

6/20/2023
DATE

☒
REQUIRED COURSE

☐
ELECTIVE COURSE

AGR
DIVISION

☐
NEW COURSE

☐
REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	JDA-050	TITLE: (30 Characters Max)		John Deere Engine Systems					
SEM CR HRS:	3	Lecture:	1	Lab:	4	ICCB Lab:	4	ECH:	5
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input checked="" type="checkbox"/> Career/Technical			Clinical Practicum:	0	Work-based Learning	0	WBL ECH:	0
COURSE PCS #	12 - 01 0201		IAI Code	N/A		Contact Hours (Minutes/Week)			
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	250
Prerequisites:	None								
Coerequisites:	None								
Catalog Description: (40 Word Limit)	An introduction to John Deere engines and their systems. Basic theory of engine principles will be discussed along with diagnosis and repair of intake and exhaust, cooling, lubrication systems, cylinder heads, bearings, and crankshafts.								

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Engine Principles	5	10		
Intake and Exhaust Systems	1	5		
Lubrication Systems	1	5		
Cooling Systems	1	5		
Diagnosis and Testing	5	5		
Cylinder Head Repair	1	15		
Crankshaft and Bearing Repair	1	15		
TOTAL	15	60	0	0

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

COURSE MATERIALS	
TITLE:	John Deere FOS – Engines John Deere Service Publications
AUTHOR:	John Dagle
PUBLISHER:	John Deere Publishing
VOLUME/EDITION/URL:	10th Edition
COPYRIGHT DATE:	2009

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Engine Principles	15	Will cover basic principles of engine operation and components therein.
Intake and Exhaust Systems	6	Students will gain knowledge of how these systems work on any engine and what different types there are.
Lubrication Systems	6	Students will learn how lubrication system operates and what purpose it serves.
Cooling Systems	6	Students will understand the flow within cooling system and what components perform what duties.
Diagnosis and Testing	10	Will give procedures and knowledge for proper diagnosis and testing of all engine systems.
Cylinder Head Repair	16	Students will learn proper repair procedures for cylinder heads and valve trains.
Crankshaft and Bearing Repair	16	Students will be introduced to crankshaft measuring and repair, and bearing replacement.

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	Demonstrate personal safety habits to be used while performing engine repair.
	Demonstrate the basic operating principles of the internal combustion engine.
	Perform precision measurements on engine components.
	Perform a basic dis-assembly and re-assembly of a John Deere diesel engine.

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