

6/27/2023 DATE



REQUIRED COURSE



ELECTIVE COURSE

Agriculture DIVISION

☐ NEW COURSE☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AGR-089		TITLE: (30 Characters Max)		Tractor Overhaul						
SEM CR HRS:	6	Lecture:	3	Lab:	6	ECH:	9				
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):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	450	8 Wks	900
Prerequisites:	AGR-083 Introduction to Engines										
Catalog Description: (40 Word Limit)	Designed to develop students' skills necessary to successfully overhaul a gas, liquid propane, or diesel farm equipment engine. Students will be able to accomplish disassembly and assembly procedures, measure parts for wear, engine overhaul, and tune-up and break-in procedures.										

List the Major Course Segments (Units)		Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
1	Disassembly Procedures	7	12.5		
2	Measuring Parts for Wear	3	10		
3	Engine and Components Overhaul	17	40		
4	Assembly Procedure	8	17.5		
5	Final Tune-Up and Break-In	10	10		
TOTAL		45	90	0	0

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:	Lubricants
AUTHOR:	John Deere Publishing
PUBLISHER:	John Deere Publishing
VOLUME/EDITION/URL:	8th Edition
COPYRIGHT DATE:	2000

TITLE:	Engine
AUTHOR:	John Deere Publishing
PUBLISHER:	John Deere Publishing
VOLUME/EDITION/URL:	9th Edition
COPYRIGHT DATE:	2003

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Disassembly Procedures	19.5	Practice proper disassembly procedures and their importance.
Measuring Parts for Wear	13	List proper procedures for using precision measuring equipment in checking the parts for wear.
Engine and Components Overhaul	57	Use proper techniques in the overhaul of an engine and other components such as oil and water pumps.
Assembly Procedure	25.5	Discuss proper assembly of an engine in order to insure the engine a long service life.
Final Tune-Up and Break-In	20	Explain the importance of the engine being in proper tune and a carefully monitored break-in period.
Insert New Line Above this Line		
	135	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	• Demonstrate proper 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 various makes of gasoline and diesel engines used.

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