

Washtenaw Community College Comprehensive Report

ABR 123 Technical Auto Body Repair Effective Term: Winter 2022

Course Cover

College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: Transportation Technologies

Discipline: Auto Body Repair (new)

Course Number: 123

Org Number: 14100

Full Course Title: Technical Auto Body Repair

Transcript Title: Technical Auto Body Repair

Is Consultation with other department(s) required: No

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

Reason for Submission: Three Year Review / Assessment Report

Change Information:

Consultation with all departments affected by this course is required.

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: Three Year Review/ Assessment Report

Proposed Start Semester: Fall 2021

Course Description: In this course, students will explore all aspects of body panel modification including fender sectioning, door skinning and outer panel replacement. In addition, students will use specialty equipment such as a hydraulic ram to demonstrate basic bumping techniques. Students will learn sheet metal welding and cutting processes as well as how to correctly set up and use a frame straightening machine. Emphasis is placed on quality, craftsmanship and excellent work habits.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 60 Student: 60

Lab: Instructor: 45 Student: 45

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 105 Student: 105

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 111 minimum grade "C"

General Education**Request Course Transfer**

Proposed For:

Student Learning Outcomes

1. Analyze vehicle damage and determine structural tolerances and repair techniques.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Fall 2024

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: Answer key

Standard of success to be used for this assessment: 80% of students will score 85% or higher.

Who will score and analyze the data: Departmental faculty

2. Evaluate body panel damage and determine needed repair procedures and techniques.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Fall 2024

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: Answer key

Standard of success to be used for this assessment: 80% of students will score 85% or higher.

Who will score and analyze the data: Departmental faculty

3. Identify and demonstrate principles of welding and cutting in accordance with I-CAR standards.

Assessment 1

Assessment Tool: Outcome-related skills checklist

Assessment Date: Fall 2024

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: Departmental rubric

Standard of success to be used for this assessment: 80% of students will score 85% or higher.

Who will score and analyze the data: Departmental faculty

4. Demonstrate ability to restore damaged panels to factory specifications.

Assessment 1

Assessment Tool: Outcome-related skills checklist

Assessment Date: Fall 2024

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: Departmental rubric

Standard of success to be used for this assessment: 80% of students will score 85% or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Explore vehicle measurement activities.
2. Demonstrate the ability to apply fundamental principles of collision damage repair.
3. Diagnose and measure unibody vehicles using a universal measuring system (mechanical, electronic, and laser).
4. Diagnose and measure structural damage using tram and self-centering gauges.
5. Determine the correct GMAW (MIG) welder type, electrode, wire type, diameter, and gas to be used in a specific welding situation.
6. Identify cutting processes for different materials and locations and perform cutting operations.
7. Straighten and rough-out contours of damaged panels to a suitable condition for body filling or metal finishing using power tools, hand tools, and weld-on pull attachments.
8. Replace door skin, restore corrosion protection and perform panel bonding.
9. Identify structural tolerances related to specific vehicle manufacturers.
10. Analyze outer body panel damage and determine repair or replace procedures.
11. Develop a vehicle repair plan and a cost estimate.
12. Demonstrate all I-CAR vehicle-specific welds in the flat, vertical, and overhead positions.
13. Demonstrate the ability to utilize hydraulic rams in a structural straightening procedure.

New Resources for Course

Course Textbooks/Resources

Textbooks

Thomas/Jund. *Collision Repair and Refinishing: A Foundation Course for Technicians*, 3rd ed. New York: Delmar, 2018, ISBN: 9781305949942.

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Robert Lowing</i>	<i>Faculty Preparer</i>	<i>Aug 03, 2021</i>
Department Chair/Area Director: <i>Rocky Roberts</i>	<i>Recommend Approval</i>	<i>Aug 09, 2021</i>
Dean: <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>Aug 19, 2021</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Oct 27, 2021</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Oct 28, 2021</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Oct 29, 2021</i>