6/20/2023 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

Agriculture DIVISION
☐ NEW COURSE
☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	JDA-071		**TITLE:** *(30 Characters Max)*		John Deere Power Trains						
SEM CR HRS:	3	**Lecture:**	2		**Lab:**	2				**ECH:**	4
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit		**Clinical Practicum:**	0	**SOE/ Internship:**	0	**SOE ECH:**	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:**		**16 Wks**	200	**8 wks**	400
Prerequisites:											
Catalog Description: (40 Word Limit)	Theory of power transmission from engine to traction wheels. Includes the function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Complete disassembly, inspection, and reassembly of John Deere components will occur. Also, diagnosis, repair, and adjustment of John Deere transmissions will be covered.										

	List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
1	Power Train Operating Principles	8	8		
2	Clutches	4	3		
3	Mechanical Transmissions	5	8		
4	Hydraulic Assist Transmissions	6	8		
5	Torque Converters	1	1		
6	Differentials	3	3		
7	Final Drives	1	3		
8	Power Take-offs	2	3		
	TOTAL	30	37	0	0

EVALUATION							
QUIZZES	☑	**EXAMS**	☐	**ORAL PRES**	☐	**PAPERS**	☐
LAB WORK	☑	**PROJECTS**	☐	**COMP FINAL**	☑	**OTHER**	☑ Workbook

COURSE MATERIALS		
TITLE:	John Deere FOS – Power Trains John Deere Service Publications	
AUTHOR:	John Deere	
PUBLISHER:	John Deere Publishing	
VOLUME/EDITION/URL:	8th Edition	
COPYRIGHT DATE:	2011	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Power Train Operating Principles	18	Student will gain knowledge of how different power trains function.
Clutches	10	Student will learn how different types of clutches function and how to disassemble, repair, and adjust.
Mechanical Transmissions	21	The function, repair, and adjustment will be learned.
Hydraulic Assist Transmissions	22	Operation, diagnosis, and repair of these types of transmissions will be taught.
Torque Converters	2	Student will learn where these are used in some systems and their repair.
Differentials	8	Student will gain knowledge in operation, removal, repair, and adjustment of differentials.
Final Drives	4	Student will learn final drive function, disassembly, repair, and adjustment.
Power Take-offs	5	Will give student understanding of power take-off systems and their repair.

Insert New Line Above this Line		
	90	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
Demonstrate knowledge of the different types of John Deere transmissions.	
Perform safe and proper operation of the different types of John Deere transmissions.	
Demonstrate operating principles of mechanical and hydraulic clutches used on John Deere equipment.	
Perform the operating principles of mechanical transmissions used on John Deere equipment.	
Perform the operating principles of planetary and countershaft type power shift transmissions.	