

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
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:
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		
TOTAL		30	30	0	0

EVALUATION			
QUIZZES	<input checked="" type="checkbox"/>	EXAMS	<input checked="" type="checkbox"/>
LAB WORK	<input checked="" type="checkbox"/>	PROJECTS	<input type="checkbox"/>
		ORAL PRES	<input type="checkbox"/>
		COMP FINAL	<input checked="" type="checkbox"/>
		PAPERS	<input 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		
	60	

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.	

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