Course Number: Instructor: Jeff Owen
OCAS Code: Phone Number: 580.327.0344
Course Length: 60 hours
Email: jowen@nwtech.edu
Career Cluster: Transportation, Distribution, & Logistics
Campus: Alva
Career Pathway: Automotive Collision Repair
Program: Collision Technology
Career Major: Combination Collision Repair Technician, Refinishing Technician
Pre-requisite: None
Course Description: In the detailing course the student will learn to complete the refinishing repair. The student will learn to sand and polish the refinish material after curing and prepare for delivery by washing and cleaning interior and exterior of the vehicle.

Instructional Philosophy: The instructor will provide not only technical training in the Auto Collision Technology area but also soft-skills training in an effort to provide training and services needed for students to succeed in the workplace.

Course Goals: Upon successful completion of this course, the student will be able to:

- Review damage report and analyze damage to determine appropriate methods for overall repair; develop repair plan.
- Inspect, remove, store, and replace exterior trim and moldings.
- Inspect, remove, store, and replace interior trim and components.
- Inspect, remove, store, and replace non-structural body panels and components that may interfere with or be damaged during repair.
- Inspect, remove, store, and replace all vehicle mechanical and electrical components that may interfere with or be damaged during repair.
- Protect panels, glass, and parts adjacent to repair area.
- Soap and water wash entire vehicle; use appropriate cleaner to remove contaminants from those areas to be repaired.
- Remove corrosion protection, undercoatings, sealers, and other protective coatings necessary to perform repairs.
- Inspect, remove, and replace repairable plastics and other components that are recommended for off-vehicle repair.
- Apply safety procedures associated with vehicle components and systems such as ABS, air bags, refrigerants, batteries, tires, oil, anti-freeze, engine coolants, etc.
- Apply environmental practices associated with vehicle components and systems such as substrates, fluids, refrigerants, batteries, etc.
- Inspect, remove, store, and replace exterior trim and molding.
- Soap and water wash entire vehicle; use appropriate cleaner to remove contaminants.
- Inspect and identify substrate, type of finish and surface condition; develop a plan for refinishing using a total product system.
- Remove paint finish.
- Dry or wet sand areas to be refinished.
• Featheredge broken areas to be refinished.
• Apply suitable metal treatment or primer.
• Mask trim and protect other areas that will not be refinished.
• Mix primer, primer-surfacer or primer-sealer.
• Apply primer onto surface of repaired area.
• Apply two-component finishing filler to minor surface imperfections.
• Dry or wet sand area to which primer-surfacer has been applied.
• Dry sand area to which two-component finishing filler has been applied.
• Remove dust from area to be refinished, including cracks or moldings of adjacent areas.
• Clean area to be refinished using a final cleaning solution.
• Remove, with a tack rag, any dust or lint particles from the area to be refinished.
• Apply suitable sealer to the area being refinished when sealing is needed or desirable.
• Scuff sand to remove nibs or imperfections from a sealer.
• Apply stone chip resistant coating.
• Restore corrosion-resistant coatings, caulking, and seam sealers to repaired areas.
• Prepare adjacent panels for blending.
• Apply decals, transfers, tapes, woodgrains, pinstripes (painted and taped), etc.
• Buff and polish finish to remove defects as required.
• Clean interior, exterior, and glass.
• Clean body openings (door jambs & edges, etc.).
• Remove overspray.
• Determine type and color of paint already on vehicle by manufacturer's vehicle information label.
• Shake, stir, reduce, catalyze/activate, and strain paint according to manufacturer's procedures.
• Apply finish using appropriate spray techniques (gun arc, gun angle, gun distance, gun speed, and spray pattern overlap) for the finish being applied.
• Apply selected product on test and let-down panel in accordance with manufacturer's recommendations; check for color match.
• Apply single stage topcoat for refinishing.
• Apply basecoat/clearcoat for panel blending or partial refinishing.
• Apply basecoat/clearcoat for overall refinishing.
• Denib, buff, and polish finishes where necessary.
• Identify the types of rigid, semi-rigid or flexible plastic parts to be refinished; determine the materials, preparation, and refinishing procedures.
• Refinish rigid, semi-rigid and flexible plastic parts.
• Clean, condition and refinish vinyl (e.g. upholstery, dashes, and tops).
• Apply multi-stage (tricoat) coats for panel blending or overall refinishing.
• Identify and mix paint using a formula.
• Identify poor hiding colors; determine necessary action.
• Tint color using formula to achieve a blendable match.
• Identify alternative color formula to achieve a blendable match.

Major Course Projects:

Students are allowed to work on their own projects as well as live-work projects as approved by instructor.

Students will compile a portfolio which includes classroom theory and activities as well as a summary of hands-on work in the shop. Students will include photographs of projects and live work projects with descriptions for each photo.

Project Outline:

Students may begin working on projects as their skill level allows. All projects must be completed by the first of May. These projects will reinforce classroom theory instruction and will require the student to consult industry service information during the course of task performance.

Instructional Delivery Plan:

The instruction for this course will utilize various methods in an effort to promote and accommodate different learning styles including classroom lecture, classroom demonstrations, shop demonstrations, hands-on learning activities, classroom discussion, interactive media, textbook, computer based learning activities, research projects, guest speakers, and student presentations. Students will be required to work independently as well as in teams. Assignments will require students to use academic skills in math, science, and language arts.

Assessment Plan:

Pass Safety Test with 100% accuracy.

Assessment Plan:

50% Performance of technical skills
45% Tests and written assignments
5% Academic Career Center (ACC)

Grading Scale:
A  90-100 Exceeds expectations
B  80-89 Meets industry standards and expectations
C  70-79 Passing grade, but does not meet some standards
D  60-69 Passing, but only meets the minimum standards
F  Below 60 Failing, does not meet minimum standards

Alliance Credit Offered: OSU-IT

Industry Alignments: ICAR

End of Instruction Industry Assessment:

Students will have to pass Safety Test at 100% accuracy and demonstrate safety practices.

http://www.okcareertech.org/testing/Skills_Standards/TransportationCareer_Cluster.htm

Auto Body: Painting & Refinishing Technician - CTTC
http://www.okcareertech.org/testing/PDF_Docs/FY08pdf/32005_PaintRefinishTech.pdf

ASE: Collision Repair and Refinish Series – Painting and Refinishing

NOCTI: Collision Repair and Refinishing Technology

Resources:

I-CAR Worker Protection Curriculum
SP/2 – http://www.sp2.org

Transportation, Distribution, & Logistics Career Cluster Resources -

Attachments:

Student curriculum is available at www.nwtech.edu/owen/