

Skill Sets – Automotive Technology

Automatic Transmissions & Transaxles		
Dept.	Course Title	Sem. Hrs.
ATT	226 Automatic Transmissions & Transaxles *	4
CIS	108 Computer Fundamentals	3

**NOTE: Course may require Pre/Co-requisite courses.*

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Develop knowledge and skills to service automatic transmissions and transaxles.
- Apply knowledge and skills to diagnose and repair system components such as automatic transmissions, transaxles, torque converters and electronic controls.

Automotive Electricity/Electronics		
Dept.	Course Title	Sem. Hrs.
ATT	124 Automotive Electricity/Electronics I *	4
ATT	205 Automotive Electricity/Electronics II *	4
CIS	108 Computer Fundamentals	3

**NOTE: Course may require Pre/Co-requisite courses.*

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Develop skills necessary for diagnosis and repair of automotive electrical and electronic components and systems.
- Interpret wiring diagrams, electrical symbols and functions of automotive electrical and electronic systems.
- Apply knowledge and skills in diagnosis and repair of electronically controlled operations such as anti-theft systems, supplemental restraints, body modules, and keyless entry.
- Develop knowledge and understanding of hybrid and alternative fuel technology.

Automotive Heating and Air Conditioning Systems		
Dept.	Course Title	Sem. Hrs.
ATT	128 Automotive Heating and Air Conditioning *	4
CIS	108 Computer Fundamentals	3

**NOTE: Course may require Pre/Co-requisite courses.*

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Diagnose malfunctions in the vacuum, mechanical, and electrical components of the heating, ventilation, and A/C (HVAC) system.
- Diagnose malfunctions in the electrical controls of heating, ventilation, and A/C system.

Braking Systems		
Dept.	Course Title	Sem. Hrs.
ATT	105 Braking Systems *	4
CIS	108 Computer Fundamentals	3

**NOTE: Course may require Pre/Co-requisite courses.*

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Remove, clean, and inspect brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, and backing support plates; lubricate and reassemble.
- Diagnose poor stopping, wheel lock-up, abnormal pedal feel or pulsation, and noise concerns caused by the antilock brake system (ABS); determine necessary action.

Engine Performance			
Dept.		Course Title	Sem. Hrs.
ATT	126	<u>Engine Performance I</u> *	4
ATT	207	<u>Engine Performance II</u> *	4
CIS	108	<u>Computer Fundamentals</u>	3

*NOTE: Course may require Pre/Co-requisite courses.

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Develop knowledge and skills for the diagnosis and repair of systems that control engine performance.
- Diagnose mechanical and electronic malfunctions and exhaust problems which impact engine performance.
- Develop knowledge and skills necessary for diagnosis and repair of electronic systems that enhances engine performance.
- Apply OBDII and Mode 6 diagnostics techniques.

Engine Repair			
Dept.		Course Title	Sem. Hrs.
ATT	103	<u>Engine Repair</u> *	4
CIS	108	<u>Computer Fundamentals</u>	3

*NOTE: Course may require Pre/Co-requisite courses.

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Disassemble engine block; clean and prepare components for inspection and reassembly.
- Perform cooling system pressure tests; evaluate coolant condition; examine and test radiator, pressure cap, coolant recovery tank, and hoses; determine necessary action.

Manual Drive Train & Transaxle			
Dept.		Course Title	Sem. Hrs.
ATT	224	<u>Manual Drive Train & Transaxle</u> *	4
CIS	108	<u>Computer Fundamentals</u>	3

*NOTE: Course may require Pre/Co-requisite courses.

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Develop knowledge and skills to service automotive manual drive trains and transaxles.
- Apply knowledge and skills to diagnosis and repair system components such as clutches, manual transmissions, transaxles and axles.

Suspension and Steering Systems			
Dept.		Course Title	Sem. Hrs.
ATT	107	<u>Suspension and Steering Systems</u> *	4
CIS	108	<u>Computer Fundamentals</u>	3

*NOTE: Course may require Pre/Co-requisite courses.

Upon successful completion of the skill set, students will be able to:

- Develop skills in maintaining and using computers through the use of windows.
- Use internet, e-mail, and other software applications.
- Diagnose power steering gear binding, uneven turning effort, looseness, hard steering, and fluid leakage concerns; determine necessary action.
- Diagnose suspension system noises, body sway, and uneven riding height concerns; determine necessary action.