

6/21/2023 DATE



REQUIRED COURSE



ELECTIVE COURSE

Agriculture DIVISION



NEW COURSE



REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	JDA-087	TITLE: (30 Characters Max)	John Deere Fuel Systems								
SEM CR HRS:	3	Lecture:	2	Lab:	2	ECH:	4				
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 - 01, 0201		IAI Code				Contact Hours (Minutes Per Week)				
Repeatable (Y/N):		Pass/Fail (Y/N):		Variable Credit (Y/N):		Min:	Max:	16 Wks	200	8 Wks	400
Prerequisites:	JDA-042 SOE II or instructor approval										
Catalog Description: (40 Word Limit)	Basic understanding of the operating principles of John Deere fuel systems. Students will also learn diagnosis, removal, installation, and repair of John Deere mechanical and electrical-electronic fuel system components.										

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	1		
3	Mechanical Injection Nozzles				3	6		
4	Diagnosis of Fuel System Components				9	10		
5	Diagnosis of Electrical-Electronic Components				10	12		
TOTAL					30	30	0	0

EVALUATION

QUIZZES	<input checked="" type="checkbox"/>	EXAMS	<input 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:	John Deere Service Publications Diesel Engine and Fuel System Repair	
AUTHOR:	John F. Dagle, Robert N. Brady	
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	Gain an understanding of diesel fuel systems and how they work.
Types of Fuel Systems	5	Demonstrate the various types of systems and repair and maintain the different types.
Mechanical Injection Nozzles	9	Discuss the different types of nozzles used along with testing and repair of those nozzles.
Diagnosis of mechanical Fuel System Components	19	Diagnose, test, adjust, and repair mechanical fuel system components including governor adjustments on distributor and inline injection pumps. Lab time will be spent with proper diagnostic procedures of the above.
Diagnosis of Electrical-Electronic Fuel System Components	22	Compare the different types of electrical-electronic fuel system component locations and component operation. Proper testing and diagnostic procedures will be introduced to the student using both equipment on-board diagnostics and computer connected diagnostics.
Insert New Line Above this Line		
	60	

COURSE OUTCOMES*

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

Demonstrate understand of identification and operating characteristics of different types of fuel systems.

Disassemble, repair, and adjust different types of mechanical injection nozzles.

Demonstrate understanding of diagnostic procedures of fuel system mechanical components.
Demonstrate understanding of diagnostic procedures of electronic fuel system components.

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