

### Assessment Plan

Date: December 2019 Program Name: Graduate GIS Certificate

CIP Code: None

Department: Earth and Environmental Sciences

Domain	Program-Level Student Learning Outcome	Year 1	Year 2	Year 3	Year 4	Year 5
		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
SLO#1	Design maps that are fit-for-purpose and effectively convey the information they are intended to by following fundamental cartographic principles	<b>Data Collection:</b> Gather baseline data from courses that introduce, reinforce, and master map design. <b>Measure</b> - Lab assignments, final projects, and final GIS portfolio. <b>Reflect on findings</b> and develop an improvement plan.	<b>Improvement plan:</b> Implement actions for improvement and complete a <b>Follow-up assessment</b> on those improvements with <b>Data collection:</b> gather data from improved courses to evaluate the impact of improvements plan.		<b>Data Collection:</b> Assessment data for upper level core courses that reinforce, and master map design where improvements were made based on direct measures. <b>Measure</b> - Lab assignments, final projects, and final GIS portfolio. <b>Reflect on findings:</b> discuss impact on improvements and develop an improvement plan.	<b>Improvement plan:</b> Implement actions for improvement and complete a <b>Follow-up assessment</b> on those improvements with <b>Data collection:</b> gather data from improved courses to evaluate the impact of improvements plan.
SLO#2	Effectively communicate processes and solutions to the intended audience using appropriate media		<b>Data Collection:</b> Gather baseline data from courses that introduce, reinforce, and master communication. <b>Measure</b> - Lab assignments, final projects, and final GIS portfolio. <b>Reflect on findings</b> and develop an improvement plan.	<b>Improvement plan:</b> Implement actions for improvement and complete a <b>Follow-up assessment</b> on those improvements with <b>Data collection:</b> gather data from improved courses to evaluate the impact of improvements plan.		
SLO#3	Demonstrate theoretical knowledge of techniques for spatial data analysis			<b>Data Collection:</b> Gather baseline data from introductory and advanced courses. <b>Measure</b> - Quizzes, Lab assignments, final projects, and final GIS portfolio. Internship supervisor feedback. <b>Reflect on findings</b> and develop an improvement plan.	<b>Improvement plan:</b> Implement actions for improvement and complete a <b>Follow-up assessment</b> on those improvements with <b>Data collection:</b> gather data from improved courses and Internship course supervisors to evaluate the impact of improvements plan.	

**Assessment Activity (Examples)**

Gather baseline data  
 (Revise rubric; gather data)  
 Implement actions for improvement  
 Follow-up assessment (impact data)

**Direct Measures:**

Exam questions  
 Student paper (rubric)  
 Presentation (rubric)

**Methods of Assessment**

**Indirect Measures:**

Focus group  
 Exit interview  
 Alumni survey

**External Direct Measures:**

Supervisor/Employer feedback  
 External Professional Exam