WELD126 : Occupational Welding Certificate Shop

General Information

Author:	• Curtis G Potter
Course Code (CB01) :	WELD126
Course Title (CB02) :	Occupational Welding Certificate Shop
Department:	WELD
Proposal Start:	Spring 2025
TOP Code (CB03) :	(0956.50) Welding Technology
CIP Code:	(48.0508) Welding Technology/Welder.
SAM Code (CB09) :	Advanced Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000547308
Curriculum Committee Approval Date:	05/22/2024
Board of Trustees Approval Date:	07/16/2024
Last Cyclical Review Date:	05/22/2024
Course Description and Course Note:	WELD 126 is designed for the student or industrial worker with a welding background to gain practical experience in specific skill areas of concentration, resulting in state welding certification.
Justification:	Mandatory Revision
Academic Career:	• Credit
Mode of Delivery:	
Author:	Curtis G Potter
Course Family:	

Academic Senate Discipline

Primary Discipline:	• Welding
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

☐ Allow Students to Gain Credit by Exam/Challenge

Course Special Class Status (CB13)

Course is not a special class.

Pre-Collegiate Level (CB21)

Not applicable.

Grading Basis

• Grade with Pass / No-Pass Option

Course Support Course Status (CB26)

Course is not a support course

General Education and C-ID

General Education Status (CB25)

Not Applicable

Transferability

Not transferable

Transferability Status

Not transferable

Units and Hours

Summary

Minimum Credit Units (CB07)	1
Maximum Credit Units (CB06)	1
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	0
Total Student Learning Hours	54

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	3	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	54
Studio	0
Total	54
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Studio	0
Total	0

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

WELD117 - Introduction To Welding (in-development)

Objectives

- Perform oxy-fuel welding in all positions and oxy-fuel cutting and brazing, plasma arc cutting.
- Evaluate and critique the finished welding exercises.
- Perform destructive and non-destructive testing on specific weld joints done in all positions.
- Communicate a working knowledge of the use of general shop equipment such as: band saw, drill press, metal cutting shears, radiograph cutter, pedestal and portable grinders, electricwire brush, and various hand tools.

OR

Prerequisite

WELD118 - General Welding (in-development)

Objectives

- Perform shielded metal arc welding and flux cored arc welding of heavy plate.
- Complete the proper testing sequence of electric grinding, coupon cutting, and destructive root bend testing of the weld samples.
- Write a materials list and complete a sketch for an optional final project.

OR

Prerequisite

WELD125 - Advanced Welding Procedures (in-development)

Objectives

- Perform manipulative welding exercises necessary to update skills in that area of concentration, welding process.
- Simulate a certification test in the specific welding process, start to finish testing procedures.
- Evaluate the performance test through testing and weld analysis.

OR

Prerequisite

related occupational experience.

Entry Standards

Entry Standards

Demonstrate a knowledge of safety precautions involved in the proper use of oxy -fuel and related equipment.

Increase his/her knowledge in the use of general shop facilities.

Critically analyze his/her own needs to isolate a field of concentration in the welding area.

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction	Laboratory
Methods of Instruction	Guest Speakers
Methods of Instruction	Lecture
Methods of Instruction	Multimedia
Methods of Instruction	Demonstrations

Out of Class Assignments

- Essay (e.g. description of Metal Inert Gas, MIG, welding process)
- Final project (e.g. ARC/MIG/TIG welding processes comparable to AWS certification project)
- Peer-analyze welding assignments

Methods of Evaluation	Rationale
Exam/Quiz/Test	Testing of weld samples on completion of laboratory assignments
Exam/Quiz/Test	Written final exam
Exam/Quiz/Test	Practical final examination project required (e.g. project to satisfy AWS certification)

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
No Value	No Value	No Value	No Value	No Value

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Consolidate welding experiences into preparation for one specific certification.

Use the shop facilities to prepare, weld, and test the specific certification weldment;

Critically analyze the results of the test, and determine if it is satisfactory or unsatisfactory.

Perform operations needed to satisfactory update skills to pass the certification test.

Demonstrate welding experiences in preparation for one specific certification.

SLOs

Perform and apply necessary operations needed to pass welding certification test at 80% or higher. Expected Outcome Performance: 70.0

ILOs Core ILOs	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
WELD Welding - Certificate	demonstrate the skills necessary to read engineering drawings, solve technical mathematics problems as they relate to welding tasks.
WELD Welding - A.S. Degree Major	demonstrate the skills necessary to read engineering drawings, solve technical mathematics problems as they relate to welding tasks.

Prepare and use shop facilities to weld and test personal personal project for certification. Expected Outcome Performance: 70.0

ILOs Core ILOs	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
	Practice ethical and responsible behavior within personal, academic, professional, social, and societal contexts; recognize and welcome diverse lifestyle choices that promote physical, intellectual, psychological, and social well-being.
WELD Welding - A.S. Degree Major	complete introductory and advanced level welding projects using various techniques and procedures.
WELD Welding - Certificate	complete introductory and advanced level welding projects using various techniques and procedures.

Examine and perform safely while evaluating personal performance in testing and weld analysis. Expected Outcome Performance: 70.0

ILOs Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
	Practice ethical and responsible behavior within personal, academic, professional, social, and societal contexts; recognize and welcome diverse lifestyle choices that promote physical, intellectual, psychological, and social well-being.
WELD Welding - Certificate	complete introductory and advanced level welding projects using various techniques and procedures.
	demonstrate the skills necessary to read engineering drawings, solve technical mathematics problems as they relate to welding tasks.
WELD Welding - A.S. Degree Major	complete introductory and advanced level welding projects using various techniques and procedures.
	demonstrate the skills necessary to read engineering drawings, solve technical mathematics problems as they relate to welding tasks.

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

No value

Laboratory/Studio Content

Certification Requirements for an Individual's Specific Area (4 hours)

Certification Preparation of Weld Test Specimens (4 hours)

Certification Manual Practice of Weld Specimens (46 hours)

Total hours: 54

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

No

GCC Major Requirements

No Value

GCC General Education Graduation Requirements

No Value

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liason?

Adina Lerner (Technology & Aviation, Visual & Performing Arts)

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value