

# AUTO BODY REPAIR

## Programs

- Advanced Auto Body Repair Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/auto-body-repair/advanced-auto-body-repair/>)
- Auto Body Repair Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/auto-body-repair/auto-body-repair-certificate/>)
- Estimating and Appraiser Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/auto-body-repair/estimating-and-appraiser-certificate/>)

## Courses

### ABR 102 Mig Welding (2-5-3)

*Offered Spring Semester*

Prerequisite: ABR 104

This course is an introduction to the welding of high strength steels used in modern unibody vehicles.

### ABR 104 Auto Body Fundamentals (2-5-3)

*Offered Fall Semester*

This course is a basic study of fundamental issues important for an entry-level auto body technician. Topics include an introduction to safety, tools and equipment, as well as career exploration opportunities.

### ABR 105 Structural Measuring and Analysis (2-5-3)

*Offered Fall Semester*

Prerequisite: ABR 104

This course is an introduction to modern vehicle designs and their engineered safety features. Emphasis is placed on vehicle damage analysis and three-dimensional measuring.

### ABR 106 Non-Structural Plastic and Metal Repairs (2-5-3)

*Offered Fall Semester*

Prerequisite: ABR 104

This course is an exploration of plastic repair procedures and metal straightening techniques.

### ABR 107 Refinishing Fundamentals (2-5-3)

*Offered Fall Semester*

Prerequisite: ABR 104

This course is an exploration of refinishing preparation techniques in the automotive industry. Emphasis is placed on the application of undercoats and detailing processes.

### ABR 109 Accessories (2-5-3)

*Offered Summer Semester*

This course is an introduction to automotive air conditioning, power windows, power seats and other accessories in late model vehicles.

### ABR 114 Estimating Fundamentals (2-5-3)

*Offered Summer Semester*

Prerequisites: ABR 104

This course is a study of basic estimating principles to include vehicle identification, electronic estimating systems, damage analysis and processing of information relating to insurance claims.

### ABR 115 Structural Repair Planning and Correction (2-5-3)

*Offered Spring Semester*

Prerequisite: ABR 105

This course is the study of repair planning and methods for making corrective structural pulls to late-model, collision-damaged vehicles. Emphasis is placed on the straightening of unibody, space-frame and full-frame vehicles.

### ABR 116 Non-Structural Panel Replacement and Trim (2-5-3)

*Offered Spring Semester*

Prerequisite: ABR 106

This course is a study of the assembly and disassembly of automotive replacement panels to include welded, bonded and bolted panels.

### ABR 117 Refinishing Application Processes (2-5-3)

*Offered Spring Semester*

Prerequisite: ABR 107

This course is a study of mixing and applying automotive topcoats, including spray gun set-up, mixing equipment and spraying equipment for solvent and waterborne refinishes.

### ABR 118 Refinishing II (2-5-3)

*Offered Summer Semester*

Prerequisite: ABR 127

This course covers overall refinishing with the newest type paints.

### ABR 119 Estimating Repairs (1-3-2)

*Offered Fall Semester*

This course covers writing estimates on damaged vehicles using collision repair guides.

### ABR 124 Advanced Estimating Procedures (2-5-3)

*Offered Fall Semester*

Prerequisites: ABR 114

This course is an in-depth review of computerized estimating systems, digital photography and vehicle scheduling processes as they relate to automotive estimating.

### ABR 126 Non-Structural Advanced Materials (2-5-3)

*Offered Fall Semester*

Prerequisites: ABR 102, ABR 116

This course is an exploration of non-traditional vehicle materials and the repair processes that accompany them.

### ABR 127 Refinishing Color Tinting and Blending (2-5-3)

*Offered Summer Semester*

Prerequisite: ABR 117

This course is a study of finish matching techniques to include color theory, tinting and blending as they apply to today's automotive finishes.

### ABR 132 Shop Management Concepts (2-5-3)

*Offered Spring Semester*

Co-requisite: ABR 124

This course covers basic leadership skills and automotive shop management procedures.

### ABR 135 Structural Sectioning and Frame Replacement (2-5-3)

*Offered Summer Semester*

Prerequisites: ABR 102, ABR 115

This course covers the various sectioning procedures used in the repair of today's vehicles as they relate to structural components of the vehicle.

### ABR 136 Metal Shaping and Fabrication (2-5-3)

*Offered Spring Semester*

Prerequisite: ABR 126

This course covers metal shaping and fabrication of vehicle parts using metal forming equipment.

**ABR 137 Advanced Refinishing Processes (2-5-3)**

*Offered Spring Semester*

Prerequisite: ABR 127

This course covers the use of specialty finishes and custom paint applications.

**ABR 142 Mechanical Systems (2-5-3)**

*Offered Fall Semester*

Prerequisite: ABR 115

This course is a study of braking, steering and suspension systems as they relate to returning a vehicle to pre-accident condition.

**ABR 143 Auto Body Electrical Systems (2-5-3)**

*Offered Fall Semester*

Prerequisite: ABR 104

This course is an exploration of basic circuitry and electrical problems associated with collision-damaged vehicles.

**ABR 144 Heating, Cooling and Air Conditioning Systems (2-5-3)**

*Offered Spring Semester*

Prerequisites: ABR 142, ABR 143

This course is an introduction to engine heating and cooling systems used in modern vehicles. Other topics include the automotive air conditioning system.