

6/27/2023 DATE

 REQUIRED COURSE  
 ELECTIVE COURSE

 Agriculture DIVISION  
 NEW COURSE  
 REVISION

# Lake Land College

## Course Information Form

COURSE NUMBER:		AGR-087		TITLE: (30 Characters Max)		Diesel Fuel Systems					
SEM CR HRS:	0	Lecture:	0	Lab:	0	ECH:	0				
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI		<input checked="" type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:	0	Work-based Learning	0	WBL ECH:	0	
COURSE PCS #	12.470605		IAI Code				Contact Hours (Minutes Per Week)				
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	0	8 Wks	0
Prerequisites:	AGR 083 Introduction to Engines										
Catalog Description: (40 Word Limit)	Provide basic understanding of diesel engine fuel systems and operation. Students will learn diagnosis, removal of diesel pumps, and injector repair.										

List the Major Course Segments (Units)		Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
1	Introduction to Diesel Systems	4	1		
2	Types of Fuel Systems	4	2		
3	Injection Nozzles	6	8		
4	Diagnosis of Fuel System Components	6	10		
5	Diagnosis of Electronic Components	10	9		
<b>TOTAL</b>		<b>30</b>	<b>30</b>	<b>0</b>	<b>0</b>

### EVALUATION

QUIZZES	<input checked="" type="checkbox"/>	EXAMS	<input checked="" type="checkbox"/>	ORAL PRES	<input type="checkbox"/>	PAPERS	<input type="checkbox"/>
LAB WORK	<input checked="" type="checkbox"/>	PROJECTS	<input type="checkbox"/>	COMP FINAL	<input checked="" type="checkbox"/>	OTHER	<input type="checkbox"/>

### COURSE MATERIALS

TITLE:	Diesel Fuel Systems & Tractor Overhaul	
AUTHOR:	Robert Brady & John Dagele	
PUBLISHER:	Prentice Hall	
VOLUME/EDITION/URL:	5th Edition	
COPYRIGHT DATE:	2002	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Introduction to Diesel Systems	5	Identify diesel fuel systems and how they work.
Types of Fuel Systems	6	Discuss different types of fuel systems and working parts.
Injection Nozzles	14	Use hands-on work with injectors—testing, repairing, and operation.
Diagnosis of Fuel System Components	16	Explain how to diagnose, test, adjust, and do repair to fuel systems and components.
Diagnosis of Electronic Components	19	Compare different types of electronic fuel systems. Demonstrate an understanding of the component locations and operations. Perform the proper testing procedures using electronic equipment.
Insert New Line Above this Line		
	<b>60</b>	

### COURSE OUTCOMES\*

At the successful completion of this course, students will be able to:

- Demonstrate the ability to disassemble, repair, and adjust different types of mechanical injection nozzles.
- Perform diagnostic procedures of fuel system mechanical components.
- Perform diagnostic procedures of electronic fuel system components.
- Demonstrate the ability to identify the four basic types of diesel fuel systems and have a basic understanding of their operations.

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\* Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.