

6/20/2023 DATE

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REQUIRED COURSE

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ELECTIVE COURSE

Agriculture DIVISION

☐ NEW COURSE☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	JDA-054	TITLE: (30 Characters Max)		JD Turf and Utility Equipment			
SEM CR HRS:	2	Lecture:	1	Lab:	2	ECH:	3
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 #	12.010201		IAI Code			Contact Hours (Minutes Per Week)	
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:
Prerequisites:	JDA-080, JDA-073, JDA-111						
Catalog Description: (40 Word Limit)	This course is a study of John Deere Turf and Utility equipment. Operation, diagnosis, and repair of internal combustion engines, engine ignition systems, electrical and safety systems, fuel systems, and mowing attachments will be covered.						

List the Major Course Segments (Units)		Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
1	Introduction to Internal Combustion Engines	3	8		
2	Battery Ignition Systems	2	3		
3	Magneto Ignition Systems	2	3		
4	Electronic Ignition Systems	2	2.5		
5	Cut Quality and Adjustments	2	5.5		
6	Electrical/Safety Systems	2	4.5		
7	Fuel Systems	2	3.5		
TOTAL		15	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 checked="" type="checkbox"/>
		COMP FINAL	<input type="checkbox"/>
		PAPERS	<input type="checkbox"/>
		OTHER	<input type="checkbox"/>

COURSE MATERIALS	
TITLE:	John Deere Fundamentals of Service – Engines John Deere Fundamentals of Service – Electrical Systems Compact Equipment John Deere Turf and Utility Service Publications
AUTHOR:	Dan Roling
PUBLISHER:	Deere & Company
VOLUME/EDITION/URL:	10th Edition, 2nd Edition
COPYRIGHT DATE:	2009 2000

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Introduction to Internal Combustion Engines	11	Identify components and explain the operation of an internal combustion engine. They will test, adjust, and repair components of internal combustion engines.
Battery Ignition Systems	5	Identify the components and explain the operation of battery ignition systems. They will troubleshoot, diagnose, and repair battery ignition systems.
Magneto Ignition Systems	5	Identify the components and explain the operation of magneto ignition systems. They will troubleshoot, diagnose, and repair magneto ignition systems.
Electronic Ignition Systems	4.5	Identify the components and explain the operation of electronic ignition systems. They will troubleshoot, diagnose, and repair electronic ignition systems.
Cut Quality and Adjustments	7.5	Identify the factors affecting cut quality. They will set-up, adjust, and repair mowing attachments.

Electrical/Safety Systems	6.5	Examine John Deere Turf & Utility equipment wiring diagrams and explain how the electrical and safety components work together to control machine functions. They will demonstrate the ability to troubleshoot and diagnose system failures and test system components.
Fuel Systems	5.5	Identify the components and explain the operation of John Deere Turf & Utility fuel systems. They will troubleshoot, diagnose, and repair fuel system components.
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		45

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	Identify the components of an internal combustion engine.
	Explain the operation of an internal combustion engine.
	Identify the ignition system components of all the ignition systems used on John Deere consumer and commercial equipment.
	Demonstrate the ability to perform engine and ignition system tests.
	Demonstrate the ability to inspect, assemble and adjust John Deere mowing equipment.

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