

VoCATS Course Blueprints

Trade and Industrial Education

7522 Collision Repair Technology II

FORMERLY

7523 Collision Repair Technology III

*Public Schools of North Carolina
State Board of Education • Department of Public Instruction
Office of Instructional and Accountability Services
Division of Instructional Services*

*Raleigh, North Carolina
Summer 1997
(Summer 2001 New Leadership Objectives)*

TRADE AND INDUSTRIAL EDUCATION
COURSE BLUEPRINT for 7523 COLLISION REPAIR TECHNOLOGY III
 [Recommended hours of instruction 270-360]

Comp# Obj.#	Unit Titles / Competency and Objective Statements (The student will be able to:)	Time Hrs.	UNIT Weight	COURSE Weight	Type Behavior	Integrated Skill Area	Core Supp
1	2	3	4	5	6	7	8
	Course Level III			100%			
A	LEADERSHIP (Level 3)		100%	2%			
R301.	Demonstrate job-seeking and interview skills.		100%	2%	C3P	C	Core
<i>R301.01</i>	<i>Demonstrate job-seeking skills.</i>		<i>50%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R301.02</i>	<i>Prepare and participate in a job interview.</i>		<i>50%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
B	WELDING AND CUTTING		100%	4%			
R302.	Utilize MIG to weld unibody components.		100%	4%	C3P	C	Core
<i>R302.01</i>	<i>Set up MIG welding equipment.</i>		<i>25%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R302.02</i>	<i>Weld high strength steel unibody structural components.</i>		<i>75%</i>	<i>3%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
C	PANEL REPAIR		100%	29%			
R303.	Perform sheet metal repair.		31%	9%	C3PA	C SC	Core
<i>R303.01</i>	<i>Analyze damage.</i>		<i>3%</i>	<i>1%</i>	<i>C3</i>	<i>C</i>	<i>Core</i>
<i>R303.02</i>	<i>Clean exterior surface.</i>		<i>3%</i>	<i>1%</i>	<i>C3P</i>	<i>SC</i>	<i>Core</i>
<i>R303.03</i>	<i>Roughout panel.</i>		<i>4%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R303.04</i>	<i>Shrink panel.</i>		<i>3%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R303.05</i>	<i>Prepare surface for body filler.</i>		<i>4%</i>	<i>1%</i>	<i>C3PA</i>	<i>C</i>	<i>Core</i>
<i>R303.06</i>	<i>Apply body filler.</i>		<i>3%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R303.07</i>	<i>Finish body filler.</i>		<i>4%</i>	<i>1%</i>	<i>C3P</i>	<i>C</i>	<i>Core</i>
<i>R303.08</i>	<i>Apply corrosion protectant.</i>		<i>4%</i>	<i>1%</i>	<i>C3P</i>	<i>SC</i>	<i>Core</i>

1	2	3	4	5	6	7	8
R303.09	Use weld-on stud gun to repair sheet metal.		3%	1%	C3P	C	Core
R304.	Perform plastic panel repair.		21%	6%	C3P	SC	Core
R304.01	Identify plastic types.		3%	1%	C1	SC	Core
R304.02	Analyze damage.		4%	1%	C3	SC	Core
R304.03	Clean exterior surface.		4%	1%	C3P	SC	Core
R304.04	Perform chemical plastic welding.		4%	1%	C3P	SC	Core
R304.05	Perform airless plastic welding.		3%	1%	C3P	SC	Core
R304.06	Repair plastic with chemical fillers.		3%	1%	C3P	SC	Core
R305.	Perform fiberglass panel repair.		17%	5%	C3	SC	Core
R305.01	Identify safety procedures when working with fiberglass.		3%	1%	C1	C	Core
R305.02	Analyze damage.		3%	1%	C3	C	Core
R305.03	Prepare exterior and interior surfaces.		4%	1%	C3P	SC	Core
R305.04	Reconstruct fiberglass panels.		4%	1%	C3P	SC	Core
R305.05	Section fiberglass panels.		3%	1%	C3P	SC	Core
R306.	Replace body panels.		21%	6%	C3P	C	Core
R306.01	Remove and replace cosmetic panels/ welded and bolted.		4%	1%	C3P	C	Core
R306.02	Remove and replace welded structural panels.		7%	2%	C3P	C	Core
R306.03	Section welded non-structural panels.		7%	2%	C3P	C	Core
R306.04	Replace bonded door panels.		3%	1%	C3P	C	Core
R307.	Repair/replace bumpers.		10%	3%	C3P	C	Core
R307.01	Remove and replace bumpers and energy absorbers.		3%	1%	C3P	C	Core
1	2	3	4	5	6	7	8

R307.02	Remove and replace soft fascia covers.		3%	1%	C3P	C	Core
R307.03	Repair soft fascia covers.		4%	1%	C3P	C	Core
D	PAINT AND REFINISHING		100%	33%			
R308.	Use refinishing techniques and equipment.		21%	7%	C3P	C	Core
R308.01	Identify refinishing equipment.		3%	1%	C1	C	Core
R308.02	Use safe painting practices, clothing, and equipment.		6%	2%	C3P	C	Core
R308.03	Use paint gun with proper technique.		6%	2%	C3P	C	Core
R308.04	Service and maintain spray gun.		3%	1%	C3P	C	Core
R308.05	Service and maintain paint room.		3%	1%	C3P	C	Core
R309.	Utilize refinishing procedures.		79%	26%	C3P	C SC	Core
R309.01	Identify surface preparation.		3%	1%	C1	C	Core
R309.02	Discuss chemical stripper.		3%	1%	C1	SC	Core
R309.03	Discuss and demonstrate sand stripping technique.		6%	2%	C1	C	Core
R309.04	Prepare surface of old panel.		3%	1%	C3P	C	Core
R309.05	Prepare surface of new panel.		3%	1%	C3P	C	Core
R309.06	Demonstrate appropriate sanding techniques.		6%	2%	C3P	C	Core
R309.07	Demonstrate proper masking techniques.		10%	3%	C3P	C	Core
R309.08	Select and apply appropriate primer/primer sealer/primer surfacer.		6%	2%	C3P	C	Core
R309.09	Perform guide coat/block sanding/reprime.		6%	2%	C3P	C	Core
R309.10	Identify topcoat and topcoat application procedures.		6%	2%	C1	C	Core
R309.11	Mix and apply urethane enamel system.		9%	3%	C3P	SC	Core
R309.12	Mix and apply base coat/clear system.		9%	3%	C3P	SC	Core
R309.13	Blend color coat.		9%	3%	C3P	C	Core
1	2	3	4	5	6	7	8
E	FRAME BODY AND UNIBODY CONSTRUCTION DAMAGE ANALYSIS AND REPAIR.		100%	26%			
R310.	Repair frame body and unibody.		50%	13%	C3P	C	Core

R310.01	Identify vehicle frame construction conventional and unibody.		8%	2%	C1	C	Core
R310.02	Identify the five types of damage.		7%	2%	C1	C	Core
R310.03	Use and interpret specification manuals.		7%	2%	C3	C	Core
R310.04	Identify characteristics and uses of high strength steel.		4%	1%	C3	C	Core
R310.05	Analyze damage using datum gauge.		8%	2%	C3P	C	Core
R310.06	Analyze damage using tram gauge and tape measure.		8%	2%	C3P	C	Core
R310.07	Analyze damage using universal and dedicated measuring system.		8%	2%	C3P	C	Core
R311.	Repair vehicle structure.		50%	13%	C3P	C	Core
R311.01	Straighten and align structural damage.		11%	3%	C3P	C	Core
R311.02	Replace component parts.		4%	1%	C3P	C	Core
R311.03	Perform stress relief using shock.		4%	1%	C3P	C	Core
R311.04	Perform stress relief using heat.		8%	2%	C3P	C	Core
R311.05	Replace high strength steel.		8%	2%	C3P	C	Core
R311.06	Section component parts.		11%	3%	C3P	C	Core
R311.07	Remove and reinstall mechanical components.		4%	1%	C3P	C	Core
F	ESTIMATING SKILLS		100%	6%			
R312.	Inspect for damage.		100%	6%	C3	C	Core
R312.01	Diagnose and analyze damage.		33%	2%	C3	C	Core
R312.02	Use collision manuals.		33%	2%	C3	C	Core
R312.03	Write a damage report in logical sequence using correct terminology.		34%	2%	C1	C	Core