

DIESEL/HEAVY EQUIPMENT

College of Rural and Community Development
Community and Technical College
907-455-2843
www.ctc.uaf.edu/programs/diesel/

Certificate

Minimum Requirements for Certificate: 36 credits

The diesel and heavy equipment mechanics program offers training in the maintenance and repair of trucks, buses and heavy equipment. This one-year certificate program emphasizes hands-on training and in-class experience as students perform preventive maintenance inspections, determine causes of equipment problems and make necessary repairs and adjustments from tune-ups to complete engine and equipment overhauls. Students work on large truck fuel, electrical and air systems, diesel engines, transmissions, differentials, crawler tractor undercarriages, steering and final drives. A student may request credit by examination for any DSLT or MECN class. See department coordinator for details.

Certificate Program

1. Complete the general university requirements (page 109).
 2. Complete the certificate requirements. (See page 109. As part of the certificate requirements, the communication, human relations, and computation content is embedded in the major required courses for this program.)
 3. Complete the following program (major) requirements:

| | |
|--|---|
| DSLTL F101—Safety Including Rigging and Lifting..... | 1 |
| DSLTL F103—Basic Equipment and Truck Operation | 1 |
| DSLTL F105—Preventive Maintenance..... | 3 |
| DSLTL F107—Basic Electrical Systems and Electrical Fuel Injection | 3 |
| DSLTL F110—Basic Industrial Fabrication | 2 |
| DSLTL F111—Diesel Emissions | 2 |
| DSLTL F123—Heavy Duty Braking Systems..... | 3 |
| DSLTL F154—Diesel Fuel Injection..... | 3 |
| DSLTL F201—Manual Transmissions and Differentials | 3 |
| DSLTL F202—Heavy Duty Automatic Transmissions..... | 2 |
| DSLTL F210—Heavy Equipment Fabrication | 2 |
| DSLTL F254—Engine..... | 5 |
| MECN F103—Starting and Charging Systems | 3 |
| MECN F210—Hydraulics | 3 |
 4. Minimum credits required36
- * Students must earn a C grade or better in each course.

Certificate Requirements

Communication 2-3 Credits

Complete one of the following:

- ENGL F111X—Introduction to Academic Writing..... (3)
- ABUS F170—Business English.....(3)
- ABUS F271—Business Communications(3)
- ENGL F211X—Academic Writing about Literature.....(3)
- ENGL F212—Business, Grant and Report Writing*(3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences(3)
- COMM F121X—Introduction to Interpersonal Communication(3)
- COMM F131X—Fundamentals of Oral Communication: Group Context(3)
- COMM F141X—Fundamentals of Oral Communication: Public Context.....(3)
- or successful completion of competency test
- DEVS F104—University Communications.....(1-3)
- DEVS F105—Intensive Reading Development(3)
- Other program-approved discipline-based communication course or discipline-based courses with embedded communication content.....(2-3)

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

Computation 2-3 Credits

Complete one of the following:

- Any course at the F100-level or above in mathematical sciences (computer science, math or statistics).....(3)
- ABUS F155—Business Math.....(3)
- DEVM F105—Intermediate Algebra(3)
- ECE F117—Math Skills for Early Childhood Educators.....(3)
- HLTH F116—Mathematics in Health Care(3)
- HUMS F117—Math Skills for Human Services(3)
- TTCH F131—Mathematics for the Trades(3)
- Other program-approved discipline-based computation course or discipline-based courses with embedded computation content.(2-3)

Human Relations 2-3 Credits

Complete one of the following:

- ANTH F100X/SOC F100X—Individual, Society and Culture (s).....(3)
- ABUS F154—Human Relations(3)
- ANL F287—Teaching Methods for Alaska Native Languages (h).....(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Child Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s).....(3)
- HUMS F120—Cultural Diversity in Human Services.....(3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND
RHS F115—Issues of Personal Development(2)
- Other program-approved discipline-based human relations or discipline-based courses with embedded human relations content.(2-3)

Major specialtyat least 21 Credits

Electives to total 30 Credits

Associate of Applied Science Requirements

Written Communication 6 Credits

- ENGL F111X—Introduction to Academic Writing.....(3)

Complete one of the following:

- ABUS F271—Business Communications(3)
- ENGL F211X—Academic Writing about Literature.....(3)
- ENGL F212—Business, Grant and Report Writing*(3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences(3)

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

Oral Communication 3 Credits

Complete one of the following:

- COMM F121X—Introduction to Interpersonal Communication(3)
- COMM F131X—Fundamentals of Oral Communication: Group Context(3)
- COMM F141X—Fundamentals of Oral Communication: Public Context.....(3)
- or successful completion of competency test

Computation 3 Credits

Complete one of the following:

- Any course at the F100 level or above in mathematical sciences (computer science, math or statistics).....(3)
- ABUS F155—Business Math.....(3)
- DEVM F105—Intermediate Algebra(3)
- ECE F117—Math Skills for Early Childhood Educators.....(3)
- HLTH F116—Mathematics in Health Care(3)
- HUMS F117—Math Skills for Human Services(3)
- TTCH F131—Mathematics for the Trades(3)
- Other program-approved discipline-based computation course or discipline-based course with embedded computation content.....(3)

Human Relations 3 Credits

Complete one of the following:

- ANTH F100X/SOC F100X—Individual, Society and Culture (s)(3)
- ABUS F154—Human Relations(3)
- ANL F287—Teaching Methods for Alaska Native Languages (h).....(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Childhood Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s).....(3)
- HUMS F120—Cultural Diversity in Human Services.....(3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND
RHS F115—Issues of Personal Development(2)
- Other program-approved discipline-based human relations course or discipline-based course with embedded human relations content.....(3)

Major specialtyat least 30 Credits

Electives to total 60 Credits

Minimum credits required for degree 60 Credits