

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. WELD

COURSE NUMBER: 1210

NUMBER OF CREDITS: 2

Lecture: 1 Lab: 1 OJT: 0

Course Title:
Oxy-fuel/Plasma Arc Cutting

Catalog Description:
Oxy-fuel/Plasma Arc Cutting provides the student with basic knowledge and skills in oxyacetylene cutting and welding and plasma arc cutting.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- Goal 1: Communication: By meeting the following competencies:
- Goal 2: Critical Thinking: By meeting the following competencies:
- Goal 3: Natural Sciences: By meeting the following competencies:
- Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- Goal 7: Human Diversity: By meeting the following competencies:
- Goal 8: Global Perspective: By meeting the following competencies:
- Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Safety precautions used when performing oxy-fuel gas cutting and welding
Identify parts of an oxy-fuel outfit
Describe function of parts in an oxy-fuel outfit
Steps required to assemble an oxy-fuel outfit
Steps required to turn on an oxyacetylene outfit
Procedures used to check for leaks in an oxy-fuel system
Lighting and adjusting the flame on an oxyacetylene torch
Shutting off an oxyacetylene welding or cutting outfit
Description of Plasma Arc Cutting

Identification and assembly of Plasma Arc Cutting equipment
Safety precautions when using Plasma Arc Cutting equipment
Setup and performing cuts using Plasma Arc Cutting equipment

Student Learning Outcomes
Recognize a safe work environment and the need for personal safety.
Identify safety precautions that must be taken when using oxy-fuel cutting equipment.
Identify and describe function of parts of an oxy-fuel gas cutting or welding outfit.
Perform basic procedures using oxy-fuel cutting equipment.
Define Plasma Arc Cutting.
Identify safety precautions that must be taken when using Plasma Arc Cutting equipment.
Identify and describe function of parts used for Plasma Arc Cutting.
Set-up and perform cuts using Plasma Arc Cutting equipment.

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <small>*If yes, please list the competencies below</small>

Revised Date: 3/29/2022