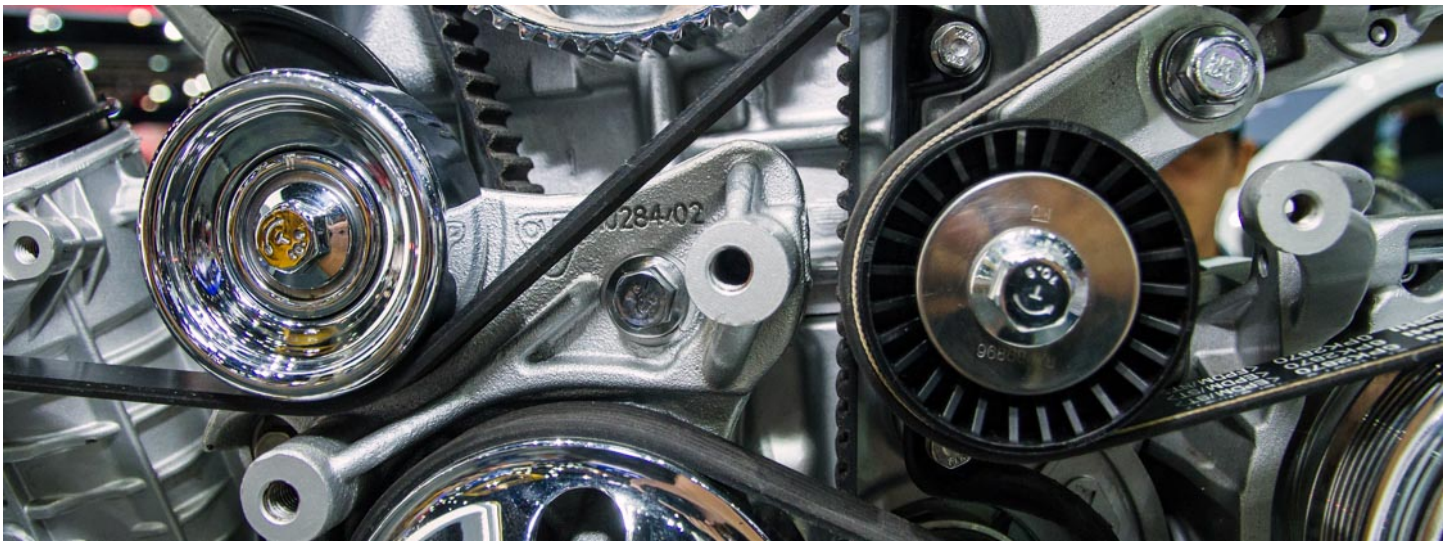
# DIESEL TECHNOLOGY, ASSOCIATE IN APPLIED SCIENCE



College(s): OH

Program Code: 0400

The Associate in Applied Science degree in Diesel Technology equips students with the skills necessary to repair and maintain diesel-powered highway, industrial, and marine vehicles and equipment. Students will gain more detailed instructions in how diesel maintenance techniques and principles are applied in diagnosing malfunctions and prescribing corrective action. The course work highlights diesel service management, critical thinking and problem solving, theory and skills of refrigeration, electronic and mechanical fuel injection, chassis maintenance, vehicle inspection, tune-up, engine overhaul, transmission repair, brake service, handling hazardous waste and preventative maintenance. Students will also be eligible to take the National Institute of Automotive Service Excellence (NAISE) examinations in heavy truck mechanics, Allison Transmission certification, and Hybrid certification.

## Program Requirements

| Code | Title | Hours |
|---|---|---|
| **General Education Coursework** | | |
| ENGLISH 101 | Composition | 3 |
| PHY SCI 102 | General Course Physical Science | 3 |
| PHY SCI 112 | General Course II Physical Science | 4 |
| Select one of the following: | | 3 |
| AFRO AM 101 | Introduction to African-American Studies (HD) | |
| HUM 143 | Intro to Latin American/Latino Studies (HD) | |
| HUM 215 | The Art and Philosophy of the African Continent (HD) | |
| GEOG 101 | World Geography | 3 |
| or ECON 201 | Principles Of Economics I | |
| **Required Program Core** | | |
| MATH 107 | Math for Technicians I | 4 |
| 330TRNS 111 | Introduction to Diesel Technology | 3 |
| 330TRNS 112 | Diesel Electrical Systems I | 3 |
| 330TRNS 113 | Introduction to Diesel Engine Construction | 3 |
| 330TRNS 114 | Diesel Engine Construction I | 3 |
| 330TRNS 115 | Suspension and Steering | 3 |
| 330TRNS 116 | Diesel Brakes | 3 |
| 330TRNS 209 | Diesel Electrical Systems II | 3 |
| 330TRNS 211 | Diesel Preventive Maintenance | 3 |
| 330TRNS 213 | Diesel Engine Construction II | 3 |
| 330TRNS 214 | Emission Controls | 3 |
| 330TRNS 215 | Diesel Engine Performance | 3 |
| 330TRNS 216 | Heavy Duty Drives I (Manual) | 3 |
| 330TRNS 217 | Heavy Duty Drives II (Automatic) | 3 |
| 330TRNS 218 | Heating and Air Conditioning | 3 |
| 330TRNS 219 | Hydraulic Systems | 4 |
| 330TRNS 220 | Advanced Diagnostics | 4 |
| **Total Hours** | | **70** |

At least one course must meet the Human Diversity (HD) requirement.

## Pathway

This is an **example** course sequence for students interested in Diesel Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science Degree (AAS) in Diesel Technology. One course will satisfy the Human Diversity (HD) requirement.

## Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

| Semester 1 | | Hours |
|---|---|---|
| MATH 107 | Math for Technicians I [1] | 5 |
| 330TRNS 111 | Introduction to Diesel Technology | 3 |
| 330TRNS 113 | Introduction to Diesel Engine Construction | 3 |
| | **Hours** | **11** |
| **Semester 2** | | |
| 330TRNS 112 | Diesel Electrical Systems I | 3 |
| 330TRNS 114 | Diesel Engine Construction I | 3 |
| 330TRNS 115 | Suspension and Steering | 3 |
| | **Hours** | **9** |
| **Semester 3** | | |
| Social and Behavioral Sciences course [1,2] | | 3 |
| PHY SCI 102 | General Course Physical Science [1] | 3 |
| 330TRNS 116 | Diesel Brakes | 3 |
| 330TRNS 209 | Diesel Electrical Systems II | 3 |
| | **Hours** | **12** |
| **Semester 4** | | |
| 330TRNS 211 | Diesel Preventive Maintenance | 3 |
| 330TRNS 213 | Diesel Engine Construction II | 3 |
| 330TRNS 214 | Emission Controls | 3 |
| | **Hours** | **9** |
| **Semester 5** | | |
| 330TRNS 215 | Diesel Engine Performance | 3 |
| 330TRNS 216 | Heavy Duty Drives I (Manual) | 3 |
| 330TRNS 218 | Heating and Air Conditioning | 3 |
| | **Hours** | **9** |
| **Semester 6** | | |
| ENGLISH 101 | Composition [1] | 3 |
| 330TRNS 217 | Heavy Duty Drives II (Automatic) | 3 |
| 330TRNS 219 | Hydraulic Systems | 4 |
| 330TRNS 220 | Advanced Diagnostics | 4 |
| PHY SCI 112 | General Course II Physical Science | 4 |
| Fine Arts & Humanities course [1,2] | | 3 |
| | **Hours** | **21** |
| | **Total Hours** | **71** |

[1] General Education course
[2] One course must satisfy the Human Diversity (HD) requirement

Choose your courses with your College Advisor.

# Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

# Bus and Truck Mechanics and Diesel Engine Specialists

## Job Description

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.

## Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

### Annual Wages

| | |
|---|---|
| **Entry-Level 10th Percentile** | $45,923 |
| **Median 50th Percentile** | $66,693 |
| **Senior-Level 90th Percentile** | $102,350 |

### Hourly Wages

| | |
|---|---|
| **Entry-Level 10th Percentile** | $22 |
| **Median 50th Percentile** | $32 |
| **Senior-Level 90th Percentile** | $49 |

## Annual Job Openings

371 annual openings in Cook County

## National Education Attainment

Here, you can see the level of education that people in this career complete.

| Degree Program | % of Jobs |
|---|---|
| **A high school diploma or less** | 37.89% |
| **A certificate** | 39.49% |
| **Some college** | 21.94% |
| **An Associate degree** | 0.67% |
| **A Bachelor's degree** | 0.00% |
| **A Master's or Professional degree** | 0.00% |
| **A Doctoral degree or more** | 0.00% |

0.00% continue their education beyond an associate degree