

New Horizons Regional Education Center  
Auto Body Technology I & II Course Syllabus  
State Course Numbers : 8676-8677  
Mr. Edwin Hernandez  
[ehernand@nhgs.tec.va.us](mailto:ehernand@nhgs.tec.va.us)  
(757)766-1100 Ext.3347

**Office Hours**

7:00 AM- 3:00 PM

**Course Description**

Students in this program are prepared for careers in their fields through the use of the latest technologies and state-of-the-art equipment. Throughout the program, students gain daily practical experience by working on vehicles. Each student will become familiar with the latest finishes from single-stage to multi-stage finishes. Selected students may be eligible for work experiences at local repair facilities. Successful completion of the two-year Auto Body program can reduce the two years of experience required for Automotive Service Excellence (ASE) certification by one year.

**Course Fees**

NOCTI Test : (Test Number 2006) Fee: \$18.50

Skills U.S.A : Fee: \$16.00

Workbook :Fee: \$14.00

**Materials For Class**

Dickies dark blue button down shirt.

Dickies dark blue pants.

Black belt

2"-3-ring binder

Oil resistant shoes (steel toe recommended)

Blowgun

Plastic spreader

Respirator

**Evaluation of Student Performance/Grading**

Employability Skills-30%

Related Instruction (Test, quizzes, notebook, class work)-30%

Competencies (hands-on, and workplace skill demonstration)-40%

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**List of Skills Topics:**

[First Nine Weeks](#)

[First and Second year students will learn:](#)

**Safety**

Identify and demonstrate precautions with hazardous operations and materials according to federal, state, and local regulations.

Identify safety and personal health hazards according to OSHA guidelines and the "right-to-know law."

Inspect spray environment.

Select and use the NIOSH-approved personal sanding respirator

Select and use personal safety equipment

Select and use the NIOSH-approved (Fresh Air Make-up System) personal painting/refinishing respirator system

**Preparing for the Automotive Body Repair Career**

Research opportunities in the automotive body repair field

Identify the basic construction of the auto body.

Demonstrate comprehension of additional ASE areas

Identify standards for structural analysis and damage repair.

Identify standards for non-structural analysis and damage repair (body components).

Identify the purposes and goals of the student organization.

Participate in course activities sponsored by the student organization (e.g., meetings, programs, and other projects that require specialized skills and concepts)

[First year students will learn:](#)

[Using tools and equipment:](#)

Demonstrate safe use and maintenance of general hand tools.

Demonstrate safe use and maintenance of specialized auto body repair tools.

Identify emergency fire procedures, including the proper use of fire protection equipment

Use chemicals safely

[Preparing the surface](#)

Wash entire vehicle with soap and water; use appropriate cleaner to remove contaminants

Inspect, remove, store, and replace exterior trim and molding

Inspect and identify substrate, type of finish, and surface condition.

[Second year students will learn](#)

[Operating Spray Gun and Related Equipment](#)

Inspect, clean, and determine condition of spray guns and related equipment (air hoses, regulators, air lines, air source, and spray environment).

Check and adjust spray gun operation for HVLP (high volume, low pressure) or LVLP (low volume, low pressure) guns.

[Second Nine Weeks](#)

[First year students will learn](#)

Remove paint finish.

Dry or wet sand areas to be refinished.

Featheredge broken areas to be refinished

Apply 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.

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Second Nine Weeks (continued)

First year students will learn

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  
Apply sealer to the area being refinished.  
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.

Second year students will learn

Mixing Matching and Applying Paint

Determine type and color of paint already on vehicle by manufacturer's vehicle information label  
Shake, stir, reduce, catalyze/activate, and strain paint.  
Use spray techniques to apply the finish  
Apply selected product on test and let-down panel  
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  
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; correct the condition.  
Tint color using formula to achieve a blendable match.  
Research and identify alternative color formula to achieve a blendable match.

Third Nine Weeks

First year students will learn

Operating Spray Gun and Related Equipment

Inspect, clean, and determine condition of spray guns and related equipment (air hoses, regulators, air lines, air source, and spray environment).  
Check and adjust spray gun operation for HVLP (high volume, low pressure) or LVLP (low volume, low pressure) guns.  
Remove paint finish.  
Dry or wet sand areas to be refinished.  
Featheredge broken areas to be refinished  
Apply 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.

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Third Nine Weeks

Second year students will learn

**Using Metal Finishing and Body Filling**

Remove paint from the damaged area of a body panel.  
Locate and reduce surface irregularities on a damaged body panel  
Demonstrate hammer and dolly techniques  
Mix body filler.  
Apply body filler; shape during curing  
Rough sand-cured body filler to contour; finish sanding..

Fourth Nine Weeks

First year students will learn

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  
Apply sealer to the area being refinished.  
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.

Second year students will learn

**Using Metal Finishing and Body Filling**

Remove paint from the damaged area of a body panel.  
Locate and reduce surface irregularities on a damaged body panel  
Demonstrate hammer and dolly techniques  
Mix body filler.  
Apply body filler; shape during curing  
Rough sand-cured body filler to contour; finish sanding

**Preparing for the Automotive Body Repair Career**

Research opportunities in the automotive body repair field  
Prepare portfolio of current skills.  
Identify the basic construction of the auto body.  
Demonstrate comprehension of additional ASE areas.  
Identify standards for structural analysis and damage repair.  
Identify standards for non-structural analysis and damage repair (body components).  
Identify ASE standards for mechanical and electrical components  
Identify the purposes and goals of the student organization.  
Participate in course activities sponsored by the student organization (e.g., meetings, programs, and other projects that require specialized skills and concepts).

**Examining All Aspects of Industry**

Planning, Management, Finance  
Technical and Production Skills  
Underlying Principles of Technology  
Labor Issues Community Issues, Health, Safety, and Environmental Issues