

COURSE OUTLINE

- I. COURSE TITLE: Auto Body & Fender COOP
- II. CBEDS TITLE: Automotive Body Repair and Refinishing - COOP
- III. CBEDS NUMBER: 5654
- IV. JOB TITLES:

Automobile – Body Repair	807-381-010
Automobile – Body Customizer	807-361-010
Auto Body Repair, Fiberglass	807-381-030
Frame Repair	807-381-484
Service Mechanic	807-381-022
Automobile Bumper Straightener	807-684-010
Glass Installer	865-568-010
Squeak, Rattle & Leak	620-364-010
Used Car Renovator	620-684-010
Shop Estimator	807-267-010

V. COURSE DESCRIPTION:

FIRST SEMESTER:

Setting student performance standards. Each student is required to do two "controlled projects". One, constructing a plastic model of a car or truck, thus learning the names of the parts and the basic construction of the automobile. The second being a metal panel. The project "panel" covers the basic skills and procedures in Auto Body Repair and Refinishing. In conjunction with each skill; welding, bumping and dinging, applying plastic fillers, primers and paints, students are presented with lectures/demos, filmstrips, videos, worksheets and written test.

SECOND SEMESTER:

Working environment with "live projects" to accustom students to the business of Auto Body and Repair. Students apply skills and knowledge from first semester to profitably and economically repair typical collisions work. Students who have shown competence in their knowledge and skills; developed appropriate attitudes and work habits will be recommended for placement in a community classroom, a part time job or a full time position in a local body shop.

VI. HOURS: 180 hours/semester 525 total hours

VII. PREREQUISITES: 16 Years of age or older

VIII. DATE: Board Approved: 6/2/99  
 Prepared by: Richard E. Brown  
 Date Completed: January 27, 1999  
 Course Outline Classification: Revised

IX. COURSE OUTLINE:

- a. CONTENT AREA SKILLS:
  - i. EXPECTED STUDENT OUTCOMES
  - ii. HOURS OF INSTRUCTION

**APPROVED**

JUN 18 2008

## COURSE OUTLINE

CONTENT AREA SKILLS	EXPECTED STUDENT OUTCOME	HOURS		
		CL = Classroom	CC = Comm. Class	CP = Co-op Ed.
<b>Instruction will include:</b>	<b>Students will be able to:</b>	CL	CC	CP
I. Shop Safety / Orientation	<ol style="list-style-type: none"> <li>1. Pass a written safety test</li> <li>2. Knowledge of:               <ol style="list-style-type: none"> <li>a. Health and safety environment set-ups</li> <li>b. Performance competencies</li> <li>c. Advancement, pay scale, and fringe benefits</li> <li>d. Union relationships</li> <li>e. Programs of various auto body repair and related occupations</li> </ol> </li> </ol>	20		
II. Body and Frame Construction	<ol style="list-style-type: none"> <li>1. Explain the history, production and make-up of the product being worked on</li> <li>2. Explain how sheet metal is formed into body panels and how strength is formed into the metal</li> <li>3. Explain the difference between conventional bodies and cabs and unit construction</li> <li>4. Identify and explain the different types of frames and body types used in cars today</li> <li>5. name and identify the major body parts, sections, and panels that make up the automobile</li> </ol>	50		
III. Metal Bumping and Dinging	<ol style="list-style-type: none"> <li>1. Identify:               <ol style="list-style-type: none"> <li>a. Body hammers</li> <li>b. Dolly blocks</li> <li>c. Body files</li> <li>d. Spoons and other hand tools</li> </ol> </li> <li>2. Explain and demonstrate the proper use of body hammers and roughing and finish work</li> <li>3. Explain and demonstrate methods of hammer and dolly work and pick and file</li> </ol>	65		
IV. How to Approach a Collision Job	<ol style="list-style-type: none"> <li>1. Explain methods used to determine:               <ol style="list-style-type: none"> <li>a. Direction of damage</li> <li>b. Pressure forces acting on it</li> </ol> </li> <li>2. Describe the difference between direct and indirect damage</li> <li>3. Fill out an estimate sheet, figuring the cost and tax, total labor hours, and cost of materials</li> </ol>	50		
V. Welding	<ol style="list-style-type: none"> <li>1. Properly set up the oxy-acetylene welder</li> <li>2. Demonstrate the operations in welding of:               <ol style="list-style-type: none"> <li>a. Brazing</li> <li>b. Soldering</li> <li>c. Cutting and shrinking of metal</li> </ol> </li> <li>3. Explain the MIG or wire welder and make sample welds of various joints</li> <li>4. Make at least one weld with the arc welder</li> </ol>	75		
VI. Adhesives, Coating, and Sealers	<ol style="list-style-type: none"> <li>1. Prepare and apply plastic fillers, primer, and putty</li> <li>2. Finish filler to shop standards</li> <li>3. Sand, feather-edge, and apply primer</li> </ol>	85		
VII. Refinishing Practices	<ol style="list-style-type: none"> <li>1. Clean and sand in preparation for painting</li> <li>2. Mix and apply both lacquer and enamel paints</li> <li>3. Explain and do masking and detailing practices</li> </ol>	160		

IX. COURSE OUTLINE:

- b) CAREER PERFORMANCE STANDARDS
  - i) EXPECTED STUDENT OUTCOMES
  - ii) HOURS OF INSTRUCTION

**COURSE OUTLINE**

CAREER PERFORMANCE STANDARDS	EXPECTED STUDENT OUTCOMES	HOURS
<p><b>Instruction will include:</b></p>	<p><b>Student will be able to:</b></p>	
<p><b>1. Personal Skills</b></p> <ul style="list-style-type: none"> <li>▪ Classroom policies &amp; procedures</li> <li>▪ Ethics               <ul style="list-style-type: none"> <li>➢ Work</li> <li>➢ Business</li> </ul> </li> <li>▪ Sexual harassment laws</li> <li>▪ Personal skills, including positive attitude, self-confidence, honesty, perseverance &amp; self-discipline</li> <li>▪ Professional appearance</li> <li>▪ Time management</li> <li>▪ Lifelong learning</li> </ul>	<p><b>1. Understand how personal skill development, including positive attitude, honesty, self-confidence, time management, &amp; other positive traits affect employability.</b></p> <ul style="list-style-type: none"> <li>▪ Demonstrate and understand classroom policies &amp; procedures</li> <li>▪ Define work and business ethics &amp; demonstrate the importance of ethical standards &amp; social responsibilities in the business environment.</li> <li>▪ Discuss the laws applicable to sexual harassment &amp; discuss tactics for handling harassment situations.</li> <li>▪ Demonstrate personal skills in class and/or business environment:               <ul style="list-style-type: none"> <li>➢ Positive attitude</li> <li>➢ Self-confidence</li> <li>➢ Honesty</li> <li>➢ Perseverance</li> <li>➢ Self-discipline</li> </ul> </li> <li>▪ Demonstrate and model personal hygiene and acceptable professional attire</li> <li>▪ Prioritize tasks and meet deadlines</li> <li>▪ Explain the importance of lifelong learning</li> </ul>	<p><b>Integrated in content area skills</b></p>
<p><b>2. Interpersonal Skills</b></p> <ul style="list-style-type: none"> <li>▪ Group dynamics</li> <li>▪ Conflict resolution and negotiations</li> <li>▪ Team Work</li> <li>▪ Etiquette across gender and cultural groups</li> </ul>	<p><b>2. Understand principles of effective interpersonal skills, including group dynamics, conflict resolution, and negotiation.</b></p> <ul style="list-style-type: none"> <li>▪ Identify and explain the key concepts of group dynamics</li> <li>▪ Discuss and demonstrate the dynamics of conflict resolution and negotiation, and their importance within the business environment</li> <li>▪ Demonstrate effective teamwork, share responsibilities, accept supervision and assume leadership roles</li> <li>▪ Demonstrate cooperative working relationships and proper etiquette across gender and cultural groups</li> </ul>	<p><b>Integrated in content area skills</b></p>
<p><b>3. Thinking and Problem-Solving Skills</b></p> <ul style="list-style-type: none"> <li>▪ Critical and creative thinking skills</li> <li>▪ Logical reasoning and problem-solving skills</li> <li>▪ Numerical estimation, measurement, and</li> </ul>	<p><b>3. Understand the importance of critical thinking and problem-solving skill in the workplace.</b></p> <ul style="list-style-type: none"> <li>▪ Apply critical and creative thinking skills in a work environment and implement a plan of improvement as</li> </ul>	<p><b>Integrated in content area skills</b></p>

<p>calculation</p> <ul style="list-style-type: none"> <li>▪ Identify, locate, and organize needed information and propose, evaluate, and select alternative solutions</li> </ul>	<p>needed</p> <ul style="list-style-type: none"> <li>▪ Demonstrate logical reasoning and problem solving skills in a work environment</li> <li>▪ Apply numerical estimation, measurement and calculation skills to business applications including the following: <ul style="list-style-type: none"> <li>➢ Whole number math</li> <li>➢ Decimals &amp; fractions</li> <li>➢ Counting &amp; monetary functions</li> <li>➢ Use of tables &amp; graphs</li> </ul> </li> <li>▪ Recognize problem situations; identify, locate and organize needed information, and propose, evaluate and select from alternate solutions</li> </ul>	
<p><b>4. Communication Skills</b></p> <ul style="list-style-type: none"> <li>▪ Written communication</li> <li>▪ Verbal and Nonverbal communication</li> <li>▪ Active and effective listening</li> <li>▪ Proper etiquette in business communications</li> <li>▪ Writing and editing skills</li> <li>▪ Use of reference material and handbooks</li> <li>▪ Oral presentations</li> </ul>	<p><b>4. Understand principles of effective communication.</b></p> <ul style="list-style-type: none"> <li>▪ Read and implement written instructions, technical manuals, written communication, and reference books</li> <li>▪ Present a positive image of verbal and nonverbal communication through use of appropriate methods</li> <li>▪ Demonstrate active and effective listening skills through verbal, nonverbal and written feedback</li> <li>▪ Demonstrate proper etiquette in business communications, including an awareness of and a requisite for international communications (languages, customs, and time zones)</li> <li>▪ Demonstrate the following writing and editing skills: <ul style="list-style-type: none"> <li>➢ Use correct grammar, punctuation, capitalization, vocabulary and spelling</li> <li>➢ Write, proofread and edit</li> <li>➢ Select and use appropriate forms of communication</li> </ul> </li> <li>▪ Exhibit a proficiency in the use of reference materials such as dictionary, thesaurus, telephone directory, almanac, zip code directory, and office handbooks</li> </ul>	<p><b>Integrated in content areas skills</b></p>
<p><b>5. Occupational Safety</b></p> <ul style="list-style-type: none"> <li>▪ Good safety practice</li> </ul>	<p><b>5. Understand occupational safety issues, including avoidance of physical hazards</b></p> <ul style="list-style-type: none"> <li>▪ Model and implement good safety practices including: <ul style="list-style-type: none"> <li>➢ Avoidance and reporting of physical hazards in the work environment</li> <li>➢ Safe operation of equipment</li> <li>➢ Proper handling of hazardous materials</li> </ul> </li> </ul>	<p><b>Integrated in content area skills</b></p>
<p><b>6. Employment Literacy</b></p> <ul style="list-style-type: none"> <li>▪ Expand awareness of career opportunities</li> <li>▪ Set employment goals and objectives</li> <li>▪ Aptitudes, personal characteristics and interests</li> <li>▪ Develop portfolio</li> <li>▪ Develop interviewing techniques</li> </ul>	<p><b>6. Understand career paths and strategies for obtaining employment</b></p> <ul style="list-style-type: none"> <li>▪ Explore career opportunities and develop a career plan</li> <li>▪ Identify steps for setting goals and writing personal goals and objectives</li> <li>▪ Examine aptitudes related to career options; relate personal characteristics</li> </ul>	<p><b>Integrated in content area skills</b></p>

	<p>and interest to educational and occupational opportunities</p> <ul style="list-style-type: none"> <li>▪ Develop a portfolio to include the following: <ul style="list-style-type: none"> <li>➢ Letter of Introduction</li> <li>➢ Cover letter</li> <li>➢ Resume</li> <li>➢ Thank you letter</li> <li>➢ Job application</li> <li>➢ Licenses, Certificates and Awards</li> <li>➢ Transcripts</li> <li>➢ Letters on Recommendation</li> <li>➢ Work Samples</li> </ul> </li> </ul>	
<p><b>7. Technology Literacy</b></p> <ul style="list-style-type: none"> <li>▪ Apply Industry specific technology</li> <li>▪ Use Industry specific software</li> <li>▪ Demonstrate Keyboarding</li> <li>▪ Accessing information</li> <li>▪ Lifelong enhancement of technology skills</li> </ul>	<p><b>7. Understand and adapt to changing technology.</b></p> <ul style="list-style-type: none"> <li>▪ Identify and demonstrate use of appropriate technology</li> <li>▪ Identify and use industry specific software</li> <li>▪ Demonstrate proficiency in alphanumeric keyboarding</li> <li>▪ Input and retrieve information</li> <li>▪ Understand the importance of lifelong learning in adapting to changing technology</li> </ul>	<p><b>Integrated in content area skills</b></p>

**XI. EXPECTED STUDENT PROFICIENCIES:**

1. The successful graduate will prepared a job application and resume and demonstrated the correct job interview procedure.
2. The successful graduate will have identified, studied and became familiar with the career opportunities available in the local business community.
3. The successful graduate will have demonstrated entry-level job skill proficiencies in auto body repair listed in skills area #10.

**XII. ARTICULATION:** An articulation agreement with Monterey Peninsula College is being developed.

**XIII. CREDITS:**

Variable – 10 high school credits per 180 hour semester

**XIV. INSTRUCTIONAL STRATEGIES:**

Instructional methodologies; projects, filmstrips, work sheets, lectures, demonstration, guest speakers and one on one student/instructor interactions.

**XV. INSTRUCTIONAL RESOURCES:**

Film strips, videos, print-outs and human and material resources.  
Advisory Committee  
Local Businesses

**XVI. CERTIFICATES:**

Certificate of completion in Auto Body Repair will be given to those students who have completed the class and demonstrated the ability to do the work.