

Diesel Technology • Ag/Industrial Tractor Option or Truck Option

Semester Course Outline • 2024 – 2025

18 Months (4 Semesters) • Revised: 1/17/24

Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 69.5



Diesel Technology courses are taught in a sequential manner, therefore all first year course work must be completed before a student is eligible to enroll in their second year.

First Year – Fall Semester

| Course Number | Course Title | Clock Hours | Credits |
|--|---------------------------------------|-------------|---------|
| DT 107 | Welding Technologies | 28 | 1 |
| DT 117 | Shop Management | 28 | 1 |
| DT 137 | Powertrains I | 84 | 3 |
| DT 144 | Electrical Systems | 84 | 3 |
| DT 147 | Hydraulics | 84 | 3 |
| DT 155 | Preventive Maintenance and Inspection | 84 | 3 |
| HAZ 100 | Hazardous Materials Safety | 14 | .5 |
| <ul style="list-style-type: none"> Selected Social Science Course (Choose one) ECON 105 – Leadership in the Global Workplace ECON 201 – Principles of Microeconomics I * ECON 202 – Principles of Macroeconomics II * SOC 100 – Introduction to Sociology * | | 45 | 3 |
| Total | | 451 | 17.5 |

First Year – Spring Semester

| Course Number | Course Title | Clock Hours | Credits |
|--|---|-------------|---------|
| DT 126 | Multi-cylinder Engine Overhaul | 84 | 3 |
| DT 149 | Hydraulic Brakes | 28 | 1 |
| DT 152 | Powertrains II | 56 | 2 |
| DT 165 | Heating, Ventilation, and Air Conditioning (HVAC) | 84 | 3 |
| DT 179 | Diesel Engines I A | 42 | 1.5 |
| DT 184 | Diesel Engines I B | 42 | 1.5 |
| CSC 100 | Computer Concepts | 15 | 1 |
| CSC 182 | Technician Software | 56 | 2 |
| <ul style="list-style-type: none"> Selected Mathematics Course (Choose one) MATH 100 – Applied General Math MATH 101 – Intermediate Algebra MATH 114 – College Algebra * | | 45 | 3 |
| Total | | 452 | 18 |
| Optional Courses Available (Offered in Spring Semester Only) | | | |
| CDL 100 | CDL Written Preparation | 15 | 1 |
| CDL 105 | CDL Vehicle Inspection | 28 | 1 |
| CDL 110 | CDL Drivers Training | 56 | 2 |



Second Year – Fall Semester

| Course Number | Course Title | Clock Hours | Credits |
|--|--|-------------|---------|
| DT 210 | Diesel Engines II | 84 | 3 |
| DT 237 | Fuel Systems Tune-up and Troubleshooting | 84 | 3 |
| DT 238 | Electrical Testing | 84 | 3 |
| DT 247 | Emission Systems | 84 | 3 |
| <ul style="list-style-type: none"> Selected Behavioral Science Course (Choose one) PSYC 100 – Psychology of Human Relations PSYC 101 – General Psychology * | | 45 | 3 |
| Total | | 381 | 15 |

Second Year – Spring Semester Ag/Industrial Tractor Option

| Course Number | Course Title | Clock Hours | Credits |
|---|---|-------------|---------|
| DT 245 | Hydraulic System Diagnostics | 112 | 4 |
| DT 246 | Heating, Ventilation, and Air Conditioning (HVAC) Testing | 28 | 1 |
| DT 278 | Combine Hydraulic and Electrical Familiarization | 56 | 2 |
| DT 282 | Tractor Shop Production | 168 | 6 |
| DT 291 | Tractor Electronic Controls/Global Positioning Systems and Auto Steer | 84 | 3 |
| <ul style="list-style-type: none"> Selected Communications Course (Choose one) CMST 101 – Foundations of Communication * (CSS 100 – Career Search Strategies .5 credit) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) | | 45 | 3 |
| Total | | 493 | 19 |
| Optional Courses Available (Offered in Spring Semester Only) | | | |
| CDL 100 | CDL Written Preparation | 15 | 1 |
| CDL 105 | CDL Vehicle Inspection | 28 | 1 |
| CDL 110 | CDL Drivers Training | 56 | 2 |



Second Year – Spring Semester – Truck Option

| Course Number | Course Title | Clock Hours | Credits |
|---|---|-------------|---------|
| DT 216 | Truck Suspension and Steering | 112 | 4 |
| DT 217 | Truck Brake Systems | 112 | 4 |
| DT 229 | Engine Diagnostics and Repair | 112 | 4 |
| DT 231 | Truck Drivetrains | 70 | 2.5 |
| DT 246 | Heating, Ventilation, and Air Conditioning (HVAC) Testing | 42 | 1.5 |
| <ul style="list-style-type: none"> Selected Communications Course (Choose one) CMST 101 – Foundations of Communication * (CSS 100 – Career Search Strategies .5 credit) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) | | 45 | 3 |
| Total | | 493 | 19 |
| Optional Courses Available (Offered in Spring Semester Only) | | | |
| CDL 100 | CDL Written Preparation | 15 | 1 |
| CDL 105 | CDL Vehicle Inspection | 28 | 1 |
| CDL 110 | CDL Drivers Training | 56 | 2 |

Elective Courses With the instructor’s approval, SCT 100 – Solar Car Team may be substituted for up to 6 credits of course work or taken as an additional elective.

CDL Testing and/or AED Testing – A student may transfer in up to 1 credit for CDL testing and/or AED testing. This will be approved by the Diesel Department Supervisor and the Lake Area Tech Registrar.

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (*) can be transferred directly to the university system and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

Students who select to take transferable communications course CMST 101 or ENGL 101, must also register for CSS 100 – Career Search Strategies for .5 credit. This curriculum is required for all Lake Area Tech graduates and is included in the COMM 101 course but is separate from the university system.