Diesel Technology

Our Diesel Technology programs offer a unique, hands-on technology education recognized by industry leaders as one of the nation's leading diesel programs. Our curriculum is relevant to students' lives and careers, valuable in terms of content and competencies and connected to the needs of industry. It strives to provide an environment that fosters excellence in learning and one that nurtures discovery of knowledge for advancement, academic excellence in the classroom , and personal growth through collaboration and teamwork.

Mission Statement

The mission of the Diesel Technology program is to provide students with the working knowledge, technological proficiency, and professional skills necessary to be successful in a variety of careers related to diesel technology. Our faculty instructors and cutting-edge Diesel Technology Center provide students a unique opportunity to gain hands-on and technology-driven educational experiences that reflect industry standards and expectations.

Learning Outcomes for Diesel Technology, BS

Upon completion of this program, students will be able to, in accordance with industry standards:

- Work within current industry safety guidelines and standards to ensure a safe working environment.

- Effectively utilize written and verbal communication skills and industry knowledge and resources (e.g., software, manuals).

- Apply advanced diagnostic and repair procedures for electrical/electronic systems.

- Apply advanced diagnostic and repair procedures for hydraulics/hydrostatics systems.

- Apply advanced diagnostic and repair procedures for power trains systems.

- Apply advanced diagnostic and repair procedures for diesel engine systems.

- Apply advanced diagnostic and repair procedures for air conditioning/heating systems.

Learning Outcomes for Diesel Technology Field Maintenance, BS

Upon completion of this program, students will be able to, in accordance with industry standards:

- Work within current industry safety guidelines and standards to ensure a safe working environment.

- Effectively utilize written and verbal communication skills and industry knowledge and resources (e.g., software, manuals).

- Apply advanced diagnostic and repair procedures for electrical/electronic systems.

- Apply advanced diagnostic and repair procedures for hydraulics/hydrostatics systems.

- Apply advanced diagnostic and repair procedures for power trains systems.

- Apply advanced diagnostic and repair procedures for diesel engine systems.

- Apply advanced diagnostic and repair procedures for air conditioning/heating systems.

- Perform advanced welding processes appropriate to field maintenance.

Learning Outcomes for Diesel Technology Equipment Management, BS

Upon completion of this program, students will be able to, in accordance with industry standards:

- Work within current industry safety guidelines and standards to ensure a safe working environment.

- Effectively utilize written and verbal communication skills and industry knowledge and resources (e.g., software, manuals).

- Apply advanced diagnostic and repair procedures for electrical/electronic systems.

- Apply advanced diagnostic and repair procedures for power trains systems.

- Apply advanced diagnostic and repair procedures for diesel engine systems.

- Apply advanced diagnostic and repair procedures for air conditioning/heating systems.

- Demonstrate a working knowledge of the general nature, structure, resources, and operations of business organizations in the diesel technology industry.

Learning Outcomes for Diesel Technology, AAS

Upon completion of this program, students will be able to, in accordance with industry standards:

- Work within current industry safety guidelines and standards to ensure a safe working environment.

-Effectively utilize written and verbal communication skills and industry knowledge and resources (e.g., software, manuals).

- Apply advanced diagnostic and repair procedures for electrical/electronic systems.

- Apply advanced diagnostic and repair procedures for hydraulics/hydrostatics systems.

- Apply advanced diagnostic and repair procedures for power trains systems.

- Apply advanced diagnostic and repair procedures for diesel engine systems.

- Apply advanced diagnostic and repair procedures for air conditioning/heating systems.

Learning Outcomes for Diesel Technology, CAS

Upon completion of this program, students will be able to, in accordance with industry standards:

- Work within current industry safety guidelines and standards to ensure a safe working environment.

-Effectively utilize written and verbal communication skills and industry knowledge and resources (e.g., software, manuals).

- Apply advanced diagnostic and repair procedures for electrical/electronic systems.

- Apply advanced diagnostic and repair procedures for power trains systems.

- Apply advanced diagnostic and repair procedures for diesel engine systems.

Learning Outcomes for Diesel Technology, Minor (no change)

Upon completion of this program, students will be able to, in accordance with industry standards:

- Apply basic diagnostic and repair procedures for machine systems and components.

- Apply basic diagnostic and repair procedures for hydraulic systems.

- Work within current industry safety guidelines and standards to ensure a safe working environment.

- Use written communication to convey technical information in a clear, concise, and professional manner.

Bachelor of Science Diesel Technology

Learning Outcomes:

Required Courses

Code	Title	Credits
General Education Core (https://catalognow.msun.edu/general-education-core/general-education-core/) [1]		33
Required Courses		
ATDI 134	Electrical/Electronic Sys I	6
ATDI 257	Automatics	4
ATDI 264	Electrical/Electronic Sys II	6
ATDI 265	Heating and Air Conditioning	4
ATDI 384	AT/DI Elctrcl/Elctrn Sys III	4
ATDI 400	Shop Procedures	3
DST 104	Intro to Diesel Engines	3
DST 114	Intro to Diesel Engines Lab	3
DST 115	Intro to Diesel Fuel Systems	5
DST 204	Intro to Hydraulics Pneumatics	2

DST 214	Intro to Hydr Pneumatics Lab	2
DST 216	Heavy Duty Power Trains	4
DST 219	Heavy Duty Chassis	4
DST 264	Diesel Engine Diagnosis Repair	3
DST 274	Diag Diesel Engine Repair Lab	3
DST 273	Diesel Shop Practices	4
DST 314	Hydraulics and Pneumatics II	4
DST 420	Diesel Shop Management	2
DST 434	Current Model Year Technology	3
DST 440	Advanced Fuel Systems	4
DST 450	Diag Pwr Shifts and HD Atmtics	4
DST 498	Cooperative Education	3
WLDG 110	Welding Theory I	2
WLDG 111	Welding Theory I Practical	2
WLDG 260	Repair & Maintenance Welding	3
Total minimum credits required for degree		**120**

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Please Note: ***In addition to WRIT 350 and TSCI 304, four (4) credits of the General Education Core must be at the upper division level.***

Associate of Applied Science Diesel Technology

Code	Title	Credits
Required Courses		
ATDI 134	Electrical/Electronic Sys I	6
DST 104	Intro to Diesel Engines	3
DST 114	Intro to Diesel Engines Lab	3
DST 204	Intro to Hydraulics Pneumatics	2
DST 214	Intro to Hydr Pneumatics Lab	2
COMX 111	Intro to Public Speaking (Meets CAT I Requirement)	3
or COMX 115	Intro to Interpersonal Communc	
ATDI 265	Heating and Air Conditioning	4
DST 115	Intro to Diesel Fuel Systems	5
ATDI 264	Electrical/Electronic Sys II	6
WLDG 110	Welding Theory I	2
WLDG 111	Welding Theory I Practical	2
DST 216	Heavy Duty Power Trains	4
DST 264	Diesel Engine Diagnosis Repair	3
DST 274	Diag Diesel Engine Repair Lab	3
M 121	College Algebra (Meets CAT II Requirement)	3
or M 105	Contemporary Mathematics	
ATDI 257	Automatics	4
DST 219	Heavy Duty Chassis	4
DST 273	Diesel Shop Practices	4
WRIT 122	Business Writing	
Total minimum credits required for degree		**66**

Certificate of Applied Science Diesel Technology

First Year		
Fall		**Credits**
ATDI 134	Electrical/Electronic Sys I	6
DST 104	Intro to Diesel Engines	3
DST 114	Intro to Diesel Engines Lab	3

DST 216	Heavy Duty Power Trains	4
	Term Credits	**16**
Spring		
DST 219	Heavy Duty Chassis	4
DST 115	Intro to Diesel Fuel Systems	5
WLDG 110	Welding Theory I	2
WLDG 111	Welding Theory I Practical	2
WRIT 122	Business Writing	3
COMX 115	Intro to Interpersonal Communc	3
	Term Credits	**19**
	Total Credits	**35**

Minor Diesel Technology

Code	Title	Credits
Required Courses		
DST 104	Intro to Diesel Engines	3
DST 114	Intro to Diesel Engines Lab	3
DST 115	Intro to Diesel Fuel Systems	5
DST 204	Intro to Hydraulics Pneumatics	2
DST 214	Intro to Hydr Pneumatics Lab	2
Select ten (10) credits from the following:		10
DST 314	Hydraulics and Pneumatics II	
DST 420	Diesel Shop Management	
DST 434	Current Model Year Technology	
DST 440	Advanced Fuel Systems	
DST 450	Diag Pwr Shifts and HD Atmtics	
Total minimum credits required for minor		**25**