

AUTOMOTIVE COLLISION REPAIR

Sophomore Level Course Syllabus

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COURSE DESCRIPTION

This is an introductory course designed to expose students to the Collision Repair Industry. Utilizing the I-CAR- Live Curriculum some of the required state paint and refinish competencies will be covered for certification. Other topics covered are safety, auto construction, tools and equipment, basic understanding of structural alignment, metal working and refinish operation basics, damage assessment cost, automotive detailing, metal working and math skills, employment skills, and collision career opportunities. This course is one semester, meeting every other day for a total of 45 days. The classes are 2.5 hours in length for a total number of contact hours of 112.5.

COURSE SEQUENCE

Introduction to Automotive Collision Repair	Sophomore	9 weeks-AM (Semester 2)	1 unit
Automotive Collision Repair I	Junior	AM Semester 1	2 units
Automotive Collision Repair II	Senior	PM Semester 1	2 units
Automotive Collision Repair III	Senior	PM Semester 2	2 units

INSTRUCTIONAL PHILOSOPHY

I believe in exposing students to a work based environment where they learn to cooperate, motivate, and grow through hands-on experiences along with team work in the shop. My experience in the Collision Repair Industry has afforded me the opportunity to become highly skilled in this field and very knowledgeable on how to become successful in the field.

The Automotive Collision Repair field changes on a daily basis but the fundamental concepts maintain consistency. Students will be exposed to all the facets of this industry. A course syllabus will be provided for each student as a road map of responsibilities and studies. They will be expected to meet the entire course goals as listed below and demonstrate their understanding of the underlying concepts. The instruction will require some lecture, but emphasis will be placed on application of concepts. Due to the shortness of the course some of the topics will be introduced and surveyed. With the state competencies students will be provided ample opportunity to practice for competency. Work will be based on group assignments, individual completion of activities, projects, tests, knowledge of content and demonstration of important skills.

COURSE GOALS

1. Create good safety work habits and housekeeping/organization skills
2. Develop a basic knowledge of tools and equipment.
3. Develop a basic knowledge of automotive construction.
4. Develop a basic understanding of collision assessment (damage cost).
5. Develop a basic understanding of structural analysis and alignment.
6. Develop a basic understanding of metal working, and panel replacement and alignment.
7. Develop masking skills for refinishing.

8. Develop automotive cleaning and detailing skills.
9. Reinforce literacy and math skills.
10. Improve and reinforce good interpersonal job seeking and job keeping skills.
11. Develop knowledge of entrepreneurship and career opportunities in the collision industry.

COURSE REQUIREMENTS

1. \$10.00 School fee that must be paid before entering the shop.
2. Students must have leather shoes for safety.
3. Safety glasses and a binder for journals and handouts will be provided.

EVALUATION

Student evaluation is accomplished with a combination of several categories:

- Major competencies – 60% weight
These are hands-on skills performed in the lab, observed and evaluated by a rubric.
- Minor Competencies – 40% weight
This includes mostly competency knowledge in the form of worksheets, quizzes, summaries and tests, as well as, a notebook containing all the handouts will be checked each 9 week period. The journal is kept each day and dated.

ASSESSMENT PLAN

Student assessment will be based on group work, individual completion of daily activities, projects, tests of students' knowledge of content and the demonstration of important skills. Any assignment or test that is missed due to class absence will be made up on the next scheduled class meeting. In the case of an excused absence and the assignment was not made prior to the student's absence, the student will be allowed to make up the assignment at a later date as determined by the instructor. This will usually be done on the next scheduled class date.

INSTRUCTIONAL PLAN

The state competencies are categorized into high priority-Individual and High Priority-Group. The group competencies are experienced as class exercises. The individual competencies are practiced by each student in the shop lab. There will be presentations by the instructor, training videos, training DVDs, reading assignments with worksheets, writing assignments, job sheets for lab work, speakers from industry, and at least one field trip to industry. Students will work as teams on some projects and as individuals on others.

COMPETENCIES TO BE MASTERED		112.5 Hours
Competency	Priority	Hours
Class orientation: handbook, rules, procedures and expectations	HP-1	10.0
Identify safety and personal health hazards according to OSHA and "Right to Know."	HP-1	7.5
Select and use the proper personal safety equipment for surface preparation, spray equipment, paint mixing, paint defects and detailing.	HP-1	5.0
Identify career opportunities and job specialties in the collision repair industry (research paper)	HP-1	2.5
Identify basic tools and equipment.	HP-1	5.0
Demonstrate organization and house-keeping skills.	HP-1	5.0
Demonstrate knowledge of entrepreneurship.	HP-1	2.5
Identify and demonstrate interpersonal character skills for successful employment.	HP-1	5.0
Identify automotive body and mechanical components.	HP-1	12.5
Demonstrate basic math skills related to Auto Collision.	HP-1	5.0
Demonstrate literacy skills by writing article summaries and recordings in a daily journal.	HP-1	9.0
Soap and water wash an entire vehicle-use appropriate cleaner to remove contaminants.	HP-1	5.0
Mask and protect area of a vehicle not to be refinished	HP-1	7.5
Clean vehicle openings (door jams, edges...).	HP-1	5.0
Clean interior, exterior and glass.	HP-1	7.5
Demonstrate basic knowledge of metal working techniques	HP-1	5.0
Demonstrate basic knowledge of spray gun set-ups and spraying techniques.	HP-1	5.0
Demonstrate basic knowledge of structural damage assessment.	HP-1	5.0
Demonstrate a basic understanding of damage appraisal	HP-1	3.5
GRAND TOTAL		112.5

Resources:

- I-Car Live curriculum
- Field trips to industry
- Guest speakers from industry
- Textbooks/ Workbooks
- TV/DVD (Training videos)
- Computer projector
- Mitchell Crash Manuals
- Motor Crash Manuals
- Car-O-Liner Frame and Structural data