

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
COURSE DESCRIPTION**

**SUBJECT:** Industrial Education  
**COURSE NAME:** Automotive Service Technology 12  
**SUBMISSION TITLE:** Automotive Excellence Volume 1 © 2007  
**PUBLISHER:** Glencoe/McGraw-Hill  
**GRADE(S):** 9-12

**COURSE CODE NUMBER:**

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL
22.0		DEMONSTRATE PROFICIENCY IN FUEL, AIR INDUCTION, POSITIVE CRANKCASE VENTILATION AND EXHAUST SYSTEMS DIAGNOSIS AND REPAIR -- The student will be able to:	
22.01		Diagnose hot or cold no-starting, hard starting, poor driveability, incorrect idle speed, poor idle, flooding, hesitation, surging, engine misfire, power loss, stalling, poor mileage, dieseling, and emissions problems on vehicles with carburetor-type fuel systems; determine necessary action. LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-3 SE1: TA361
22.02		Diagnose hot or cold no-starting, hard starting, poor driveability, and incorrect idle speed, poor idle, flooding, hesitation, surging, engine misfire, power loss, stalling, poor mileage, dieseling, and emissions problems on vehicles with injection-type fuel systems; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-1 SE1: EL284, EP461-462, EP470-483
22.03		Check fuel for contaminants and quality; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-2 SE1: EP449
22.04		Inspect and test mechanical and electrical fuel pumps and pump control systems for pressure, regulation and volume; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244	P-2 SE1: EP457-460
22.05		Replace fuel filters. SC.H.346, LA.A.142, LA.A.143, LA.A.244	P-1 SE1: EP459

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
COURSE DESCRIPTION**

**SUBJECT:** Industrial Education  
**COURSE NAME:** Automotive Service Technology 12  
**SUBMISSION TITLE:** Automotive Excellence Volume 1 © 2007  
**PUBLISHER:** Glencoe/McGraw-Hill  
**GRADE(S):** 9-12

**COURSE CODE NUMBER:**

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL
22.06		Inspect and test cold enrichment system and components; perform necessary action. LA.A.142, LA.A.143, LA.A.244	P-3 SE1: EP440, EP462
22.07		Inspect throttle body, air induction system, intake manifold and gaskets for vacuum leaks and/or unmeasured air. LA.A.142, LA.A.143, LA.A.244	P-2 SE1: EP437-445
22.08		Inspect and test fuel injectors. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-2 SE1: EP464-465
22.09		Check idle speed and fuel mixture. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-2 SE1: EP440
22.10		Adjust idle speed and fuel mixture. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-3 SE1: EP440
22.11		Inspect the integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shield(s); perform necessary action. LA.A.142, LA.A.143, LA.A.244	P-2 SE1: EP366-367, EP367-368, EP413, EP466
22.12		Perform exhaust system back-pressure test; determine necessary action. MA.B.442, MA.E.141	P-1 SE1: EP377-378
22.13		Test the operation of turbocharger/supercharger systems; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	P-3 SE1: EP441
22.14		Diagnose oil leaks, emissions, and driveability problems resulting from failure of the positive crankcase ventilation (PCV) system; determine necessary action. LA.A.142, LA.A.143, LA.A.244	P-1 SE1: EP488-489

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
COURSE DESCRIPTION**

**SUBJECT:** Industrial Education  
**COURSE NAME:** Automotive Service Technology 12  
**SUBMISSION TITLE:** Automotive Excellence Volume 1 © 2007  
**PUBLISHER:** Glencoe/McGraw-Hill  
**GRADE(S):** 9-12

**COURSE CODE NUMBER:**

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL
22.15		Inspect and test positive crankcase ventilation (PCV) filter/breather cap, valve, tubes, orifices, and hoses; perform necessary action. LA.A.142, LA.A.143, LA.A.244	SE1: EP488-489 P-2
23.0		DEMONSTRATE PROFICIENCY IN FUEL, AIR INDUCTION, POSITIVE CRANKCASE VENTILATION AND EXHAUST SYSTEMS DIAGNOSIS AND REPAIR -- The student will be able to:	
23.01		Diagnose emissions and driveability problems caused by failure of the exhaust gas recirculation (EGR) system; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP489-491 P-1
23.02		[6.51] Inspect, test, service and replace components of the EGR system, including EGR tubing, exhaust passages, vacuum/pressure controls, filters and hoses; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP489-491 P-2
23.03		Inspect and test electrical/electronic sensors, controls, and wiring of exhaust gas re-circulation (EGR) systems; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP489-491 P-2
23.04		Diagnose emissions and driveability problems resulting from failure of the secondary air injection and catalytic converter systems determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP491-493 P-2
23.05		Inspect and test mechanical components of secondary air injection systems; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244	SE1: EP491-493 P-3

SE1 = Student Edition Vol 1

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
COURSE DESCRIPTION**

**SUBJECT:** Industrial Education  
**COURSE NAME:** Automotive Service Technology 12  
**SUBMISSION TITLE:** Automotive Excellence Volume 1 © 2007  
**PUBLISHER:** Glencoe/McGraw-Hill  
**GRADE(S):** 9-12

**COURSE CODE NUMBER:**

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL
23.06		Inspect and test electrical/electronically-operated components and circuits of air injection systems; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-3 SE1: EP491-493
23.07		Inspect and test catalytic converter performance. LA.A.142, LA.A.143, LA.A.244	P-1 SE1: EP366-367, EP397, EP477-478, EP494-495
24.0		DEMONSTRATE PROFICIENCY IN INTAKE AIR TEMPERATURE CONTROLS, EARLY FUEL EVAPORATION (INTAKE MANIFOLD TEMPERATURE) CONTROLS AND EVAPORATIVE EMISSIONS CONTROLS --The student will be able to:	
24.01		Diagnose emissions and driveability problems resulting from malfunctions in the intake air temperature control system; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-3 SE1: EP394-395
24.02		Inspect and test components of intake air temperature control system; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	P-3 SE1: EP395, EP467
24.03		Diagnose emissions and driveability problems resulting from malfunctions of early fuel evaporation control systems; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	P-3 SE1: EP480, EP496-497
24.04		Inspect and test components of early fuel evaporation control system; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	P-3 SE1: EP480, EP496-497

SE1 = Student Edition Vol 1

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
COURSE DESCRIPTION**

**SUBJECT:** Industrial Education  
**COURSE NAME:** Automotive Service Technology 12  
**SUBMISSION TITLE:** Automotive Excellence Volume 1 © 2007  
**PUBLISHER:** Glencoe/McGraw-Hill  
**GRADE(S):** 9-12

**COURSE CODE NUMBER:**

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL
24.05		Diagnose emissions and driveability problems resulting from failure of evaporative emissions control system; determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP487-501 P-1
24.06		Inspect and test components and hoses of evaporative emissions control system; perform necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244	SE1: EP480, EP495-497, EP501 P-2
24.07		Interpret evaporative emission related diagnostic trouble codes (DTCs); determine necessary action. SC.H.346, LA.A.142, LA.A.143, LA.A.244	SE1: EP480, EP495-497, EP501 P-1
25.0		DEMONSTRATE PROFICIENCY IN ENGINE RELATED SERVICE --The student will be able to:	
25.01		Adjust valves on engines with mechanical or hydraulic lifters. LA.A.142, LA.A.143, LA.A.244	SE1: EP359, EP362 P-1
25.02		Remove and replace timing belt; verify correct camshaft timing. LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141, MA.B.242	SE1: EP430-432 P-1
25.03		Remove and replace thermostat. LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP383 P-2
25.04		Inspect and test mechanical/electrical fans, fan clutch, fan shroud/ducting, air dams, and fan control devices; perform necessary action. LA.A.142, LA.A.143, LA.A.244, MA.B.442, MA.E.141	SE1: EP384 P-2

8709493

I/M*

8709493

I/M*

8709493

I/M*

8709493

I/M*

8709493

I/M*