3/13/2025 DATE
☑ REQUIRED COURSE
☑ ELECTIVE COURSE

AGR DIVISION
☐ NEW COURSE
☑ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AGR-097		**TITLE:** *(30 Characters Max)*	Planting and Tillage Equipment							
SEM CR HRS:	3.0	**Lecture:**	1.5	**Lab:**	3.0	**ICCB Lab:**	3.0	**ECH:**	4.5		
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI ☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit			**Clinical Practicum:**	0.0	**Work-based Learning:**	0.0	**WBL ECH:**	0.0		
Course PCS & CIP:	12 - 01. 0201		**IAI Code:**	N/A				**Contact Hours (Minutes/Week)**			
Repeatable (Y/N):	N	**Pass/Fail (Y/N):**	N	**Variable Credit (Y/N):**	N	**Min:**		**Max:**		**16 Wks**	225	**8 Wks**	450
Prerequisites:	None										
Corequisites:	None										
Catalog Description: (40 Word Limit)	Covers the theory and principles of operation, set-up and adjustment, troubleshooting and repair of major brands of planters, drills, field cultivators and primary tillage equipment.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Introduction to tillage equipment	2.5	8		
Tillers and subsoilers	2	2		
Field cultivators and harrows	2	2		
Row crop weed control equipment	1	2		
Introduction to seeding equipment	4.5	10		
Row crop planters	3	8		
Grain drills and broadcast equipment	3	8		
Row crop planter diagnostics	4.5	5		
TOTAL	22.5	45	0	0

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

COURSE MATERIALS		
TITLE:	Planting FMO Manual; Set-Up and Technical Manuals from Various Companies	
AUTHOR:	John Deere	
PUBLISHER:	John Deere Publishing	
VOLUME/EDITION/URL:	3rd Edition	
COPYRIGHT DATE:	2000	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Introduction to tillage equipment	10.5	1. Compare the different types and use of tillage equipment available and the effect on total crop management.
Tillers and subsoilers	4	1. Describe and demonstrate tiller and subsoiler set-up, adjustment, maintenance and repair.
Field cultivators and harrows	4	1. Demonstrate the proper set-up, adjustment, repair and maintenance of field cultivators and harrows.
Row crop weed control equipment	3	1. Explain and demonstrate the set-up, adjustment, repair, and maintenance of cultivators and rotary-hoes.
Introduction to seeding equipment	14.5	1. Examine the different types and brands of seeding equipment and differentiate the use of each in different tillage practices.

Row crop planters	11	1. Describe and demonstrate the set-up, maintenance and adjustment of row crop planters.
Grain drills and broadcast equipment	11	1. Apply proper set-up procedures, adjustments, maintenance and repair procedures on grain drills and broadcast equipment.
Row crop planter diagnostics	9.5	1. Review locations and explain operation of each component. 2. Demonstrate proper troubleshooting techniques and different system failures.
	67.5	

Outcomes*	Outcome Title	At the successful completion of this course, students will be able to:
Course Outcome 1	Ground Tillage Equip	Identify ground engaging tillage equipment available on the market today.
Course Outcome 2	RC Planters	Identify all major components of row-crop planters.
Course Outcome 3	RC Unit Components	Assemble and adjust row unit components common to most row-crop planters manufactured today.
Course Outcome 4	ElectroHydraul Schem	Read electro-hydraulic schematics required to diagnose row-crop planter hydraulic issues.
Course Outcome 5	RC Plant Seed Meters	Repair and adjust seed meters for row-crop planters.
Primary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using the appropriate technological tools.	
Secondary Laker Learning Competency	Critical Thinking: Students connect knowledge from various disciplines to formulate logical conclusions.	

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit*