

Washtenaw Community College Comprehensive Report

ATT 209 Advanced Metal Shaping Effective Term: Fall 2025

Course Cover

College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: Transportation Technologies

Discipline: Automotive & Transportation Tech (new)

Course Number: 209

Org Number: 14100

Full Course Title: Advanced Metal Shaping

Transcript Title: Advanced Metal Shaping

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Course Change

Change Information:

Consultation with all departments affected by this course is required.

Outcomes/Assessment

Rationale: Update the course for the new discipline.

Proposed Start Semester: Fall 2024

Course Description: In this course, students will work individually and as a team to complete projects made from various types of metal. Areas of study will include: sheet metal shaping with hand and power tools over wooden "bucks," and layout of multi-piece projects through the use of cardboard templates, then transferred to metal. Procedures used in this class will consist of riveting, bell flanging, welding, English wheel and many others. This course was previously ABR 209.

Course Credit Hours

Variable hours: No

Credits: 2

Lecture Hours: Instructor: 30 **Student:** 30

The following Lab fields are not divisible by 15: Student Min, Instructor Min

Lab: Instructor: 22.5 **Student:** 22.5

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 52.5 **Student:** 52.5

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites**Prerequisite**

ATT 119 minimum grade B-

General Education**Request Course Transfer**

Proposed For:

Student Learning Outcomes

1. Identify sheet metal grades and properties used for component shaping and forming.

Assessment 1

Assessment Tool: Outcome-related exam questions

Assessment Date: Fall 2025

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 75% of the students will score 75% or higher.

Who will score and analyze the data: Departmental faculty

2. Perform sheet metal forming and shaping in accordance with safety standards set by the department.

Assessment 1

Assessment Tool: Outcome-related skills checklist

Assessment Date: Fall 2025

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of the students will score an average of 3.5 of 5 (70%) or higher.

Who will score and analyze the data: Departmental faculty

3. Construct and assemble multiple-piece metal projects.

Assessment 1

Assessment Tool: Outcome-related skills checklist

Assessment Date: Fall 2025

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of the students will score an average of 3.5 of 5 (70%) or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify proper sheet metal thickness and grade.
2. Demonstrate the ability to apply fundamental principles of sheet metal shaping and forming
3. Construct templates from wood and cardboard for metal shaping.
4. Transfer templates to metal.
5. Demonstrate the ability to measure and layout complicated forming "bucks" for sheet metal construction.

6. Cut and shape metal according to template.
7. Locate and reduce surface irregularities on handcrafted metal panels.
8. Identify and apply proper welding equipment and consumables for joining sheet metal projects.
9. Fit and adjust multiple-piece sheet metal projects.
10. Assemble a finished project according to the plan.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Shawn Deron</i>	<i>Faculty Preparer</i>	<i>Mar 27, 2024</i>
Department Chair/Area Director: <i>Rocky Roberts</i>	<i>Recommend Approval</i>	<i>Mar 27, 2024</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Apr 03, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Mar 20, 2025</i>
Assessment Committee Chair: <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Mar 20, 2025</i>
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Mar 21, 2025</i>

Washtenaw Community College Comprehensive Report

ABR 209 Advanced Metal Shaping Effective Term: Fall 2017

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Automotive Body

Discipline: Auto Body Repair

Course Number: 209

Org Number: 14110

Full Course Title: Advanced Metal Shaping

Transcript Title: Advanced Metal Shaping

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: New Course

Change Information:

Rationale: new course based upon student demand

Proposed Start Semester: Fall 2017

Course Description: In this course, students will work individually and as a team to complete projects made from various types of metal. Areas of study will include: sheet metal shaping with hand and power tools over wooden "bucks," and layout of multi-piece projects through the use of cardboard templates, then transferred to metal. Procedures used in this class will consist of riveting, bell flanging, welding, English wheel and many others.

Course Credit Hours

Variable hours: No

Credits: 2

Lecture Hours: Instructor: 30 **Student:** 30

The following Lab fields are not divisible by 15: Student Min, Instructor Min

Lab: Instructor: 22.5 **Student:** 22.5

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Total Contact Hours: Instructor: 52.5 **Student:** 52.5

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

Prerequisite

ABR 119 minimum grade "B-"

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Analyze sheet metal grades and properties used in shaping and forming.

Assessment 1

Assessment Tool: Final exam.

Assessment Date: Winter 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections.

Number students to be assessed: All students.

How the assessment will be scored: Final Exams will be scored against the answer sheet.

Standard of success to be used for this assessment: 75% of the students will score 75% or higher.

Who will score and analyze the data: Department chair and instructors.

2. Perform sheet metal forming and shaping in accordance w/safety standards set by the department.

Assessment 1

Assessment Tool: Student Achievement Record.

Assessment Date: Winter 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections.

Number students to be assessed: All students.

How the assessment will be scored: Student achievement record will be scored using a departmentally-developed rubric.

Standard of success to be used for this assessment: 75% of the students will score an average of 3.5 of 5 (70%) or higher.

Who will score and analyze the data: Department chair and instructors.

3. Construct and assemble multiple piece metal projects.

Assessment 1

Assessment Tool: Student Achievement Record.

Assessment Date: Winter 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections.

Number students to be assessed: All students.

How the assessment will be scored: Student achievement record will be scored using a departmentally-developed rubric.

Standard of success to be used for this assessment: 75% of the students will score an average of 3.5 of 5 (70%) or higher.

Who will score and analyze the data: Department chair and instructors.

Course Objectives

1. Identify proper sheet metal thickness and grade.
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4. Transfer templates to metal.
5. Demonstrate the ability to measure and layout complicated forming "bucks" for sheet metal construction.
6. Cut and shape metal according to template.
7. Locate and reduce surface irregularities on hand crafted metal panels.
8. Identify and apply proper welding equipment and consumables for joining sheet metal projects.
9. Fit and adjust multiple piece sheet metal projects.
10. Assemble a finished project according to the plan.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer:		
<i>Timothy VanSchoick</i>	<i>Faculty Preparer</i>	<i>Feb 22, 2017</i>
Department Chair/Area Director:		
<i>Gary Sobbry</i>	<i>Recommend Approval</i>	<i>Feb 22, 2017</i>
Dean:		
<i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Mar 01, 2017</i>
Curriculum Committee Chair:		
<i>David Wooten</i>	<i>Recommend Approval</i>	<i>Mar 26, 2017</i>
Assessment Committee Chair:		
<i>Ruth Walsh</i>	<i>Recommend Approval</i>	<i>Mar 26, 2017</i>
Vice President for Instruction:		
<i>Kimberly Hurns</i>	<i>Approve</i>	<i>Mar 27, 2017</i>