

Teacher Assessment Blueprint

Collision Repair and Refinishing Technology



Test Code: 5266 / Version: 01

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General Assessment Information

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Test Type: The Collision Repair and Refinishing Technology assessment is included in NOCTI's Teacher assessment battery. Teacher assessments measure an individual's technical knowledge and skills in a proctored proficiency examination format. These assessments are used in a large number of states as part of the teacher licensing and/or certification process, assessing competency in all aspects of a particular industry. NOCTI Teacher tests typically offer both a written and performance component that must be administered at a NOCTI-approved Area Test Center. Teacher assessments can be delivered in an online or paper/pencil format.

Revision Team: The assessment content is based on input from subject matter experts representing the following states: Maine, New York, and Pennsylvania.



47.0603- Autobody/Collision
and Repair
Technology/Technician



Career Cluster 16-
Transportation, Distribution,
and Logistics



49-3021.00- Automotive Body
and Related Repairers

Written Assessment

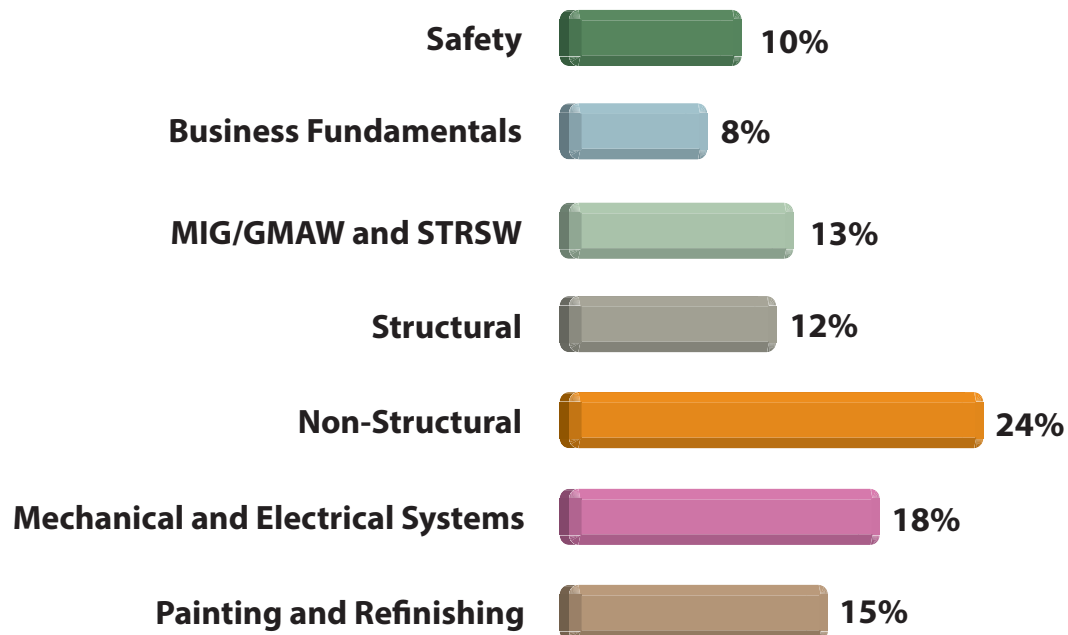
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours

Number of Questions: 183

Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Safety

- Demonstrate knowledge of safety and environmental requirements in the collision repair industry
- Demonstrate appropriate care and maintenance of shop tools and equipment
- Identify proper safety techniques for the use of shop equipment, including PPE

Business Fundamentals

- Apply basic business practices within the collision repair industry, including estimating
- Identify employability skills within the collision repair industry

MIG/GMAW (Metal Inert Gas/Gas Metal Arc Welding) and STRSW (Squeeze-Type Resistance Spot Welding)

- Demonstrate vehicle protection procedures
- Describe various cutting and weld removal processes
- Describe and differentiate various types and uses of welding processes
- Replace and/or repair structural components

Structural

- Select, set-up, and utilize manual measuring systems
- Select, set-up, and utilize computerized measuring systems
- Demonstrate set up and operation of various pulling systems
- Diagnose primary and secondary structural damage
- Demonstrate knowledge of working with high strength steel



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Specific Standards and Competencies (continued)

Non-Structural

- Identify automotive plastics and proper repair procedures
- Diagnose primary and secondary non-structural damage
- Demonstrate knowledge of movable and stationary glass
- Utilize basic corrosion protection procedures
- Use adhesive bonding procedures
- Remove and replace automotive trim
- Remove, install, replace, align, or repair non-structural panels
- Remove, install, and replace ancillary components (e.g., headlamps, under-hood fuse boxes)



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Specific Standards and Competencies (continued)

Mechanical and Electrical Systems

- Identify basic steering and suspension components (e.g., tie rod ends, ball joints, steering racks)
- Identify how collision damage affects basic suspension geometry
- Verify functions of electrical system and basic wiring repair (e.g., soldering, quick connectors)
- Perform basic mechanical and electrical diagnostic operations

Painting and Refinishing

- Identify painting and refinishing safety and environmental requirements
- Identify and demonstrate surface preparation techniques
- Identify and demonstrate paint materials preparation techniques
- Identify causes and remedies for paint defects
- Identify and demonstrate paint materials application techniques



Sample Questions

A dual-action sander is used to

- A. smooth welds
- B. feather or remove paint
- C. form ridges
- D. smooth out plastic body filler

The term "R & I" means

- A. remove and inspect
- B. replace and install
- C. remove and install
- D. repair and install

To flatten MIG/GMAW welding bead,

- A. increase the wire speed
- B. increase the voltage
- C. change the gas setting
- D. change the ground

Unibody vehicles seldom incur _____ damage.

- A. diamond
- B. twist
- C. sag
- D. side sway

Air bag deployment is considered _____ damage.

- A. primary
- B. secondary
- C. inertia
- D. unibody

Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

Administration Time: 3 hours

Number of Jobs: 4

Areas Covered:

33% Welding

Participant will safely adjust the welder, lap weld in a horizontal position, butt weld horizontal with backing, horizontal plug weld, and shut down the welder.

28% Sheet Metal Repair

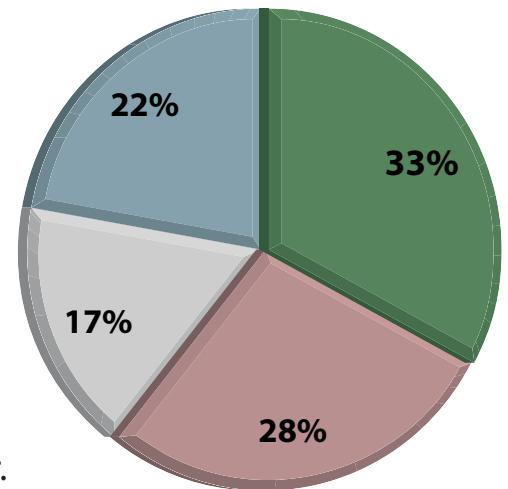
Participant will safely clean the panel, straighten the damaged area, prepare the panel for filler, mix and apply filler, and sand and shape filler.

17% Door Striker Adjustment

Participant will safely adjust the striker and door depth using OEM specifications.

22% Refinishing

Participant will safely clean panel, use the tack rag, apply a base coat, and apply clear coat.



Sample Job

Sheet Metal Repair

Maximum Time: 1 hour

Participant Activity: First clean the panel to see what exactly is damaged. Straighten the damaged area and prepare the panel for filler. Next mix and apply body filler. Once dry, sand and shape the panel.

