

ESSENTIAL REQUIREMENTS FOR THE AUTOMOTIVE CERTIFICATE PROGRAM

The automotive industry has seen vast changes in system controls since the advent of tighter emission and mileage standards set by the federal government. These changes have created a drastic need for technicians able to adapt rapidly to changes in design and technology.

The job market for automotive mechanics and technicians has been recognized by Santa Fe College. In response to industry requests, a training program has been developed to meet the needs of all industry and provide the best possible training for future automotive technicians.

A student now entering the program should plan on progressing through 1800 hours of training. This training provides hands-on experience on all systems of the vehicle along with computer-enhanced learning experiences to emphasize theory and diagnostic procedures.

Completion of all classes will lead to a certificate of completion in Automotive Service Technology and should enable the student to enter the workforce as a general line mechanic or a specialty technician.

The instruction, course of study, facilities and equipment of the Automotive Program have been evaluated and certified by the National Automotive Technicians Education Foundation (NATEF). They meet the National Institute for Automotive Service Excellence (ASE) standards of quality for the training of automobile technicians in the following areas:

- Electrical Systems; Manual Transmissions and Drivetrains
- Engine Performance; Automatic Transmissions/Transaxles
- Engine Repair; Brakes; Heating and Air Conditioning; Suspension and Steering

The program has received State and National awards from the Automotive Industry Planning Council (AIPC), composed of members of the National Association for Career and Technical Education (ACTE), representatives of the automotive manufacturing industry and the National Institute for Automotive Service Excellence (ASE).

Section 1. Essential Observational Requirements for Automotive Certificate Students.

The Automotive student must be able to:

- observe laboratory demonstrations in which vehicles with technical and mechanical problems are diagnosed and repaired.
- describe the condition of a vehicle verbally and in writing.
- use diagnostic equipment effectively by correctly placing sensors on the appropriate wiring and instruments of a vehicle.
- read and comprehend text, numbers, and graphs displayed in print and on a video monitor or screen.

Section 2. Essential Movement Requirements for Automotive Certificate Students.

The Automotive student must be able to:

- be in the automotive classroom as well as the service lab at the designated times as described in the course syllabus for educational experiences.
- work in confined spaces.
- move safely around the classroom and automotive service lab.
- reach various areas within a vehicle including getting into tight, hard to reach places for moderate periods of time.
- perform moderately taxing continuous physical work, often requiring prolonged standing over several hours.
- demonstrate sufficient strength, balance, and mobility in order to frequently handle dirty and greasy parts, e.g. removing the head of a V-8 or straight 6 cylinder engine.
- tolerate contact with various petroleum products and other moderately hazardous materials.
- demonstrate proper use and control of power tools as well as diagnostic equipment.
- use an electronic keyboard (e.g. 101 -key IBM computer keyboard) to operate lab equipment and to calculate, record, evaluate, and transmit automotive information.
- operate vehicles safely.

Section 3. Essential Communication Requirements for Automotive Certificate Students.

The Automotive student must consistently demonstrate the ability to:

- read and comprehend technical and professional materials (e.g. textbooks, schematics, handbooks, procedure and instruction manuals).
- comprehend verbal communications, including lectures, discussions, and conversations with automotive professionals and clients.
- follow verbal and written instructions in order to correctly and independently perform shop duties.
- effectively communicate with vehicle owners about problems and repairs.
- independently prepare papers and homework, and take paper, computer, and laboratory practical examinations.

Section 4. Essential Cognitive Requirements for Automotive Certificate Student.

The Automotive student must:

- independently possess the following cognitive and problem-solving skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, self-expression, and patience. The student must also be able to demonstrate these skills by achieving the state mandated TABE test scores (9.0 Reading; 9.0 Language; 10.0 Math) by the end of the program.
- be able to use a diagnostic approach to thoroughly examine vehicles to determine not only any current problems but also to find any worn parts that may cause the vehicle (and driver) problems in the future.

Section 5. Essential Behavioral Requirements for Automotive Certificate Student.

The Automotive student must consistently demonstrate the ability to:

- manage the use of time and organize work in order to complete multiple tasks and responsibilities within realistic constraints.
- independently exercise appropriate judgment and apply cognitive skills in the classroom, automotive lab, and automotive service settings.
- provide professional and technical services while experiencing the stresses of task-related uncertainty (e.g. impatient customers, the occasional cut and bruise), emergent demands (high level of "walk-ins"), and a distracting environment (e.g. high noise levels, hot and drafty conditions).
- be flexible and creative and adapt to professional and technical change.
- recognize potentially hazardous materials, equipment, and situations and work safely in order to minimize risk of injury to customers, self and nearby individuals.
- adapt to working with unpleasant substances (e.g. old coolant, gas, transmission fluid).
- foster a team approach by supporting and promoting the activities of fellow students and automotive professionals in learning, task completion, problem solving, and customer service.
- admit when an error has been made, when uncertain about a diagnostic result, or when unsure about the appropriate response in professional situations.
- critically evaluate his or her own performance, accept constructive feedback, and seek ways for improvement (e.g. participate in enriching educational activities).
- evaluate the performance of fellow students, faculty, advisors, and the program as well as tactfully offer constructive feedback.
- adhere to all course policies and procedures as outlined in the course syllabus.
- adhere to all college policies and procedures as outlined in the student handbook.