

# DIESEL TECHNOLOGY ATC

---

The Diesel Technology Program provides a well-rounded education in the service and repair of trucks and heavy equipment related to areas including farming, logging, marine, locomotive, and construction. Students learn theory in shop practice, diesel engines, safety, hydraulics, DC electrical systems and microcomputers, power trains, brakes, and chassis and suspension. The student will also receive comprehensive safety training applicable to the work environment. Employment opportunities are available with a wide variety of diverse companies including trucking, logging, mining, construction, general and specialty repair shops, dealerships, and government agencies including the park service, the state, county shops, city shops, and other state and federal agencies. Students entering with prior training from high school, military, or industry can challenge portions of the training program by examination and/or performance testing. Students must achieve competencies in course work before moving to the next instructional area. Shop experience is combined with related theory. A specified set of tools is required upon entry. The tool list can be found on the program website.

All students will be subject to a Driver's License Validation check and must hold a valid driver's license while enrolled in the mechanics programs. This program has physical requirements that may affect the student's ability to perform in this program.

## Admission requirements

All diesel students need to complete a program application. Priority application deadlines are as follows:

- Fall registration – February 1
- Spring registration – October 1

## Admission Checklist

1. Complete general LC State admission requirements
2. Submit Diesel application
3. Schedule meeting with program faculty

Entrance requirements for Advanced Technical Certificate (ATC) degree seeking students include:

- A valid driver's license with no DUI conviction within the past year.
- ALEKS score of 14 or higher in Math and Writing Placement Exam score of 2 or higher, or qualify for MTHPT-103 and ENGL-101.
- Physical recommendations as listed on US Bureau of Labor Statistics for Diesel Technology.

The diesel program has limited space, and a waitlist is utilized if the program is full. Duration on the waitlist is one semester. If students do not move into program classes after one semester on the waitlist, they need to reapply for the diesel program.

Upon completion of the Advanced Technical Certificate, the student will possess skills in:

- Application of shop and industry safety procedures
- Develop a safety attitude, use and identify personal protective equipment, understand fire safety, and material handling
- Understand terminology; knowledge of tools and equipment; knowledge of CDL operation; use of scan tools and diagnostic tools
- Certification in forklift and crane operation
- Evaluation of diesel engine performance
- Engine identification and external component identification
- Familiar with Power Trains systems; able to disassemble and reassemble PowerShift transmissions, straight gear transmissions, drive lines, differentials, and clutches
- Able to troubleshoot and repair various engine systems such as engine brakes, emission controls, evolving hybrids, electrical, and multiplexing.
- Knowledge of theory and operation of various systems
- Learn the basic operation and function of air brakes, chassis, and suspension systems
- Understand hydraulic schematics; diagnosing and repairing hydraulic systems
- A/C systems students will receive MACS A/C Certification
- Knowledge of DOT compliance
- Obtain Commercial Driver's License Training (CDL)

## Advanced Technical Certificate Requirements

Code	Title	Credits
<b>Technical Component</b>		
DSLTC-102	ELECTRICAL SYSTEMS (or DSLTC-102A, DSLTC-102B and DSLTC-102C)	6.00
DSLTC-103	POWER TRAINS LECTURE AND LAB	6.00

DSLTC-105	DIESEL ENGINES	6.00
DSLTC-126	SAFETY	2.00
DSLTC-200	SHOP SKILLS AND CLIMATE CONTROL	6.00
DSLTC-210	HYDRAULICS	6.00
DSLTC-220	DIESEL ENGINE FUEL SYSTEMS AND TUNE-UP	6.00
DSLTC-230	POWER TRAINS	6.00
DSLTC-240	CHASSIS, SUSPENSION AND AIRBRAKES	6.00
MTHPT-103	APPLIED ALGEBRA	3.00
<b>Total Credits</b>		<b>53.00</b>