

**Clackamas Community College**

## Online Course/Outline Submission System

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AB-112 Collision Repair Welding I

General education certified:  Yes  No Writing Oral Communication Arts and Letters Science & Computer Science Mathematics Social Science Cultural Literacy Health & Physical Education Approved Date (mm/dd/yyyy):  /  / 

Submit

**Section #1 General Course Information****Department:**Automotive**Submitter**

First Name: John

Last Name: Phelps

Phone: 6378

Email: johnp

**Course Prefix and Number:**AB - 112**# Credits:**2**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 48

Lab (# of hours):

Total course hours: 48

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

**Course Title:**Collision Repair Welding I

**Course Description:**

Focus on auto collision damage repair. Emphasis is on Metal Inert Gas (MIG), Gas Metal Arc Welding (GMAW), welding on light gauge metals, oxygen-acetylene cutting.

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**Type of Course:**Career Technical Preparatory

Is this class challengeable?

**Yes**

Can this course be repeated for credit in a degree?

**No**

Is general education certification being sought at this time?

**No**

Does this course map to any general education outcome(s)?

**No**

Is this course part of an AAS or related certificate of completion?

**Yes**

**Name of degree(s) and/or certificate(s):**Collision Repair & Refinishing Technology

Are there prerequisites to this course?

**No**

Are there corequisites to this course?

**No**

Are there any requirements or recommendations for students taken this course?

**No**

Are there similar courses existing in other programs or disciplines at CCC?

**No**

Will this class use library resources?

**No**

Is there any other potential impact on another department?

**No**

Does this course belong on the Related Instruction list?

**No**

GRADING METHOD:

A-F or Pass/No Pass

**Audit:No**

When do you plan to offer this course?

- ✓ **Fall**
- ✓ **Winter**
- ✓ **Spring**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

**No**

Will this course appear in the college catalog?

**Yes**

Will this course appear in the schedule?

**Yes**

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. safely use all cutting and welding equipment covered in the course,
2. make welds on steel between 16 and 22 gauge thickness that are judged sound,
3. weld in all positions (flat, horizontal, vertical, and overhead) using the GMAW process;
4. determine if the welds made are fit for service in a modern automobile.

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***This course does not include assessable General Education outcomes.***

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Major Topic Outline:

1. Equipment set-up and safety information.
  - a. GMAW (Gas Metal Arc Welding) process.
  - b. OAC (Oxygen-Acetylene Cutting) process.
2. Correct set-up of GMAW equipment, in preparation of welding.
3. Demonstrations of correct GMAW welding procedures for LAHS (High Strength Steel). Welds are to be performed in all positions (flat, horizontal, vertical and overhead) on light gauge material (approx. 16 – 22 gauge).
  - a. Butt welds with and without backing.
  - b. Lap welds.
  - c. Plug welds.
  - d. Special application: hole-fill, patch, fit-up, sleeve inserts.

4. Demonstration of correct OAC procedures on mild steel materials.
  - a. Setting up of OAC equipment.
  - b. Piercing of metal to produce holes
5. Cover the contents of I-CAR. enhanced CD training program 1 and 5.

Does the content of this class relate to job skills in any of the following areas:

- |                                      |           |
|--------------------------------------|-----------|
| 1. Increased energy efficiency       | <b>No</b> |
| 2. Produce renewable energy          | <b>No</b> |
| 3. Prevent environmental degradation | <b>No</b> |
| 4. Clean up natural environment      | <b>No</b> |
| 5. Supports green services           | <b>No</b> |

Percent of course:0%

First term to be offered:

**Next available term after approval**

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