

9/15/2022 DATE

☒ REQUIRED COURSE
☐ ELECTIVE COURSE

MSD DIVISION
☒ NEW COURSE
☐ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	GIS-091		TITLE: (30 Characters Max)		Advanced GIS	
SEM CR HRS:	3	Lecture:	1.5	Lab:	3	ECH: 4.5
Course Level:	<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI		<input checked="" type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:	0
					SOE/ Internship:	0
COURSE PCS #	12 - 45.0701		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 225 8 wks 450
Prerequisites:						
Catalog Description: (40 Word Limit)	This course provides an introduction to advanced applications of Geographic Information Systems (GIS) using ArcView and ArcInfo. Focus will be placed on technician level issues associated with data capture and associated quality control issues associated with developing accurate information.					

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
Basis of ArcGIS	3	6		
Displaying and Georeferencing Data in ArcGIS	3	6		
Querying Your Database in ArcGIS	3	6		
Working with Data in ArcGIS	3	6		
Working with Tables in ArcGIS	3	6		
Presenting Data in ArcGIS	3	6		
Final Projects	4.5	9		
TOTAL	22.5	45	0	0

EVALUATION			
QUIZZES <input checked="" type="checkbox"/>	EXAMS <input checked="" type="checkbox"/>	ORAL PRES <input type="checkbox"/>	PAPERS <input type="checkbox"/>
LAB WORK <input checked="" type="checkbox"/>	PROJECTS <input checked="" type="checkbox"/>	COMP FINAL <input type="checkbox"/>	OTHER <input type="checkbox"/>

COURSE MATERIALS	
TITLE:	GIS Tutorial
AUTHOR:	Wilpen L. Gorr and Kristen Kurland
PUBLISHER:	ESRI Press
VOLUME/EDITION/URL:	3rd
COPYRIGHT DATE:	2008

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Basics of ArcGIS	9	<ul style="list-style-type: none"> Demonstrate and use the menus of ArcGIS through the ArcMap, ArcCatalog, and ArcToolbox interfaces.
Displaying and Georeferencing Data in ArcGIS	9	<ul style="list-style-type: none"> Demonstrate how geographic data can be displayed in ArcGIS.
Querying Your Database in ArcGIS	9	<ul style="list-style-type: none"> Build queries to create selected sets of features that meet the criteria specified.
Working with Data in ArcGIS	9	<ul style="list-style-type: none"> Demonstrate and use some of the editing tools and edit map data within ArcMap. In addition, students will use the Geography Network to find data and how to use it for dynamic maps.
Working with Tables in ArcGIS	9	<ul style="list-style-type: none"> Demonstrate and work with associated tabular data with maps in the GIS environment. Students will be able to query and select records from attribute databases within ArcGIS.

Presenting Data in ArcGIS	9	<ul style="list-style-type: none"> Produce and use basic mapping principles and how to present data and analysis within ArcGIS. Demonstrate how to use ArcMap's cartographic tools to create cartographic quality maps.
Final Project	13.5	<ul style="list-style-type: none"> Develop a final project utilizing local paper maps and convert them into a GIS database.
Insert New Line Above this Line		
	67.5	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	<ul style="list-style-type: none"> Demonstrate through project based learning or GIS Tutorials concepts associated with GIS Core Competencies like data creation, analysis, or map making.
	<ul style="list-style-type: none"> Develop and complete a final project addressing a research problem or project that needs to be addressed using GIS Technology.

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