

AB R003: INTRODUCTION TO ESTIMATING AUTO BODY DAMAGE

Originator

ptrujillo

Co-Contributor(s)
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College

Oxnard College

Discipline (CB01A)

AB - Automotive Body Repair&Paint

Course Number (CB01B)

R003

Course Title (CB02)

Introduction to Estimating Auto Body Damage

Banner/Short Title

Estimating Damage/Repair

Credit Type

Credit

Start Term

Fall 2021

Catalog Course Description

This course is designed to prepare students with the necessary skills in writing estimates or accident reports for non-structural refinishing and repair of automobile damage. Course is offered Pass/No Pass (P/NP) at student's option.

Taxonomy of Programs (TOP) Code (CB03)

0949.00 - *Automotive Collision Repair

Course Credit Status (CB04)

D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)

C (Not transferable)

Course Basic Skills Status (CB08)

N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)

C - Clearly Occupational

Course Cooperative Work Experience Education Status (CB10)

N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)

Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)

N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)

Y - Not Applicable

Course Noncredit Category (CB22)

Y - Credit Course

Funding Agency Category (CB23)

Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)

1 - Program Applicable

General Education Status (CB25)

Y - Not Applicable

Support Course Status (CB26)

N - Course is not a support course

Field trips

May be required

Grading method

Letter Graded

Alternate grading methods

Student Option- Letter/Pass
Pass/No Pass Grading

Does this course require an instructional materials fee?

No

Repeatable for Credit

No

Is this course part of a family?

No

Units and Hours

Carnegie Unit Override

No

In-Class

Lecture

Minimum Contact/In-Class Lecture Hours

35

Maximum Contact/In-Class Lecture Hours

35

Activity

Laboratory

Minimum Contact/In-Class Laboratory Hours

105

Maximum Contact/In-Class Laboratory Hours

105

Total in-Class

Total in-Class

Total Minimum Contact/In-Class Hours

140

Total Maximum Contact/In-Class Hours

140

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class

Minimum Outside-of-Class Hours

70

Maximum Outside-of-Class Hours

70

Total Student Learning

Total Student Learning

Total Minimum Student Learning Hours

210

Total Maximum Student Learning Hours

210

Minimum Units (CB07)

4

Maximum Units (CB06)

4

Prerequisites

AB R002

Entrance Skills

Prerequisite Course Objectives

- AB R002-Perform basic metal shaping.
- AB R002-Prepare and apply solder and plastic fillers.
- AB R002-Demonstrate proficiency in welding and cutting procedures for auto body repair.
- AB R002-Prepare a repair job for priming and prime metal; use spray equipment.
- AB R002-Perform panel removal and installation.

Entrance Skills

1. Perform basic metal shaping.
2. Prepare and apply solder and plastic fillers.
3. Demonstrate proficiency in welding and cutting procedures for auto body repair.
4. Prepare a repair job for priming and prime metal; use spray equipment.
5. Perform panel removal and installation.

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AB R002-Prepare a repair job for priming and prime metal; use spray equipment.
 AB R002-Perform panel removal and installation.

Requisite Justification

Requisite Type

Prerequisite

Requisite

AB R002

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Content review

Student Learning Outcomes (CSLOs)

Upon satisfactory completion of the course, students will be able to:

- | | |
|---|---|
| 1 | Write a basic estimate for replacing damage panels. |
| 2 | Write an estimate for body work repair. |
| 3 | Students will know how to find specific parts that need replacement, using the Mitchell collision estimating guide. |
| 4 | Students will know how to identify nonstructural damage, structural damage and cosmetic repair. |

Course Objectives

Upon satisfactory completion of the course, students will be able to:

- | | |
|---|---|
| 1 | Describe what happens to a motor vehicle during a collision. |
| 2 | Explain the major work areas of a typical collision repair facility. |
| 3 | Describe the types of positions or jobs available in the collision repair industry. |
| 4 | Summarize the workflow through a typical collision repair facility. |
| 5 | Explain the general purpose of damage estimates. |
| 6 | Manually and electronically prepare an estimate. |
| 7 | Explain the difference between flat-rate labor time and overlap labor time when estimating. |
| 8 | Determine whether damaged parts should be repaired or replaced with new ones. |
| 9 | Calculate materials costs based on a refinishing materials list. |

Course Content

Lecture/Course Content

1. Collision Repair Careers
 - a. Typical body and paint operations
 - b. Metalworking shop
 - c. Other career opportunities
 - d. Other shop personnel
2. Service Information Specifications, and Measurements
 - a. Service information
 - b. Vehicle identification
 - c. Using service information
 - d. Collision repair measurements
3. Estimating Repair Costs
 - a. The estimate
 - b. Part prices
 - c. Labor costs

- d. Refinishing time
- e. Estimate total
- f. Vehicle total loss
- 4. Vehicle Construction
 - a. Major body sections
 - b. Body classifications
 - c. Body-over-frame considerations
 - d. Unibody design factors
- 5. Body and Frame Damage
 - a. Impact and its effects on a vehicle
 - b. Visually determining the extent of impact damage
 - c. Diagnosing damage using gauge measuring systems
 - d. Tram gauges
- 6. Passenger Compartment Service
 - a. Passenger compartment assemblies
 - b. Interior trim
 - c. Seat service
 - d. Carpeting service
 - e. Dash panel service
- 7. Restraint System Operation and Service
 - a. Seat belt systems
 - b. Seat Belt Service
 - c. Air bag system operation
 - d. Servicing air bag systems
- 8. Vehicle Glass Technology
 - a. Glass Service
 - b. Door and door glass adjustments
 - c. Door glass service
 - d. Rearview mirror service
- 9. Panel Replacement and Adjustment
 - a. Custom body panels
 - b. Truck bed service
 - c. Sound-deadening pads
 - d. Installing body trim and moldings
 - e. Fender and hood adjustment

Laboratory or Activity Content

- 1. Collision Repair Careers
 - a. Typical body and paint operations
 - b. Metalworking shop
 - c. Other career opportunities
 - d. Other shop personnel
- 2. Service Information Specifications, and Measurements
 - a. Service information
 - b. Vehicle identification
 - c. Using service information
 - d. Collision repair measurements
- 3. Estimating Repair Costs
 - a. The estimate
 - b. Part prices
 - c. Labor costs
 - d. Refinishing time
 - e. Estimate total
 - f. Vehicle total loss
- 4. Vehicle Construction
 - a. Major body sections
 - b. Body classifications

- c. Body-over-frame considerations
- d. Unibody design factors
- 5. Body and Frame Damage
 - a. Impact and its effects on a vehicle
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- 6. Passenger Compartment Service
 - a. Passenger compartment assemblies
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Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):

Problem solving exercises
Skills demonstrations

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):

Laboratory activities
Projects
Problem-Solving Assignments
Quizzes
Skills demonstrations
Skill tests

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Audio-visual presentations
Computer-aided presentations
Class activities
Class discussions
Distance Education
Guest speakers
Instructor-guided interpretation and analysis
Instructor-guided use of technology
Laboratory activities
Lecture

Describe specific examples of the methods the instructor will use:

1. Discussion of previous textbook assignment followed by specific examples from textbook and automotive technical manual.
2. The use of audio and video aids.
3. Use of computers to write estimates.
4. Shop assignments

Representative Course Assignments**Writing Assignments**

1. Students will be required to take test and answer the review questions at the end of each assigned textbook chapter.
2. Students will be required to do online work in canvas.

Critical Thinking Assignments

1. Explain the general purpose of damage estimates.
2. Manually prepare an estimate.
3. Explain the difference between flat-rate labor time and overlap labor time when estimating.
4. Determine whether damaged parts should be repaired or replaced with new ones.
5. Calculate materials costs based on a refinishing materials list.

Reading Assignments

1. In addition to the textbook assignments, students will be required to do outside of classroom reading of professional journals. Like Body shop business, Classic car and Hot rod.
2. Online videos in auto body and painting repair.

Skills Demonstrations

1. Describe what happens to a motor vehicle during a collision.
2. Explain the major work areas of a typical collision repair facility.
3. Describe the types of positions or jobs available in the collision repair industry.
4. Summarize the workflow through a typical collision repair facility.

Outside Assignments**Representative Outside Assignments**

1. Students will be required to take test and answer the review questions at the end of each assigned textbook chapter.
2. Students will be required to do online work in canvas.
3. Students will be working on their own projects working on their cars or trucks.

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals

Resource Type

Textbook

Description

James E. Duffy, and Jonathan Beaty (2020). *Text book and mind-Tap. Auto Body Repair Technology (7th)*. Cengage Learning. 200 Pier 4 Boulevard Boston, MA 02210.

Resource Type

Textbook

Description

James E. Duffy, and Jonathan Beaty (2020). *Text book and mind-Tap. Auto Body Repair Technology (7th)*. Cengage Learning. 200 Pier 4 Boulevard Boston, MA 02210.

Resource Type

Other Instructional Materials

Description
Safety glasses.

Distance Education Addendum

Definitions

Distance Education Modalities

Hybrid (1%–50% online)

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

Regular Effective/Substantive Contact

Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Other DE (e.g., recorded lectures)	Faculty may use a variety of tools and media along with the learning management system to insure ADA compliance. Not limited to but inclusive of a broad range of options online and on campus, such as library resources, websites and multimedia suppliers.
Video Conferencing	Recordings of proper techniques and processes will be available. Real time video available scheduled and unscheduled.
E-mail	Email communication is available at any time. Announcements and messages will be used regularly to update and clarify assignments.
Asynchronous Dialog (e.g., discussion board)	Regular use of asynchronous discussion boards will be used for online activities. Questions and topics will be posted for meaningful discussion between faculty and required between students.
Face to Face (by student request; cannot be required)	Students will have hands on face to face contact with projects and skill instruction on campus and instructor lead. Many skills developed through this course can not be performed online. Welding, metal grinding, metal repair, sanding, structural repairs, painting and many hands on activities must be observed and demonstrated by instructor.
Synchronous Dialog (e.g., online chat)	Students may be notified of special instances of synchronous contact through online means.
Telephone	Will be available when on ground labs are available.

Examinations

Hybrid (1%–50% online) Modality

Online
On campus

Primary Minimum Qualification

AUTO BODY TECHNOLOGY

Review and Approval Dates

Department Chair

09/16/2020

Dean

09/16/2020

Technical Review

10/28/2020

Curriculum Committee

10/28/2020

Curriculum Committee

12/09/2020

CCCCO

MM/DD/YYYY

Control Number

CCC000254890

DOE/accreditation approval date

MM/DD/YYYY