3/4/2025 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

AGR 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:**	3.0	**Lab:**	1.0	**ICCB Lab:**	1.0	**ECH:**	4.0		
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:	11 - 01.1201		**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**	200	**8 Wks**	400
Prerequisites:	None										
Corequisites:	None										
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	Work-based Learning
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	Introductory Experimental Soil Science (Workbook)
AUTHOR:	Edward J. Plaster	
PUBLISHER:	Delmar Learning	
VOLUME/EDITION/URL:	5th edition	2nd edition
COPYRIGHT DATE:	2009	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
What is soil?	2	1. Summarize compounds of soil.
Physical properties of soil	8	1. Assess structure, texture, color and density of various soil types.
Soils of Illinois	4	1. Evaluate six common soil orders in Illinois.
Soils of the world	2	1. Discuss soils found around the USA and the world.
Soil formation and classification	3	1. Examine soil profiles and utilize the soil survey.
Chemical properties of soil	7	1. Examine nutrient exchange, essential elements for plant and pH.
Biological properties of the soil	6	1. Summarize nitrogen cycle and its respective bacteria. Evaluate C:N ratio and organic matter effects on plant growth.
Legal descriptions	2	1. Report metes and bounds, and rectangular survey methods as used in real estate and identify acreages.

Soil and water conservation	6	1. Identify irrigation systems, pollutants, waste management, erosion mechanisms and control, strip-mine reclamation effects.
Soil fertility	5	1. Assess fertilizer application and placement, plant needs, deficiency, and toxicity symptoms.
	45	

Outcomes*	**At the successful completion of this course, students will be able to:**
Course Outcome 1	Summarize soil formation and classification.
Course Outcome 2	Measure physical properties of soil.
Course Outcome 3	Examine soil test results.
Course Outcome 4	Perform correct soil sampling techniques.
Primary Laker Learning Competency	Quantitative Literacy: Students analyze data and mathematical patterns in real-life situations.
Secondary Laker Learning Competency	Scientific Literacy: Students apply the scientific process to real-life situations.

**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.*