6/29/2023	DATE	Agriculture	DIVISION
☐	REQUIRED COURSE	☐	NEW COURSE
☑	ELECTIVE COURSE	☐	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AGR-208	TITLE: *(30 Characters Max)*	Introduction to Agricultural Mechanization					
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 #	11 - 01. 0201	IAI Code	AG906			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)	Study of problems and laboratory exercises pointing to present and potential engineering applications in agriculture are presented. Emphasis is placed on farm power and machinery, soil and water control, electricity and structures.							

	List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
1	Introduction to Mechanization	2			
2	Agricultural Power and Machinery	7	8		
3	Agricultural Electrification and Application	7	8		
4	Agricultural Structures	7	7		
5	Soil and Water Conservation	7	7		
	TOTAL	30	30	0	0

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

COURSE MATERIALS	
TITLE:	Introduction to Agricultural Engineering
AUTHOR:	Roth and Field
PUBLISHER:	Van Nostrand Reinhold
VOLUME/EDITION/URL:	2nd Edition
COPYRIGHT DATE:	1991

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Introduction to Mechanization	2	Learning about mechanization areas including careers, training, and relationship to agricultural production and business.
Agricultural Power and Machinery	15	Understanding the fundamentals and operation of engines, transmissions, tillage machinery, calibration, and harvesting equipment.
Agricultural Electrification and Application	15	Develop an awareness and operation of circuits, motors, controls, and materials handling and processing.
Agricultural Structures	14	Understand the importance of accurate structure drawings and develop a working knowledge of loads, layout and design.
Soil and Water Conservation	14	Working with both differential and profile leveling, taping, mapping and land descriptions, conservation structures, and drainage and runoff.
Insert New Line Above this Line		
	60	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:

- Demonstrate the use of differential and profile leveling, taping, mapping and land descriptions, and drainage and water run-off.
- Describe the fundamentals of electricity and wiring, the operation of circuits, motors, controls and materials handling and processing.

- Discuss building and structural loads, construction materials, and building layout and design.
- Describe the fundamentals and operation of engines, tillage machinery, field efficiencies, and harvesting and precision agriculture equipment.

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