

# Course Outcome Guide (COG)

<b>Course:</b>	GIS 107 – GIS Application	<b>Credits:</b>	3	<b>Instructor:</b>	TGerald (Mack) McGillivray
<b>Course Description:</b>	The course will provide hands-on opportunities to experience the hardware and software used for GIS. The course applies the Fundamental GIS concepts as well as how to create, edit, and work with spatial data through exploring hands-on real world applications in relation to urban community, environmental data, and more. Students will manipulate, query, and present data in maps and make decisions from the presented information. Emphasis will be on ESRI's ArcGIS software and the spatial analyst extension. Prerequisites: Fundamentals of Geographic Information Systems				
Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institutional
Data structures GIS analysis Charts and graph analysis GIS analysis procedures GISMaps and Cartography Map Construction with GISArcView GIS ArcView GIS Views and Themes ArcView GIS TablesUse of ArcView to create and edit themes Spatial query and analysis with ArcView Use of ArcView to create and edit shapefiles Use of ArcView to geocode addresses Use of ArcView to create layouts ArcView GIS extensions	Written results of class labs and exercises  Completion of a midterm ArcView GIS mapping project  Completion of a final mapping project utilizing ArcView GIS  Identify the important elements of map design.  Identify and define GIS/ArcView terminology.  Identify the historical events and people that pioneered GIS.  Use ArcView to display data in a view.  Use ArcView to create and	*Participate in class discussions and activities demonstrating knowledge of subject matter. *Complete examinations demonstrating acceptable skill level of concept and process. *Complete textbook readings, questions and problems (both individually and collaboratively) demonstrating acceptable skill levels of concept and process. * Design, construct and test your final project.	Use GIS systems to address spatial questions  Use GIS systems to design and complete comprehensive projects  Apply map principles and design techniques to project development and implementation  Communicate effectively in a professional setting specific to GIS analysis and project design	1.Mathematics-including numeration literacy and the knowledge and use of statistical and logical processes. 2.Analytical-gathering, organizing, and evaluating information 3.Analogical-using former knowledge to help comprehend and explain new situations 4.Critical Thinking-the ability to identify ad define criteria, understand biases, and construct objective judgments. 5.Problem solving-the ability to analyze situations and synthesize solutions.	1. Students will demonstrate effective communication skills. 2. Students will use reasoning skills to analyze and solve problems.

	<p>edit themes.</p> <p>Use ArcView to query a database.</p> <p>Use ArcView to create and edit shapefiles.</p> <p>Use ArcView to create maps for presentation.</p>				
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