ACR

Auto Collision and Refinishing
Syllabus

Instructor Contact Information
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1st Year Curriculum Summary:

Students entering the Muskegon Area Career Tech Center’s Auto Collision Repair Program will be introduced to the basics of repairing and refinishing collision damaged vehicles. They will be introduced to metal finishing, plastic repair and the use of plastic and fiberglass filler application. MIG, Plastic, and Aluminum welding will be taught, as well as learning how to operate a Plasma Torch as well.

Students will learn how to properly and carefully disassemble the vehicle for repair, and to catalog and store the parts for easy reassembly. The 1st year students will learn how to mask off the damaged vehicles to minimize overspray, and the proper preparation and application of primers and paints; including both solvent based and water borne finishes.

ASE Certification Testing will be introduced, and daily preparation to this end will be pursued. The goal is to have all students become certified at the end of their 1st year of study. This will enable them to take part in the 2nd year curriculum.

2nd Year Curriculum Summary:
The 2nd year curriculum is designed to give students the opportunity to work in an actual automotive repair facility. This will be accomplished through the Work Based Learning program facilitated by the MACTC. A great help in this area, is our very supportive Advisory Committee. With their influence and connections in the community, as well as their personal businesses, we have had great success in placing students.

The Advisory Committee is comprised of automotive service professionals from the greater Muskegon area, as well as the outlying smaller communities. We have shop owners, Operation Managers from large dealerships, former students, parents of students, ETC… All in all, it opens up great opportunities to our students, that would otherwise not be possible.

Entrance to the 2nd year Work Based Learning program is not automatic. Students must excel in their first year, be a completer in the program, and pass the ASE Certification test in Collision Repair and Refinishing. They must have a grade of 70% or better their entire first year, and great attendance is of course mandatory. The last step for the 2nd year program is to be interviewed and subsequently hired. The students may find employment on their own as well, but it must meet the rigid requirements of the MACTC.
**Class Goals**
Students will learn how to:

a) Safely operate both basic and advanced collision and refinishing equipment.
b) Properly prepare vehicles and parts for the refinishing process.
c) Refinish vehicles and parts with single, two, and three stage products and procedures.
d) Read and develop damage repair estimates.
e) Repair collision damaged vehicles.
f) Prepare for entry-level employment and continuing education in the collision and refinishing Industry.

**Class Hours**
Monday-Friday
AM Session: 8:05-10:35
PM Session: 11:45 - 2:15

**Class Description**
Auto Collision Repair is a Career and Technical Education (CTE) program. The CIP code for our program is 47.0603.

**Course Format**
The class is approximately 60% lab (shop work) and 40% classroom activities.

**Special Features**

a) Work Based Learning and Internship Opportunities.
b) Work on live customer vehicles.
c) Opportunities to compete in statewide collision and refinish competitions such as MITES. This is a Project Based Competition. This will be covered in detail in class. The target project time is 25-30 hours.
f) Academic and elective credit towards high school graduation requirements.

**Employability Skills:**
A primary goal of this class is to teach you how to be successful both in the workplace and in college.

Such success is not just the result of what technical and academic skills and knowledge you possess, but it is also a result of how well you can demonstrate professional behaviors and attitudes like teamwork, self-motivation, care and concern, punctuality/attendance, cooperation, respectfulness, dependability, self-discipline, flexibility, time management, communication, and problem solving.

The collision and refinishing industry highly values employees who excel in the above employability and life skills.

**Class and Lab Clean Up**
An important daily task we will complete, and an important employability skill, is to make sure the
classroom and lab are as clean or cleaner than you found it. This means all students will take part in the daily clean up of the entire lab and classroom-even if the area you worked in is finished. This is a group effort, and students shall not return to the classroom or to the locker area until the Clean Up Monitor gives the okay. Student accountability applies.

This class is designed to help you develop and excel in these areas, which will serve you well in all facets of your life.

**Class Field Trips**

**Fall Field Trip**
**Local Car Dealership**
The purpose of this field trip is to expose students to the environment of, and to gain an appreciation of a working dealership auto collision repair facility. This will allow you to see a professional facility in action, and to gain the experience of a first class repair facility. The students will see not only the facility, but the employees, tools, and the logistics of a local dealership. The tour will also give the students the opportunity to see some of the related opportunities within the auto collision field such as the parts department, service writer, sales, and managers, to name a few.

**Winter Field Trip**
**AutoRama- Student Career Day**
The purpose of this field trip is to expose students to a wide range of opportunities in the industry through speakers, corporate support, and event participation. Student Career Day was started to support the automotive educational programs at schools, and the students that attend them.

This educational opportunity features guest speakers who share their experience and knowledge, and convey their continuing passion of the industry.

**Extra Credit**
Students have an extra credit opportunity in ACR, and can earn up to 100 points per semester. This will allow them to not only receive extra credit to improve their grade, but also to make up any points they may have missed due to absences.

To receive extra credit, simply ask Mr. Stone for the XC instruction sheet and follow the directions as outlined on the page.

**ACR Classroom Policies**

**Attendance**
The following is a breakdown of the ACR attendance policy. These numbers are for individual semesters. Three (3) tardies equal One Absence. School related absences Do Not count towards the total number of absences.

Six (6) Absences
Nine (9) Absences. Student no longer in good standing for recommendation of credit.

1. Students will be present every day that class is in session.
2. All Students will participate in the daily activities.
3. Students will be on time and on task.
4. Instructors are the only individuals allowed to drive vehicles in and out of the shop.
Students may drive their own vehicles from the student lot to the service lot.
5. No profanity or foul language is to be used either in the classroom or the lab.
6. Only the tool attendant is allowed in the tool room.
7. Do NOT snap or throw rags
8. Do NOT play with accessories in customers cars.
9 Students will be responsible for their own uniforms and glasses. Damage or loss will result in financial restitution.
10 Upon completion of the assigned job, report to instructor. ALL work must be inspected by Mr. Stone or Mr. K.
11. Students must get permission from Instructor to leave the class or the lab.
12. Keep overhead door closed until car is ready to be driven into the lab (winter rule).
13. Clothing with inappropriate language and/or pictures not permitted.
14. You must be seated in the classroom at the start and end of the day.
15. Students must sign for checked out items and will be responsible for loss or damage.
16. Successful completion of the first year is required to return for a second year. Students will need to pass both a written test in the classroom, and a proficiency test in the lab.
17. Use proper procedures when disposing of waste materials. Gloves, proper container, etc.
18. Students must have a B average or better to bring their own car in to the shop. Additionally, students must be current with their ICAR Modules, and be current with all NEWsela and GOW assignments too. These assignments are available online; therefore, if you do fall behind, work must be made up on student’s own time, outside of class. Lastly, students must also have no outstanding money owed for personal project materials.
19. Lockers must be closed and locked at the end of the day. Lockers must also be closed at all times during class, with no clothing, papers, or ANYTHING hanging on the exterior.
20. Parts must be stored properly.
21. The shop will be cleaned after each shop session. Clean Up Monitor will declare shop clean.
22. Cell phones or other personal electronic devices are not permitted in the auto shop or classroom during class time unless specifically directed by Instructor.
23. The shop/lab door on the North wall will remain locked at all times.
24. Visitors must check in at the front office and/or Student Services before coming to ACR.
25. Follow all expectations and rules in student handbook.
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<th><strong>Textbook</strong></th>
<th><strong>Purpose</strong></th>
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| Collision Repair and Refinishing – Thomas. (2014) | Focus will be on level one Refinishing Technician certification coursework, including:  
WKR 01  Hazardous Materials and Personal Safety  
TRM 03  Exterior trim, pinstripes and decals  
REF 02  Surface Preparation and Masking  
REF 01  Refinishing Equipment and VOC's  
HAP 01  Hazardous Air Pollutants  
HWD 01  Liquid and Solid Waste  
CPS 01  Corrosion Protection  
Ref 04  Detailing  
NEW 13  New Vehicechnolo | Provides training for the Work Keys testing that business and industry are using when hiring and or promoting. A self-paced way to learn applied math, reading for information, locating information and employability skills. |
| I-Car | Provides training for the Work Keys testing that business and industry are using when hiring and or promoting. A self-paced way to learn applied math, reading for information, locating information and employability skills. |
| WIN website | Provides training for the Work Keys testing that business and industry are using when hiring and or promoting. A self-paced way to learn applied math, reading for information, locating information and employability skills. |
| G-W Pierce Video Series | Auto collision and refinish related video series  
Foreign and Domestic Estimation Manuals |
| Mitchell Estimating Manuals | Foreign and Domestic Estimation Manuals |
| Mitchell Estimating Software | Live production version of computer estimating software as used in industry. |
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<tr>
<th>Uniform Requirements</th>
<th>Purpose</th>
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<td>Safety glasses must be worn 100% of the time when in the shop.</td>
<td>Flying sharp or hot metal fragments can be projected around the shop from the collision repair process.</td>
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<tr>
<td>No open-faced shoes like sandals. Closed toed leather shoes are required to work in the shop.</td>
<td>So sharp, hot, or heavy objects do not injure your feet.</td>
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<tr>
<td>Clothes can get dirty when working in the lab. Shop uniforms are required for work in the lab. No alterations will be made to ACR uniforms. If damaged, let us know.</td>
<td>To keep school clothes clean and to look more like a professional team of co-workers.</td>
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**Special Needs**

Please notify us if you have any special needs. Let us know what accommodations you require of us to make this class enjoyable and you a success. Thanks.

Every effort will be made to provide reasonable accommodations, including computer use, notes, tutoring, extended time, and oral testing.

We need to know what your needs are in order to support you.

You may also contact our teacher consultants in our Student Services Office for help.

Please remember, we need to know what your needs are in order to support you. Please ask for help if you need it!

Thanks!

**Grade Categories**

Your initial grade is based on an average of assignments and assessments from three categories: Employability Skills, Hands on lab and Written/Academic work.

- 34% Employability Skills
- 33% Lab Work (Hand on/ project based)
- 33% Written/Academic (Tests, quizzes, classwork, homework, etc.)

Additions and deductions are factored in to your initial grade average in accordance with the CTC Attendance

Assignments:

- Assignments vary in type and length.
- Each assignment is linked to at least one of the three grade categories.

Assessments:

- Quizzes, tests, exams and other types of assessments will be announced in advance. Some examples include:
- Employability skills assessments, daily lab performance assessment, safety and skills testing.
Hygiene Requirements

Hair: Preferable short. If you have long hair, you must wear a hair net, or tie it back. To prevent it from becoming tangled in the moving parts used in class.

Jewelry: No loose or hanging jewelry allowed. Jewelry in a shop area is a safety hazard. It is too easy for it caught in a tool.

Excellent Attendance

Is required for success at work.
Is required for success at college.
Is required for success in this class.
Is expected.
I will follow the attendance policy in the handbook.

Grading and Grade Report

Scale:
100 - 90 = A
89 - 80 = B
79 -70 = C
69 - 60 = D
To monitor progress, students and parents may use Power School Internet Viewer on the CTC Website.