

Transportation

Automotive Collision 1 - Basic Panel Repair

Prerequisite: None
Grades: 10-11
Credit: 1 unit
Offered: Career Center

You'll develop the ability to work safely and keep a safe work area; operate a fire extinguisher; safely use hand and power tools; set up, light adjust and burn straight cuts in sheet metal.

You'll demonstrate MIG welding skills by setting up a welder and constructing a bead weld-spot weld-plug weld; rough out, shrink and align sheet metal.

You'll learn how to fill panel irregularities, repair rust and prime repaired area and sand to proper contour.

Automotive Collision 2 - Painting & Refinishing Skills

Prerequisite: Basic Panel Repair
Grades: 10-12
Credit: 1 unit
Offered: Career Center

You'll learn to work safely and keep a safe work area.

You'll also learn to operate a fire extinguisher and protect yourself from vapors and solvents by using proper safety equipment.

You'll machine and hand-sand panels to prepare for refinishing, mask unpainted areas and trim, apply undercoats (lacquer and urethane), color coats and clear coats: single-stage, 2-stage, 3-stage.

You'll also color, sand and buff new paint and complete for final finish inspection.

Automotive Collision 3 - Panel Replacement & Alignment

Prerequisite: Painting & Refinishing Skills
Grades: 11-12
Credit: 1 unit
Offered: Career Center

You'll learn to work safely and keep a safe work area as you learn to operate a fire extinguisher and demonstrate safe use of frame equipment.

You'll remove, replace and align all cosmetic panels, demonstrate structural alignment along with suspension components, arrange structural alignment with Chief E-Z Liner Frame Equipment, and demonstrate all stationary glass, marble glass replacement and alignment.

Automotive Collision 4 - Center Operations

Prerequisite: Panel Replacement & Alignment
Grades: 11-12
Credit: 1 unit
Offered: Career Center

You'll develop the ability to compute parts and labor costs for damaged vehicles.

You'll determine material cost, complete estimate forms and identify all shop personnel and their duties, salaries and benefits.

You'll study other careers such as insurance adjuster, instructor, equipment salesperson and dealership parts counter-person.

You'll learn basic shop layout and equipment needed in a collision center and maintenance on this equipment.

Automotive Science - Introduction to Transportation, Distribution & Logistics

Prerequisite: None
Grades: 9-12
Credit: 1 unit
Offered: Indian Land

You'll study basic automotive servicing, maintenance and repair.

You'll learn basics of drive train systems; repair of ignition, brake, collision damage; and removal, testing, repair and replacement of defective or damaged parts.

You'll get a thorough understanding of automotive industry employment opportunities as you prepare for advanced training in automotive technology or auto collision repair.

Automotive Technology 1

Prerequisite: Automotive Science where offered
Grades: 10-12
Credit: 1 unit
Offered: Andrew Jackson, Career Center
(Grades 9-11), Indian Land

You'll focus on entry-level repair and brake systems diagnosis and basic engine repair.

You'll learn proper safety protocol and how to work professionally with others.

You'll also learn basics of hydraulic systems and brake repair as well as common engine repair like gasket replacement and diagnosis of fluid leaks.

Automotive Technology 2

Prerequisite: Auto Technology 1
Grades: 9-11
Credit: 1 unit
Offered: Andrew Jackson, Career Center, Indian Land

You'll learn to diagnose, repair and adjust steering, suspension concerns and wheel alignment angles.

You'll learn about manual drive components, how clutches work and how power is transferred from the engine to the wheels.

Automotive Technology 3

Prerequisite: Auto Technology 2
Grades: 10-12
Credit: 1 unit
Offered: Andrew Jackson, Career Center
(Grades 11-12), Indian Land

You'll learn how to diagnose electrical concerns using digital multimeters and wiring diagrams and how to make proper wiring repairs using connectors and soldering techniques.

You'll also learn basics of heating and air conditioning like how climate control systems work to heat and cool the vehicle.

Automotive Technology 4

Prerequisite: Auto Technology 3
Grades: 11-12
Credit: 1 unit
Offered: Andrew Jackson, Career Center
(Grades 11-12), Indian Land

You'll use computer scanners to monitor and diagnose fuel injection systems. You'll retrieve and record diagnostic trouble codes.

You'll also learn about automatic transmission operation and how to perform routine maintenance on transmissions.

Transportation Work-based Credit

(see Co-op for details)
Prerequisite: Senior enrolled in final level of an occupational program
Grade: 12
Credit: 1 unit
Offered: Andrew Jackson, Career Center, Indian Land

You'll put your Transportation courses in action as you get on-the-job training.

See your counselor and the Page 15 sidebar for details.