

9/15/2022 DATE

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REQUIRED COURSE

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ELECTIVE COURSE

MSD

DIVISION

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NEW COURSE

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REVISION

# Lake Land College

## Course Information Form

COURSE NUMBER:	ESC-114		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 checked="" type="checkbox"/> Baccalaureate /Non-IAI		<input type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:	0
COURSE PCS #	11 - 45.0701		IAI Code		SOE/ Internship:	0
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min: Max: 16 Wks 225 8 wks 450
Prerequisites:	GIS-090 or ESC-106 or consent of instructor					
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 accuracy associated with developing accurate information for geodatabase development.					

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		
<b>TOTAL</b>	<b>22.5</b>	<b>45</b>	<b>0</b>	<b>0</b>

## 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:	ESRI Virtual Campus - On Line
AUTHOR:	
PUBLISHER:	
VOLUME/EDITION/URL:	
COPYRIGHT DATE:	2019

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Basics of ArcGIS	9	Demonstrate and use the menus of ArcGIS through the ArcMap, ArcCatalog, and ArcToolbox interfaces.
Understanding geodatabase structures and types	9	Demonstrate how geodatabases are structures and differences between file, personal, and multiuser geodatabases
Editing and creating geodatabases	9	Build and develop geodatabases using GIS tools to manage both geographic and attribute information input.
Quality control geographic data	9	Demonstrate and use topology tools to control and manage human errors with digitizing using appropriate topologic tools.
Quality control with attribute data	9	Demonstrate and use domains and subtypes to model and manage accurate attribute database input.

Producing mini-project	9	Produce and use sample project to create, edit, and populate a geodatabase for analysis as a class related exercise.
Final Project	13.5	Develop a final project utilizing original, downloaded, or imported data within an organized geodatabase model using appropriate geographic research techniques for analysis of a spatial problem with student analysis.
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"> <li>• Demonstrate through project based learning or GIS Tutorials concepts associated with GIS Core Competencies like data creation, analysis, or map making.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop and complete a final project addressing a research problem or project that needs to be addressed using GIS Technology</li> </ul>

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