillet Weld WELD 2310	**DE GMAW-Basic Fillet WELD 890710	*Intro to American Gov POLI 2010	** Government: DE-CPOL 2013 Introduction to American Govt 220514
**SMAW – Pipe 2G WELD 1510 or FCAW Pipe 5G WELD 2112 or GTAW – Pipe 5G WELD 2220 or GMAW – Pipe 2G WELD 2320	**TBD	*Western Civilization I	*Western Civilization: DE - CHIS 1013 Western Civilization I 220446
*Environmental Biology BIOL 1110	*DE General/Physical Science Elective 150899		

This pathway framework is an outline of how the approved courses can be implemented. Schools may opt to rearrange the order of course sequencing in order to meet local scheduling requirements. Additionally, Fast Forward pathways are dynamic and the Jump Start Review Panel will consider course equivalents on an as needed basis.