6/22/2023 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

Agriculture DIVISION
☐ NEW COURSE
☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AGR-050	**TITLE:** *(30 Characters Max)*	Soils								
SEM CR HRS:	3.5	**Lecture:**	3	**Lab:**	1					**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 #	11.011201	**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)	Planned learning activities and experiences designed to cover soil development, functions of soil minerals, soil types, and their class. A major study of soil types in Illinois and Indiana and their conservation practices are included.										

	List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
1	What is Soil?	4			
2	Physical Properties of Soil	6	3		
3	Soils of Illinois	4	1		
4	Soils of the World	4			
5	Soil Formation and Classification	4	1		
6	Chemical Properties of Soil	5	3		
7	Biological Properties of Soil	5	3		
8	Legal Descriptions	3	1		
9	Soil and Water Conservation	5	2		
10	Soil Fertility	5	1		
	TOTAL	45	15	0	0

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

COURSE MATERIALS		
TITLE:	Soil Science and Management	
AUTHOR:	Edward J. Plaster	
PUBLISHER:	Delmar Learning	
VOLUME/EDITION/URL:	5th Edition	
COPYRIGHT DATE:	2009	

TITLE:	Introductory Experimental Soil Science (Workbook)	
AUTHOR:		
PUBLISHER:		
VOLUME/EDITION/URL:	2nd Edition	
COPYRIGHT DATE:		

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
What is Soil?	2	Discuss differing soil horizons, parent materials, and its components. Students take their own samples to evaluate.
Physical Properties of Soil	8	Evaluate structure, texture, color and density of various soil types.
Soils of Illinois	4	Identify the five orders and seven regions of Illinois are identified and studied.
Soils of the World	2	Locate soils found in other states and world-wide are discussed.
Soil Formation and Classification	3	Explain soil profiles and utilize the soil survey.

Chemical Properties of Soil	7	Define nutrient exchange, essential elements for plant and pH.
Biological Properties of the Soil	6	Discuss nitrogen cycle and its respective bacteria. Evaluate C:N ratio and organic matter effects on plant growth.
Legal Descriptions	2	Distinguish metes and bounds, and rectangular survey methods as used in real estate and identify acreages.
Soil and Water Conservation	6	Identify irrigation systems, pollutants, waste management, erosion mechanisms and control, strip-mine reclamation effects.
Soil Fertility	5	Describe fertilizer application and placement, plant needs, deficiency, and toxicity symptoms.
Insert New Line Above this Line		
	45	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
• Students will demonstrate an understanding of soil development and classification.	
• Students will explain or recall facts on the impact that the physical properties of soil have on plant growth.	
• Students will demonstrate a basic understanding of soil fertility.	
• Students will describe the correct way to collect soil samples.	

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