



DEPARTMENT OF
HIGHER EDUCATION &
WORKFORCE DEVELOPMENT

New Program Report

Date Submitted:

04/20/2023

Institution

Ranken Technical College

Site Information

Implementation Date:

8/28/2023 12:00:00 AM

Added Site(s):

Selected Site(s):

Ranken Southeast, 1205 Corporation Lane, Perryville, MO, 63775

Ranken West, 755 Parr Road, Wentzville, MO, 63385

CIP Information

CIP Code:

470605

CIP Description:

A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as automobiles, buses, ships, trucks, railroad locomotives, and construction equipment; as well as stationary diesel engines in electrical generators and related equipment.

CIP Program Title:

Diesel Mechanics Technology/Technician

Institution Program Title:

Diesel Technology

Degree Level/Type

Degree Level:

Associate Degree

Degree Type:

Associate of Science

Options Added:

Collaborative Program:

N

Mode of Delivery

Current Mode of Delivery

Hybrid

Student Preparation

Special Admissions Procedure or Student Qualifications required:

See attachment



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Specific Population Characteristics to be served:

See attachment

Faculty Characteristics

Special Requirements for Assignment of Teaching for this Degree/Certificate:

See attachment

Estimate Percentage of Credit Hours that will be assigned to full time faculty:

See attachment

Expectations for professional activities, special student contact, teaching/learning innovation:

See attachment

Student Enrollment Projections Year One-Five

Year 1	Full Time: 1	Part Time: 0	
Year 2	Full Time: 1	Part Time: 0	
Year 3	Full Time: 1	Part Time: 0	Number of Graduates: 1
Year 4	Full Time: 1	Part Time: 0	
Year 1	Full Time: 1	Part Time: 0	
Year 2	Full Time: 1	Part Time: 0	
Year 3	Full Time: 1	Part Time: 0	Number of Graduates: 1
Year 4	Full Time: 1	Part Time: 0	
Year 5	Full Time: 1	Part Time: 1	Number of Graduates: 0

Percentage Statement:

n/a

Program Accreditation

Institutional Plans for Accreditation:

See attachment

Program Structure

Total Credits:

87

Residency Requirements:

Minimum of 44 credit hours must be earned at Ranken Technical College.

General Education Total Credits:

39

Major Requirements Total Credits:

48



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Course(s) Added

COURSE NUMBER	CREDITS	COURSE TITLE
DSL 1005	12	Medium-Heavy Duty Truck Repair Foundations
DSL 1205	12	Medium-Heavy Duty Truck Align, Elect, & HVAC Systems
DSL 2105	12	Medium-Heavy Duty Truck Hydraulic and Geartrain Systems
DSL 2205	12	Medium-Heavy Duty Truck Engines

Free Elective Credits:

0

Internship or other Capstone Experience:

N/A

Assurances

I certify that the program will not unnecessarily duplicate an existing program of another Missouri institution in accordance with 6 CSR 10-4.010, subsection (9)(C) Submission of Academic Information, Data and New Programs.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

Contact Information

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From: Shannon C. Brueggemann <scbrueggemann@ranken.edu>

Sent: Thursday, March 9, 2023 9:28 PM

Cc: Shawn D. Ray <sdray@ranken.edu>; Brien J. Dover <bjdover@ranken.edu>; David Cadle <dacadle@ranken.edu>; Julia M. Bradshaw <jmbradshaw@ranken.edu>; Charles G. Corrigan <cgcorrigan@ranken.edu>

Subject: Diesel Technology Changes for Fall 2023

Importance: High

The Education Committee recently approved the following changes to the Diesel Technology (CTT/AT/AS program) in both Wentzville and Perryville locations effective Fall 2023. (See Attachment)

Wentzville:

- DAY: Program has been changed from a 5-semester program to a 4-semester program
 - Decrease cost of education – Aligns to Strategic Plan Goal to Increase Affordability
 - Decreases time to graduation
 - NOTE: Fall 2023 all students must enroll under AT/AS. Student may transition to CTT in January 2024.
 - Students still receive tool issues in 1st and 2nd semester.
 - 2nd-4th Semesters – Students rotate between 8-week seated courses and 8-week internship courses
- EVENING: Program has been changed from a 5-semester program to a 4-semester program. (Internships are eliminated)
 - Decrease cost of education – Aligns to Strategic Plan Goal to Increase Affordability
 - Decreases time to graduation
 - Allows working adults to keep full-time job with benefits while they get training needed to enter the diesel repair industry.
 - Students use the tool voucher to acquire tools in their last semester.
 - Seated courses align with the day courses (minus the internships)

Perryville:

- DAY/EVENING: Program remains 4 semesters
 - Only change is the order course outcomes are taught among the four semester.
 - No changes to overall program learning outcomes.
 - Completely aligns with the Wentzville Evening program.

Books & Tools forms are in the process of getting revised under the new Course Codes.

Please let me know if you have questions or concerns.

Shannon Brueggemann
Vice President for Education

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RANKEN TECHNICAL COLLEGE

Curricular Offering Revision Request Form

Division/Department: DPT Division/Department Chair: Shawn Ray/Brien Dover 3-6-23 Date

PROGRAM CHANGE	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Revision	<input type="checkbox"/> Deletion
Current or New Program Name: <u>DSL/DPT</u>		Division: <u>Automotive</u>	
Revision: <input type="checkbox"/> Course Sequence <input type="checkbox"/> Program Outcomes <input checked="" type="checkbox"/> Other – Name Change		<input checked="" type="checkbox"/> Associate of Technology <input checked="" type="checkbox"/> Associate of Science <input checked="" type="checkbox"/> Certificate <input type="checkbox"/> Bachelor of Science	

COURSE CHANGE	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Revision	<input type="checkbox"/> Deletion
Current or New Course Name/Code: <u>Changing almost all courses to adjust to a 4-semester program</u>			Credits:
Previous Course Name/Code:			Credits:
Revision: <input checked="" type="checkbox"/> Prerequisites <input type="checkbox"/> Course Outcomes <input type="checkbox"/> Lecture, Lab, Contact or Credit Hours <input type="checkbox"/> Provide Online Option <input type="checkbox"/> Other _____		<input checked="" type="checkbox"/> Associate of Technology <input checked="" type="checkbox"/> Associate of Science <input checked="" type="checkbox"/> Certificate <input type="checkbox"/> Bachelor of Science	

Documentation: See reverse side for required documentation.

Explanation OR attach curriculum documentation: (Indicate all curriculum changes on supporting documentation in red font.)

__In efforts to reduce the cost of education and increase enrollment, especially for the Wentzville evening program, this proposal changes the current Diesel Professional Technician program from 5-semesters down to 4-semesters and allows Perryville and Wentzville evening to align with a 4-semester Wentzville Day program. Industry was unanimously in favor of this change. The second semester of the 5-semester program will be absorbed into the remaining four semesters. To improve 1st year retention, the 1st semester DSL course will be a 16 weeks instead of the previous two 8-week courses. There will be no change in program level outcomes

For Education Office Use Only:

Reviewed by: <u>Julia Bradshaw</u> Dean/Instructional Coordinator	Advisory Board Approval Required: yes or no
Ed Committee Approval Date: <u>3-6-23</u>	Advisory Board Approval Date: <u>11-3-22</u>
	Semester to be implemented: <u>Fall 2023</u>

Diesel Technology (Change Starting Fall 2023)

CTT/AT/AS

Ranken West Location (EVENING ONLY)

Ranken Southeast Location

Semester	Course	Credits	Prereq
1 st Semester	DSL 1005 Medium-Heavy Duty Truck Repair Foundations	12	
2 nd Semester	DSL 1205 Medium-Heavy Duty Truck Alignment, Electrical, and HVAC Systems	12	DSL 1005
3 rd Semester	DSL 2105 Medium-Heavy Duty Truck Hydraulic and Geartrain Systems	12	DSL 1005
4 th Semester	DSL 2205 Medium-Heavy Duty Truck Engines	12	DSL 1005
	Total Technical Credits	48	

Notes:

- Changes from previous Perryville format:
 - Still 4 semesters
 - Still meet 4hrs/day, 5 days/week (full semester)
 - Change in order course level outcomes.
 - Program Level Learning Outcomes remain the same.
- Changes from previous Wentzville format in the EVENING (only):
 - Changes from 5 semesters to now a 4-semester program.
 - No formal internship courses for the evening program
 - Courses will not run 5:05pm – 9:55pm, Monday-Thursday evenings.
 - The previous 2nd semester learning outcomes were distributed among the remaining four courses.
 - Program Level Learning Outcomes remain the same.
- Students may take the program as a CTT/AT/AS program.

SEMESTER 1

DSL 1005 Medium-Heavy Duty Truck Repair Foundations

Students will learn light diesel repair, light fabrication, scan tool operations and connections, brake diagnostic and repair, clutch adjustments, shop safety and proper environmental policies for EPA and OSHA, how to correctly measure components, proper supporting of vehicle, how to perform preventative maintenance inspections, tire change procedures used in the diesel repair industry, and diagnose and repair suspension components. Twelve Credits.

SEMESTER 2

DSL 1205 Medium-Heavy Duty Truck Alignment, Electrical, and HVAC Systems (12 credits)

Students will learn the basics of electrical and how to use a digital voltmeter correctly. Students will diagnose and repair electrical systems for engines, brakes, cab, and transmissions. Students will also diagnose and repair A/C systems, heater systems, and alignments. Twelve credit hours

SEMESTER 3

DSL 2105 Medium-Heavy Duty Truck Hydraulic and Geartrain Systems

Students will learn how to diagnose, inspect, and repair drivetrain components in the diesel repair industry. Students will perform repair and diagnostics of manual transmissions, automatic transmissions, and differentials. Students will learn hydraulic systems from steering to truck/equipment accessories. Twelve credit hours.

SEMESTER 4

DSL 2205 Medium-Heavy Duty Truck Engines

Students will learn how to diagnose, inspect, and repair engines in the diesel repair industry, diagnose and repair fuel systems, and repair and diagnose aftertreatment systems. Twelve Credit Hours

Diesel Technology (Change Starting Fall 2023)

CTT/AT/AS

Ranken West Location (DAY ONLY)

Semester	Course	Credits	Prereq
1 st Semester	DSL 1005 Medium-Heavy Duty Truck Repair Foundations	12	
2 nd Semester	DPT 1205 Medium-Heavy Duty Truck Alignment, Electrical, and HVAC Systems DPT 1210 Professional Internship I (or DPT 1211 Diesel Line)	10 5	DSL 1005 DSL 1005
3 rd Semester	DPT 2105 Medium-Heavy Duty Truck Hydraulic and Geartrain Systems DPT 2110 Professional Internship II (or DPT 2111 Diesel Line)	10 5	DSL 1005 DSL 1005
4 th Semester	DPT 2205 Medium-Heavy Duty Truck Engines DPT 2210 Professional Internship III (or DPT 2211 Diesel Line)	10 5	DSL 1005 DSL 1005
	Total Technical Credit	57	

Notes:

- Changes from previous Wentzville format:
 - Changes from 5 semesters to now a 4-semester program.
 - Formal Internships remain.
 - DSL 1005 will remain to run 4hrs/day, 5 days/week
 - DPT 1205/2105/2205 will run 6.5hrs/day, 5 days/week
 - The previous 2nd semester learning outcomes were distributed among the remaining four courses.
 - Program Level Learning Outcomes remain the same.
- Students starting in Fall 2023, must start in AT/AS format. After January 2024, students may change to the CTT.

SEMESTER 1

DSL 1005 Diesel Technology Foundations

Students will learn light diesel repair, light fabrication, scan tool operations and connections, brake diagnostic and repair, clutch adjustments, shop safety and proper environmental policies for EPA and OSHA, how to correctly measure components, proper supporting of vehicle, how to perform preventative maintenance inspections, tire change procedures used in the diesel repair industry, and diagnose and repair suspension components. Twelve Credits

SEMESTER 2

DPT 1205 Medium-Heavy Duty Truck Alignment, Electrical, and HVAC Systems (10 credits)

Students will learn the basics of electrical and how to use a digital voltmeter correctly. Students will diagnose and repair electrical systems for engines, brakes, cab, and transmissions. Students will also diagnose and repair A/C systems, heater systems, and alignments. Ten credit hours

SEMESTER 3

DPT 2105 Medium-Heavy Duty Truck Hydraulic and Geartrain Systems

Students will learn how to diagnose, inspect, and repair drivetrain components in the diesel repair industry. Students will perform repair and diagnostics of manual transmissions, automatic transmissions, and differentials. Students will learn hydraulic systems from steering to truck/equipment accessories. Ten credit hours.

SEMESTER 4

DPT 2205 Medium-Heavy Duty Truck Engines

Students will learn how to diagnose, inspect, and repair engines in the diesel repair industry, diagnose and repair fuel systems, and repair and diagnose aftertreatment systems. Ten Credit Hours

DPT 1210/2110/2210 Professional Internships

Students will participate in a work study in a service environment during their second, third, fourth, and fifth semesters. They will apply and practice skills correlated with the Automotive Service Excellence (ASE) Education Foundation task list. Five credit hours

NO CHANGES to CIP code, degree/certificate offerings, or major code.

CHANGES to concentration and program length are described below and highlighted.

Diesel Technology Program Changes

Program Division: Automotive

Same CIP code: 470605

Campus/Section	Current Program (Effective Fall 2020 term, August 2020)					New Program (Effective Summer 2022 term, May 2023)				
	Major Title	Concentration Title	Degree Codes	Terms Required	Program Length	Major Title	Conc Title	Degree Codes	Terms Required	Program Length
WTZ morning (section 30)	Diesel Technology	Professional Technician	CT, AT, AS	5	80 weeks	Diesel Technology	None	CT, AT, AS	4	64 weeks
WTZ afternoon (section 31)	Diesel Technology	Professional Technician	CT, AT, AS	5	80 weeks	Diesel Technology	None	CT, AT, AS	4	64 weeks
WTZ evening (section 32)	Diesel Technology	Professional Technician	CT, AT, AS	5	80 weeks	Diesel Technology	None	CT, AT, AS	4	64 weeks
PRY (section 20)	Diesel Technology	None	CT, AT, AS	4	64 weeks	Diesel Technology	None	CT, AT, AS	4	64 weeks



**DIESEL TECHNOLOGY
DEGREE CHOICES: CT, AT, AS
CAMPUS: WENTZVILLE MORNING & AFTERNOON
2023-24 CURRICULUM GUIDE**

		<u>Semester Hours</u>	<u>Prerequisites</u>
<u>1ST SEMESTER</u>			
DSL 1005	Medium-Heavy Duty Truck Repair Foundations	12	
WEG DS10	Work Ethic Grade course	0	
General Education classes as needed per degree choice (see below)			
<u>2ND / 3RD / 4TH SEMESTER</u>			
DPT 1205	Medium-Heavy Duty Truck Align, Elect, & HVAC Systems	10	DSL1005
DPT 1210	Professional Internship I (or DPT 1211, Diesel Line)	5	DSL1005
WEG DP12	Work Ethic Grade course	0	
General Education classes as needed per degree choice (see below)			
<u>2ND / 3RD / 4TH SEMESTER</u>			
DPT 2105	Medium-Heavy Duty Truck Hydraulic and Geartrain Systems	10	DSL1005
DPT 2110	Professional Internship II (or DPT 2111, Diesel Line)	5	DSL1005
WEG DP21	Work Ethic Grade course	0	
General Education classes as needed per degree choice (see below)			
<u>2ND / 3RD / 4TH SEMESTER</u>			
DPT 2205	Medium-Heavy Duty Truck Engines	10	DSL1005
DPT 2210	Professional Internship III (or DPT 2211 Diesel Line)	5	DSL1005
WEG DP22	Work Ethic Grade course	0	
General Education classes as needed per degree choice (see below)			

General Education Requirements	Hours	Certificate of Technology (CT)	Associate of Technology (AT)	Associate of Science (AS)	Prerequisite /Corequisite
Communications	3	COM 1080 Technical Communications	COM 1105 Oral Communications	COM 1105	
Business & Information Technology	3	BUS 1000 Career Success Skills	BUS 1000	BUS 1000	
	3		MNG 1204 Intro to Business & Mgmt	MNG 1204	ENG 1099 (coreq)
English	3		ENG 1099 Foundations of Composition	ENG 1099	
	3		ENG 1101 College Composition I	ENG 1101	ENG 1099
	3		ENG 2102 College Composition II	ENG 2102	ENG 1101
Social Sciences	3		SOC 1206 Principles of Sociology or PSY 1206 Introduction to Psychology	SOC 1206 or PSY 1206	ENG 1099 (coreq)
Mathematics & Science	3		MTH 1110 Elementary Algebra	MTH 1110	
	3		MTH 1111 Intermediate Algebra	MTH 1111	MTH 1110
	3			MTH 2112 College Algebra	MTH 1111
	3			MTH 2220 Trigonometry	MTH 2112
	3			PHY 2230 College Physics	MTH 2220
	3			MTH 2240 Survey of Calculus	MTH 2112

Rev 4/19/2023

Interoffice use only: Major = DSELT; Concentration = none; major hours = 57; Degree Audit Code: DSELT

NOTE 1: CTT DEGREE OPTION FOR THIS PROGRAM AVAILABLE EFFECTIVE SPRING 2023 TERM (JANUARY 2024)

NOTE 2: WTZ EVENING PROGRAM (DAY DIVISION, SECTION 32) FOLLOWS SAME AS PRY PROGRAM.



**DIESEL TECHNOLOGY
DEGREE CHOICES: CT, AT, AS
CAMPUS: WENTZVILLE EVENING & PERRYVILLE
2023-24 CURRICULUM GUIDE**

		<u>Semester Hours</u>	<u>Prerequisites</u>
<u>1ST SEMESTER</u>			
DSL 1005	Medium-Heavy Duty Truck Repair Foundations	12	
WEG DS10	Work Ethic Grade course	0	
General Education classes as needed per degree choice			
<u>2ND / 3rd / 4th SEMESTER</u>			
DSL 1205	Medium-Heavy Duty Truck Align, Elect, & HVAC Systems	12	DSL1005
WEG DS12	Work Ethic Grade course	0	
General Education classes as needed per degree choice			
<u>2ND / 3rd / 4th SEMESTER</u>			
DSL 2105	Medium-Heavy Duty Truck Hydraulic and Geartrain Systems	12	DSL1005
WEG DS21	Work Ethic Grade course	0	
General Education classes as needed per degree choice			
<u>2ND / 3rd / 4th SEMESTER</u>			
DSL 2205	Medium-Heavy Duty Truck Engines	12	DSL1005
WEG DS22	Work Ethic Grade course	0	
General Education classes as needed per degree choice			

General Education Requirements	Hours	Certificate of Technology (CT)	Associate of Technology (AT)	Associate of Science (AS)	Prerequisite /Corequisite
Communications	3	COM 1080 Technical Communications	COM 1105 Oral Communications	COM 1105	
Business & Information Technology	3	BUS 1000 Career Success Skills	BUS 1000	BUS 1000	
	3		MNG 1204 Intro to Business & Mgmt	MNG 1204	ENG 1099 (coreq)
English	3		ENG 1099 Foundations of Composition	ENG 1099	
	3		ENG 1101 College Composition I	ENG 1101	ENG 1099
	3		ENG 2102 College Composition II	ENG 2102	ENG 1101
Social Sciences	3		SOC 1206 Principles of Sociology or PSY 1206 Introduction to Psychology	SOC 1206 or PSY 1206	ENG 1099 (coreq)
Mathematics & Science	3		MTH 1110 Elementary Algebra	MTH 1110	
	3		MTH 1111 Intermediate Algebra	MTH 1111	MTH 1110
	3			MTH 2112 College Algebra	MTH 1111
	3			MTH 2220 Trigonometry	MTH 2112
	3			PHY 2230 College Physics	MTH 2220
	3			MTH 2240 Survey of Calculus	MTH 2112

Rev 4/19/2023

Interoffice use only: Major = DSELT; Concentration = none; major hours = 48; Degree Audit Code: DSELT

NOTE 1: WTZ EVENING IS DAYTIME DIVISION WITH SECTION 32 (LATE AFTERNOON START), SAME AS PRY.

NOTE 2: WTZ MORNING (SECTION 30) & AFTERNOON (SECTION 31) FOLLOW DIFFERENT REQUIREMENTS.