

Coordinating Commission for Postsecondary Education Review of Existing Instructional Programs

Institution: Central Community College **Program:** Diesel Technology

I certify the following:

- the information provided regarding this program is accurate
- the above named institution has in place a procedure for reviewing instructional programs
- such review took place and was presented to the institution's governing board on **May 16, 2024 PENDING**
- the governing board's action was: **Approved PENDING**

Signed: _____ (Date)
(Chief Academic Officer or designated representative)

Evidence of Demand and Efficiency

	18-19	19-20	20-21	21-22	22-23	5 yr avg*	
Student Credit Hours (SCH)	1695	1836	1607	1370	1651	1632	
Faculty Full-time Equivalency (FTE)	6.39	6.24	5.91	5.62	5.54	5.94	
SCH/Faculty FTE	265.26	294.23	271.91	243.77	298.01	274.74	
Number of Degrees and Awards	AAS	17	21	29	20	21	21.6
	Diploma	26	26	28	21	27	25.6
	Certificate	98	104	111	84	107	100.8
	Total Awards	141	151	168	125	155	148.0
<i>(list degrees/ awards separately)</i>	# of Unduplicated Graduates	62	62	59	52	59	58.8

*By term analysis combined to conduct an annual review. Numbers reported reflect 3 negotiated contract periods (FA17-SU20, FA20-SU22, FA22-SU25). Numbers for 22-23 FTE reflect updated tracking method for part-time instructors.

Evidence of Need (provide a detailed explanation below or attach documentation)

See attached.

Justification if the program is below either of the CCPE thresholds—complete page 2

For CCPE use: reviewer/date

Justification if the program is below CCPE thresholds—check one or more boxes and provide a detailed explanation or attach a document

Program is critical to the role and mission of the institution (detailed explanation).

Program contains courses supporting general education or other programs (detailed explanation).

Interdisciplinary program (providing the program meets the requirements set in the existing policy for interdisciplinary programs) (explain).

Student or employer demand, or demand for intellectual property is high and external funding would be jeopardized by discontinuing the program (explain).

Program provides unique access to an underserved population or geographical area (explain).

Program meets a unique need in the region, state, or nation (explain).

Central Community College's Diesel Technology program serves an essential need in the local workforce. Diesel Technicians are in high demand in our service area as well as the state.

Program is newly approved within the last five years (no additional justification needed).

Other (detailed explanation).

Please note in the data Central's Diesel Technology program had a small dip in enrollment in the year immediately following the pandemic. The program has since rebounded in enrollment and shows signs of continuing to be an attractive program for students that also benefits Central's service area and Nebraskans by preparing skilled diesel technicians.



Diesel Technology

Coordinating Commission Seven-Year Review 2024

Information in this report reviewed and recommended to cabinet:

Central Community College Educational Services, 04/25/2024

Recommended continuation of programs without monitoring:

Central Community College College Cabinet, 05/02/2024
Central Community College Board of Governors, **05/16/2024** **PENDING**

Jeff Bexten – Program Faculty
Justin Curtis – Program Faculty
Josh Leth – Program Faculty
Randy Manning – Program Faculty
Raece Paulsen – Program Faculty

Alison Feeney, M.A.E. – Associate Dean of Instruction, Career & Technical Sciences
Brian Hoffman, M.A. – Associate Dean of Instruction, Career & Technical Sciences
John McKinney, M.Div. – Associate Dean of Instruction, Career & Technical Sciences

Nate Allen, Ed.D. – Dean of Instruction, Career & Technical Sciences
Christopher Waddle, J.D. – Division Vice President, Career & Technical Sciences

Diesel Technology

Program Review Summary – Dr. Nate Allen

The Diesel Technology (DSLTL) program continues to be a successful program within the Career and Technical Sciences division at Central Community College. The CCC DSLTL program offers a vital educational opportunity for those students seeking to enter the Diesel Technology industry. CCC currently offers an Associate of Applied Science (AAS) degree in Diesel Technology with specializations in: Agriculture and Construction, On-Highway Truck, Diesel Power Generation serving our 25-county service area with five full-time instructors located on the Hastings campus. Additionally, a diploma in Diesel Technology and five certificates can be awarded in Basic Mechanics, Diesel Electrical, Engine Performance, Hydraulics, and Truck Systems. The awards within the DSLTL program are stable with a five-year average of 126 total awards received by our graduates. Over the past five years, the number of DSLTL AAS degrees awarded annually have ranged from 17-29 with a five-year average of 21.6.

With the implementation of new software for the larger pieces of equipment and engines in the Diesel Technology coursework, students are prepared to work on projects in the classroom that are relative to what industry is expecting. The incorporation of newer pieces of equipment like a John Deere Track Type tractor, Case Mid-Frame Magnum tractor, and a MACK semi-truck allows students to stay current with technology and sustainability in the Diesel industry.

The faculty work closely with local industry to ensure a competitive pay wage for their graduates compared to other parts of the state and national averages. Internships and partnerships with these businesses allow us to work with a variety of dealerships and types of equipment. The program appreciates the active engagement of their advisory committee members who provide recommendations that are relevant and timely to current industry needs. The demand is high for our Diesel Technology graduates and the program is striving to continue growing through increased interest in the program, updated equipment, outstanding facilities, competent instructors, marketing and a variety of camps, career fairs and workshops along with industry support.

The DSLTL faculty host an annual Diesel Days in the fall semester which consistently attracts over 100 students to the Hastings Campus to promote careers in Diesel Technology. This day also connects current and prospective students with employers to explore future careers in the industry with high participation of industry hosting booths on campus. Additionally, summer 2023 was the kickoff for the Titan Diesel Camp which attracts 40+ students to campus for an intense two days to more deeply engage with careers in Diesel Technology.

Career and Technical Sciences leadership recommends continuation of the program.

Program: Diesel Technology (DLST)

I. College Mission: Central Community College maximizes student and community success.

II. College Vision: To be the best choice in our service area for:

Facilitating students' achievement of lifelong educational goals of a quality education provided by exceptional faculty and staff and leading to profitable employment options, successful credit transfer and continued learning. This can be done through individualized attention and valued as a positive return on investment.

Developing a skilled workforce through work-based learning partnerships and entrepreneurship opportunities while utilizing modern facilities, technologies and alumni advocates.

Advancing communities through public and private partnerships to create future civic contributors, economic developers and sustainability leaders.

III. Program Mission Statement: To maximize student and community success in Diesel Technology.

IV. Program Vision Statement: To be the best choice for prospective Diesel Technicians.

V. Program/Discipline Environmental Scan (Program Need):

A. Industry or college need:

The Central Community College (CCC) Diesel Technology (DSLST) program offers a vital educational opportunity for those students seeking to enter the Diesel technology industry. CCC currently offers an Associate of Applied Science degree in Diesel Technology, with specializations in three distinct areas: 1. Diesel Agriculture and Construction Specialization, 2. Diesel On-Highway Truck Specialization and 3. Diesel Power Generation Specialization. Additionally, a diploma: Diesel Technology and five Certificates focusing on: Diesel Electrical, Engine Performance, Basic Mechanics, Hydraulics, and Truck Systems are offered.

Diesel Technology students are highly thought of and are sought after by industry. The CCC Diesel Technology program is highly regarded and is considered one of the top program in the region if not in the nation.

Lightcast (EMSI) Q4 2023 Data Set

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Report Parameters

2 Occupations

Bus and Truck Mechanics and Diesel Engine Specialists (SOC 49-3031): 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.

Sample of Reported Job Titles: Diesel Mechanic, Trailer Mechanic, Fleet Mechanic, Diesel Technician, Truck Mechanic, Transportation Mechanic, Transit Mechanic, Service Technician, Mechanic, General Repair Mechanic

Farm Equipment Mechanics and Service Technicians (SOC 49-3041): Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems. Excludes Bus and Truck Mechanics and Diesel Engine Specialists (49-3031).

Sample of Reported Job Titles: Farm Equipment Mechanic, Mechanic, Tractor Technician, Tractor Mechanic, Harvester Mechanic, Field Technician, Farm Equipment Technician, Shop Mechanic, Service Technician, Farm Equipment Service Technician

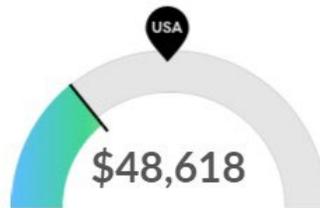
Executive Summary

Aggressive Job Posting Demand Over a Deep Supply of Regional Jobs



Jobs (2023)

Your area is a hotspot for this kind of job. The national average for an area this size is 357* employees, while there are 1,199 here.



Compensation

Earnings are low in your area. The national median salary for your occupations is \$53,408, compared to \$48,618 here.



Job Posting Demand

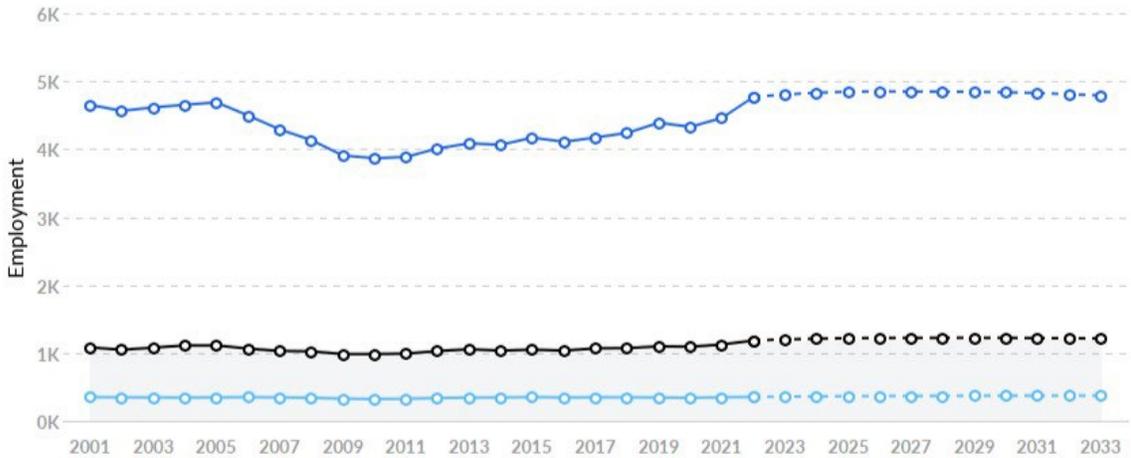
Job posting activity is high in your area. The national average for an area this size is 9* job postings/mo, while there are 15 here.

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Jobs

Regional Employment Is Higher Than the National Average

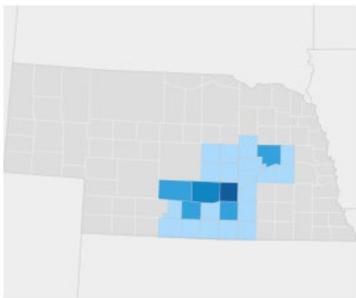
An average area of this size typically has 357* jobs, while there are 1,199 here. This higher than average supply of jobs may make it easier for workers in this field to find employment in your area.



Region	2023 Jobs	2028 Jobs	Change	% Change
● CCC Service Area	1,199	1,223	24	2.0%
● National Average	357	368	11	3.1%
● Nebraska	4,804	4,846	42	0.9%

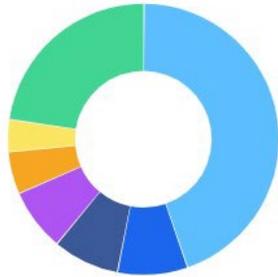
*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Regional Breakdown



County	2023 Jobs
Hall County, NE	224
Buffalo County, NE	167
Dawson County, NE	122
Platte County, NE	111
Adams County, NE	105

Most Jobs are Found in the Machinery, Equipment, and Supplies Merchant Wholesalers Industry Sector

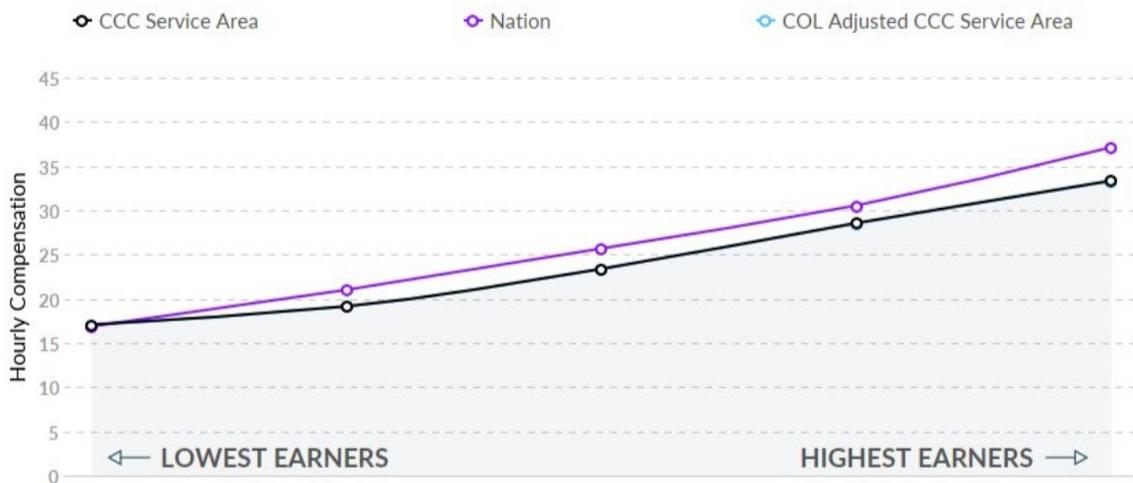


Industry	% of Occupation in Industry (2023)
Machinery, Equipment, and Supplies Merchant Wholesalers	44.6%
Specialized Freight Trucking	8.4%
Automotive Repair and Maintenance	7.9%
General Freight Trucking	7.4%
Local Government, Excluding Education and Hospitals	5.1%
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	3.9%
Other	22.7%

Compensation

Regional Compensation Is 9% Lower Than National Compensation

For your occupations, the 2022 median wage in your area is \$23.37/hr, while the national median wage is \$25.68/hr.



Job Posting Activity



162 Unique Job Postings

The number of unique postings for this job from Jan 2023 to Nov 2023.



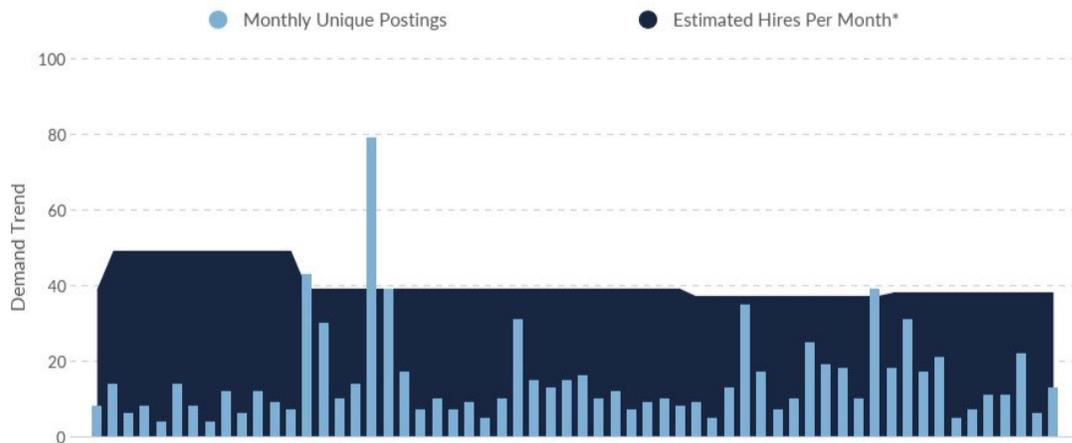
38 Employers Competing

All employers in the region who posted for this job from Jan 2023 to Nov 2023.



36 Day Median Duration

Posting duration is 11 days longer than what's typical in the region.



Occupation	Avg Monthly Postings (Jan 2023 - Nov 2023)	Avg Monthly Hires (Jan 2023 - Nov 2023)
Bus and Truck Mechanics and Diesel Engine Specialists	14	22
Farm Equipment Mechanics and Service Technicians	1	16

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

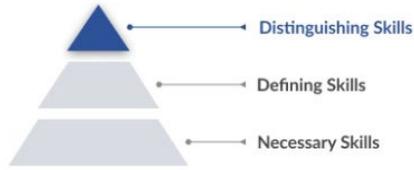
Top Companies	Unique Postings
Penske Logistics	43
Titan Machinery	20
GPAC	14
Ryder	7
TravelCenters of America	7
Penske Automotive Group	6
Bosselman Enterprises	5
FleetPride	4
Job Juncture	4
NMC	4

Top Job Titles	Unique Postings
Diesel Mechanics	38
Diesel Technicians/Mechanics	38
Diesel Mechanic Technicians	24
Diesel Technicians	14
Equipment Service Technician	7
Truck Service Advisors	4
Diesel Service Mechanics	3
Field Technicians	3
Gas Mechanics	3
Mechanical Service Techniciar	3

Top Skills

Top Distinguishing Skills by Demand

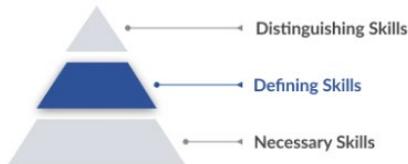
An occupation's Distinguishing Skills are the advanced skills that are called for occasionally. An employee with these skills is likely more specialized and able to differentiate themselves from others in the same role.



Skill	Salary Boosting	Job Postings Requesting
Fuel Systems	✓	21
Trailer Repair And Maintenance	✓	8
Engine Repair	✗	7
Drivetrain	✗	6
DOT (Department Of Transportation) Inspections	✓	5
Alternators	✗	5
Exhaust Systems	✓	5
Welding Equipment	✓	2
Pressure Measurement	✗	1
Vehicle Systems	✗	0

Top Defining Skills by Demand

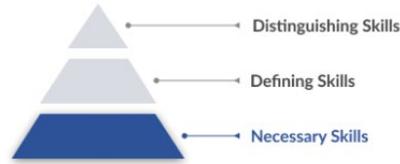
An occupation's Defining Skills represent the day-to-day tasks and responsibilities of the job. An employee needs these skills to qualify for and perform successfully in this occupation.



Skill	Salary Boosting	Job Postings Requesting
Diesel Engines	✗	107
Valid Driver's License	✗	93
Cooling Systems	✗	35
Preventive Maintenance	✗	31
Automotive Service Excellence (ASE) Certification	✗	30
Vehicle Maintenance	✗	30
Equipment Repair	✗	24
Differentials	✓	24
Technical Communication	✗	18
Suspension (Vehicle)	✓	17

Top Necessary Skills by Demand

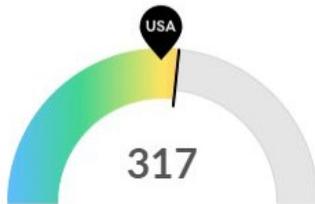
An occupation's Necessary Skills are the specialized skills required for that job and relevant across other similar jobs. An employee needs these skills as building blocks to perform the more complex Defining Skills.



Skill	Salary Boosting	Job Postings Requesting
Diesel Engines	✘	107
Electrical Systems	✘	46
Preventive Maintenance	✘	31
Hand Tools	✘	28
Power Tool Operation	✘	26
Equipment Repair	✘	24
HVAC	✘	22
Changing Oil	✘	16
Hydraulics	✘	15
Commercial Driver's License (CDL)	✘	12

Demographics

Retirement Risk Is High, While Overall Diversity Is Low



Retiring Soon

Retirement risk is high in your area. The national average for an area this size is 288* employees 55 or older, while there are 317 here.



Racial Diversity

Racial diversity is low in your area. The national average for an area this size is 314* racially diverse employees, while there are 78 here.



Gender Diversity

Gender diversity is low in your area. The national average for an area this size is 19* female employees, while there are 12 here.

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown



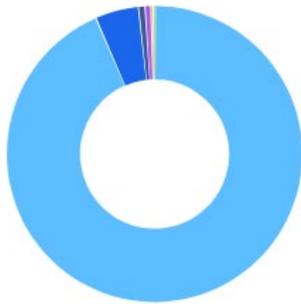
	% of Jobs	Jobs
14-18	1.5%	18
19-24	9.8%	116
25-34	20.6%	244
35-44	20.6%	243
45-54	20.8%	246
55-64	20.4%	241
65+	6.4%	76

Occupation Gender Breakdown



	% of Jobs	Jobs
Males	99.0%	1,171
Females	1.0%	12

Occupation Race/Ethnicity Breakdown



	% of Jobs	Jobs
White	93.4%	1,106
Hispanic or Latino	4.7%	56
Black or African American	0.7%	8
Two or More Races	0.6%	7
Asian	0.3%	3
American Indian or Alaska Native	0.2%	3
Native Hawaiian or Other Pacific Islander	0.0%	0

Graduate Pipeline



1 Program

Of the programs that can train for this job, 1 has produced completions in the last 5 years.



125 Completions (2022)

The completions from all regional institutions for all degree types.



116 Openings (2022)

The average number of openings for an occupation in the region is 29.

CIP Code	Top Programs	Completions (2022)
47.0605	Diesel Mechanics Technology/Technician	125

Top Schools	Completions (2022)
Central Community College	125

2024 Summary of Lightcast Q4 2023 Data Set:

For our region, demand for heavy equipment and truck technicians is growing higher. We continue to be above national average in retiree aged technicians.

B. Supporting Data

a. Awards

Degree/ Credential Awarded	18-19	19-20	20-21	21-22	22-23	5-yr avg
AAS	17	21	29	20	21	21.6
Diploma	26	26	28	21	27	25.6
Certificate	98	104	111	84	107	100.8
Total Awards	141	151	168	125	155	148.0
# of Graduates	62	62	59	52	59	58.8

2024 Summary of Awards (2022-23 data):

With 155 awards presented in 2022-23, the program is above the five-year average of 148.0 with each award category slightly under the five-year average. Yet the number of graduates has remained consistent and could be reflected in more part-time students enrolling.

b. Student Credit Hours Produced per Faculty FTE

	18-19	19-20	20-21	21-22	22-23	5 yr avg*
Student Credit Hours (SCH)	1695	1836	1607	1370	1651	1632
Faculty Full-time Equivalency (FTE)	6.39	6.24	5.91	5.62	5.54	5.94
SCH/Faculty FTE	265.26	294.23	271.91	243.77	298.01	274.74

Source: Program Stats by Alpha and Instructor-Student FTE reports.

*By term analysis combined to conduct an annual review. Numbers reported reflect 3 negotiated contract periods (FA17-SU20, FA20-SU22, FA22-SU25). Numbers for 22-23 FTE reflect updated tracking method for part-time instructors.

2024 Summary of the Student Credit Hours per Faculty FTE (2022-23 data):

Program faculty load is within the recommended parameters. Student credit hours have increased in the last two years resulting in the ratio of student credits to faculty full-time equivalency just under 300.

2024 Summary Statement:

The DSLT program remains strong. Interest is high, demand is high and the program is striving to continue growth through updated equipment, facility space, competent instruction, and industry support.