6/28/2023 DATE
☑ REQUIRED COURSE
☑ ELECTIVE COURSE

Agriculture DIVISION
☐ NEW COURSE
☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AGR-094		**TITLE:** *(30 Characters Max)*			Agricultural Machinery Air Conditioning							
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	**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**	200	**8 Wks**	400
Prerequisites:													
Catalog Description: (40 Word Limit)	Focuses on the theory of air conditioning, diagnosis of problems, and the safe handling of air conditioning material. Extensive hands-on is provided for diagnosis, service procedures, and agricultural air conditioning component repair. Equipment that will be covered will be two and four-wheel drive tractors, combines, and fertilizer applicator trucks.												

	List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
1	Safety with A/C Materials	2	1		
2	Theory of Operation	4	5		
3	Diagnosis of Problems	8	8		
4	Proper Service Procedures	6	6		
5	Component Repair	10	10		
	TOTAL	30	30	0	0

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

COURSE MATERIALS		
TITLE:	Air Conditioning	
AUTHOR:	John Deere Service Publications	
PUBLISHER:	Deere and Company	
VOLUME/EDITION/URL:	9th Edition	
COPYRIGHT DATE:	2009	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Safety with A/C Materials	3	Relate personal safety and air conditioning systems.
Theory of Operation	9	Identify the refrigeration cycle.
Diagnosis of Problems	16	Use A/C test equipment to properly and accurately diagnose problems.
Proper Service Procedures	12	Explain how to handle refrigerants without causing personal injury or damage to the environment.
Component Repair	20	Discuss proper repair of components such as compressors, clutches, expansion valves, and receiver-driers.
Insert New Line Above this Line		
	60	

COURSE OUTCOMES*	**At the successful completion of this course, students will be able to:**
• Perform safe handling practices of air conditioning materials.	
• Demonstrate operating characteristics of air conditioning systems.	

• Demonstrate air conditioning system diagnostic procedures.
• Perform proper servicing procedures on air conditioning systems.

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