



South Central College Program Design

CERT 2460/3660 Welding

Program Information

Instructional Level Certificate

Career Cluster Engineering, Manufacturing & Technology

Description

Students will learn how to practice safe welding techniques for production and mechanical settings. They will learn Shielded Arc Metal, Tungsten Arc, and Gas Metal Arc welding, as well as brazing and plasma cutting methods. Print reading skills for welding and metallurgy principals will also be acquired.

Program Admission Dates (Fall and/or Spring)

Fall and Spring

Program Location (North Mankato and/or Faribault)

North Mankato and Faribault

Program Student Learning Outcomes

- 1 Interpret common welding symbols and features of welding prints
- 2 Define the various types of metals and best suited welding techniques
- 3 Apply safety standards and procedures in all settings
- 4 Conduct inspections to ensure quality of welds
- 5 Demonstrate basic Shielded Metal Arc Welding skills
- 6 Demonstrate basic Gas Metal Arc Welding skills
- 7 Demonstrate basic Gas Tungsten Arc Welding skills
- 8 Demonstrate brazing and cutting skills

Program Configurations

Fall or Spring Start

Credits

Technical Course	16
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Total Credits	16
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Semester 1

Course #	Course Title	Credits	Function
WELD 1025	Introduction to Shielded Metal Arc Welding (SMAW)	1	Technical Course
WELD 1035	Introduction to Gas Metal Arc Welding (GMAW)	2	Technical Course
WELD 1045	Introduction to Gas Tungsten Arc Welding	3	Technical Course
WELD 1011	Welding Safety	1	Technical Course
WELD 1055	Cutting and Brazing	3	Technical Course
WELD 1007	Blueprint Reading for Welding	2	Technical Course
WELD 1075	Advanced Welding Lab	4	Technical Course

Program Course List

Number	Title	Credits	Pre/Corequisites
WELD 1007	Blueprint Reading for Welding	2	None
WELD 1011	Welding Safety	1	None
WELD 1025	Introduction to Shielded Metal Arc Welding (SMAW)	1	None
WELD 1035	Introduction to Gas Metal Arc Welding (GMAW)	2	None
WELD 1045	Introduction to Gas Tungsten Arc Welding	3	None
WELD 1055	Cutting and Brazing	3	None
WELD 1075	Advanced Welding Lab	4	WELD 1011