

**DEKALB TECHNICAL COLLEGE**  
**Clarkston Campus**

**AUTOMOTIVE TECHNOLOGY**  
**ENGINE PERFORMANCE TECHNICIAN**

**TECHNICAL CERTIFICATE OF CREDIT**

The Automotive Technology Technical Certificates of Credit programs are sequences of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The programs emphasize a combination of automotive mechanics theory and practical application necessary for successful employment as automotive technicians, service advisors, or in management.

Course Number	Course	Class Hours	Lab Hours	Total Hours	Credit Hours	Prerequisites/Corequisites
AUT 120	Introduction to Automotive Technology	20	30	50	3	
AUT 122	Electrical and Electronic Systems	40	60	100	6	AUT 120
AUT 124	Battery, Starting, Charging Systems	20	60	80	4	AUT 122
AUT 126	Engine Principles of Operations/Repair	30	90	120	6	AUT 120
AUT 128	Fuel, Ignition, Emission Systems	50	60	110	7	AUT 122, AUT 124, Pre/Co-req AUT 126
AUT 140	Electronic Engine Control Systems	60	30	90	7	AUT 128
AUT 218	Adv. Elect Engine Control Systems	30	30	60	4	AUT 140

CIP CODE: 47.060401

MAJOR CODE: NG01

REQUIRED CREDIT HOURS: 37

10/07

The curriculum is subject to change to meet changing conditions. As set forth in its catalog, DeKalb Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

**AUTOMOTIVE TECHNOLOGY COURSE DESCRIPTIONS**

**AUT 120 - INTRO TO AUTOMOTIVE TECHNOLOGY (3)**

Introduces basic concepts and practices necessary for safe and effective automotive shop operation. Topics include: safety procedures; legal/ethical responsibilities; shop organization, management, and work flow systems; measurement techniques; and hand tools.

**AUT 122 - ELECTRICAL & ELECTRONIC SYSTEMS (6)**

Prerequisite/Corequisite: AUT 120

Introduces automotive electricity. Topics include: general electrical system diagnosis; lighting system diagnosis and repair; gauges, warning devices, and driver information system diagnosis and repair; horn and wiper/washer diagnosis and repair; accessories diagnosis and repair.

**AUT 124 - BATTERY, STARTING & CHARGING SYS(4)**

Prerequisite/Corequisite: AUT 122

Emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting systems components, alternators, and regulators. Topics include: battery diagnosis and service; starting system diagnosis and repair; charging system diagnosis and repair.

**AUT 126 - ENGINE PRINCIPLES OF OPERATION AND REPAIR (6)**

Prerequisite: AUT 120

Introduces automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques. Topics include: general diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

**AUT 128 - FUEL, IGNITION, & EMISSION SYSTEMS (7)**

Prerequisites: AUT 122, AUT 124

Prerequisite/Corequisite: AUT 126

Introduces fuel, ignition, and exhaust systems theory, diagnosis, repair, and service for vehicles with carburetion

and fuel injection systems. Topics include: general engine diagnosis; ignition system diagnosis and repair; fuel, air induction, and exhaust systems diagnosis and repair; positive crankcase ventilation; exhaust gas re-circulation; engine related service.

**AUT 140 - ELECTRONIC ENGINE CONTROL SYS (7)**

Prerequisite: AUT 128

Introduces concept of electronic engine control. Topics include: computerized engine controls diagnosis and repair; intake air temperature controls; early fuel evaporation (intake manifold temperature) controls; evaporative emissions controls.

**AUT 218 - ADVANCED ELECTRONIC ENGINE CONTROL SYSTEMS (4)**

Prerequisite: AUT 140

Introduces On-Board Diagnostics II (OBD II), California Air Research Board (CARB) requirements and monitoring technology, diagnostic trouble code definitions, and essentials of advanced driveability diagnosis and data interpretation using a scanner. Topics include: OBD II standards; monitoring capabilities; OBD II diagnostics; OBD II terms.

**ESTIMATED PROGRAM COSTS**

**ENGINE PERFORMANCE TECHNICIAN**

Tuition/Fees.....	\$1,632.00
Books.....	110.00
Supplies.....	100.00
<b>Total.....</b>	<b>\$1,842.00*</b>

\*Based on 3 quarters.

Tuition/fees and cost of books/supplies are estimates only and are subject to change without notice. Tuition is based on Georgia residency.  
10/07