



### About the Program

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare individuals to engage in the servicing and maintenance of all types of automobiles at the entry level. The program prepares the individual to select, safely use, and maintain hand and power tools, jacks, and hoisting equipment. Instruction in the diagnosis of malfunctions and the repair of engines; fuel, electrical, cooling, and brake systems; drive train; and suspension systems is included. The competencies in the Automotive Technology Program are directly correlated with the knowledge required to prepare an individual for the certification test given by the National Institute for Automotive Service Excellence (ASE). The

content is organized into competency-based courses of instruction that specify occupational competencies the individual must successfully complete according to the priorities for tasks established by the National Automotive Technicians Education Foundation (NATEF).

### Degrees/Certificates

Technical Diploma (TD)  
Certificate of Technical Studies (CTS)  
Technical Competency Area (TCA)

*Available degrees and certificates may vary at each campus. Check with your local campus for more information.*

**CIP 470604**

<b>Automotive Technology CURRICULUM</b>				
Course #	Course Title	Lecture/Lab Hours	Credit Hours	Clock Hours
ORNT1000	Student College/Career Success Seminar	1/0	1	15
AUTO1100	General Engine Diagnosis and Repair	0/2	2	60
AUTO1110	Cylinder Head and Valve Train Diagnosis and Repair	0/1	1	30
AUTO1120	Engine Block Assembly Diagnosis and Repair	0/1	1	30
AUTO1130	Lubrication and Cooling System Diagnosis and Repair	0/1	1	30
<b>TCA- Engine Repair Technician</b>			<b>6</b>	<b>165</b>
AUTO1200	General Transmission and Transaxle Diagnosis	0/1	1	30
AUTO1210	Transmission and Transaxle Maintenance	0/1	1	30
AUTO1220	In Vehicle Repair	0/1	1	30
AUTO1230	Off-Vehicle Transmission and Transaxle Repair I	0/1	1	30
AUTO1240	Off-Vehicle Transmission and Transaxle Repair II	0/1	1	30
<b>TCA- Automatic Transmission &amp; Transaxle Technician</b>			<b>5</b>	<b>150</b>
AUTO1300	Drive Train and Clutch Diagnosis and Repair	0/1	1	30
AUTO1310	Transmission and Transaxle Diagnosis and Repair	0/1	1	30
AUTO1320	Drive and Half Shaft and Universal Joint Repair	0/1	1	30
AUTO1330	Drive Axle Diagnosis and Repair	0/1	1	30
AUTO1340	Four and All-Wheel Drive Diagnosis and Repair	0/1	1	30
<b>TCA- Manual Drive Train Technician</b>			<b>5</b>	<b>150</b>
AUTO1400	General Steering and Suspension Diagnosis	0/1	1	30
AUTO1410	Steering System Diagnosis and Repair	0/1	1	30
AUTO1420	Suspension Systems Diagnosis and Repair	0/1	1	30
AUTO1430	Wheel Alignment Diagnosis and Repair	0/1	1	30
AUTO1440	Wheel & Tire Diagnosis & Repair	0/1	1	30
<b>TCA - Steering &amp; Suspension Technician</b>			<b>5</b>	<b>150</b>
AUTO1500	Hydraulic Systems Diagnosis and Repair	0/1	1	30
AUTO1510	Drum Brake Diagnosis and Repair	0/1	1	30
AUTO1520	Disc Brake Diagnosis and Repair	0/1	1	30
AUTO1530	Power Assist Diagnosis and Repair	0/1	1	30
AUTO1540	Antilock and Traction Control Diagnosis and Repair	0/1	1	30
<b>TCA - Brake Technician</b>			<b>5</b>	<b>150</b>
AUTO1600	General Electrical System Diagnosis	0/2	2	60
AUTO1610	Battery Diagnosis and Repair	0/1	1	30
AUTO1620	Starting Systems Diagnosis and Repair	0/2	2	60
AUTO1630	Charging Systems Diagnosis and Repair	0/2	2	60
AUTO1640	Lighting Systems, Gauges, Warning Devices, and Driver Information Diagnosis and Repair	0/1	1	30

Course #	Course Title	Lecture/Lab Hours	Credit Hours	Clock Hours
AUTO1650	Horn and Wiper/Washer Diagnosis and Repair	0/1	1	30
AUTO1660	Electrical Accessories Diagnosis and Repair	0/1	1	30
<b>TCA - Electrical Technician</b>			<b>10</b>	<b>300</b>
AUTO1700	HVAC System Diagnosis and Repair	0/1	1	30
AUTO1710	Refrigeration System Component Diagnosis and Repair	0/1	1	30
AUTO1720	Heating and Ventilation System Component Diagnosis and Repair	0/1	1	30
AUTO1730	Operating Systems and Related Controls	0/1	1	30
AUTO1740	Refrigerant Recover, Recycling, and Handling	0/1	1	30
<b>TCA - Heating and Air Conditioning Technician</b>			<b>5</b>	<b>150</b>
AUTO1800	General Engine Diagnosis	0/3	3	90
AUTO1810	Computerized Engine Controls Diagnosis and Repair	0/3	3	90
AUTO1820	Ignition Systems Diagnosis and Repair	0/2	2	60
AUTO1830	Fuel, Air Induction, and Exhaust Systems	0/2	2	60
AUTO1840	Emissions Systems Diagnosis & Repair	0/3	3	90
AUTO1850	Engine Related Services	0/2	2	60
<b>TCA - Engine Performance Technician</b>			<b>15</b>	<b>450</b>
JOBS2450	Job Seeking Skills	2/0	2	30
CPTR1000	Introduction to Computers	1/1	2	45
<b>TD - Automotive Technician</b>			<b>60</b>	<b>1740</b>
<b>General Electives:</b>				
AUTO1150	Automotive Internship I	0/4	4	180
AUTO1250	Automotive Internship II	0/4	4	180
AUTO1350	Automotive Internship III	0/2	2	90
AUTO1450	Automotive Internship IV	0/5	5	240
AUTO1550	Automotive Internship V	0/5	5	240
AUTO1670	Automotive Internship VI	0/4	4	180
<b>Optional Electives:</b>				
CSRV1000	Customer Service	3/0	3	45
CSRV2000	Customer Service and Sales	3/0	3	45
ENTP1000	Foundations of Entrepreneurship	3/0	3	45
<i>The following courses may be substituted for the above course requirements with approval from the College's Chief Academic Officer.</i>				
AUTO2991	Special Projects I	0/1	1	30
AUTO2993	Special Projects II	0/2	2	60
AUTO2995	Special Projects III	0/3	3	90
AUTO2996	Special Projects IV	3/0	3	45
AUTO2997	Practicum	0/3	3	135
AUTO2999	Cooperative Education	0/3	3	135

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The technical courses in the Automotive Technology program are divided into nine (9) concentrations. The Basic Automotive Skills course should be taken prior to beginning any of the additional eight (8) areas of certification, which are arranged to prepare an individual for ASE certification. Upon successful completion of each of the eight (8) areas of certification, a TCA certificate may be awarded for each specific area. **CTS's may be awarded as follows:**

**CTS - Electrical Technician, 25 credits**

Complete TCA Electrical Technician and any three (3) of the following TCAs:

- TCA – Engine Repair Technician
- TCA – Automatic Transmission & Transaxle Technician
- TCA – Manual Drive Train Technician
- TCA – Steering and Suspension Technician
- TCA – Brake Technician
- TCA – Heating and Air Conditioning Technician

**CTS – Engine Performance Technician, 25 credits**

Complete the following TCAs:

- TCA – Electrical Technician
- TCA – Engine Performance Technician

**CTS – Power Train Technician, 25 credits**

Complete five (5) of the following TCAs

- TCA – Engine Repair Technician
- TCA – Automatic Transmission & Transaxle Technician
- TCA – Manual Drive Train Technician
- TCA – Steering and Suspension Technician
- TCA – Brake Technician
- TCA – Heating and Air Conditioning Technician