Departmental/Office Assessment Plan for GIS Courses

Learning objectives:

Campus-Wide and Course-Specific Learning Objectives The learning objectives of the GIS courses are summarized in Table 1 below. The GIS courses were designed to meet the learning objectives outlined in the US Department of Labor geospatial technology competency model (https://www.careeronestop.org/competencymodel/competency-models/geospatial-technology.aspx).

GTCM categorizes competencies into five major tiers. Tiers 1, 2, and 3 include foundation competencies. Tiers 4 and 5 are geospatial industrial specific technical competencies. Here are the tiers.

Tier 1 – Personal Effectiveness Competencies - soft skills

Tier 2 – Academic Competencies - cognitive functions and thinking styles

Tier 3 – Workplace Competencies - motives and traits, interpersonal and self-management styles

Tier 4 – Industry-Wide Technical Competencies - cross-cutting knowledge, skills, and abilities needed by workers within the geospatial technology industry

Tier 5 – Industry-Sector Technical Competencies - knowledge, skills, abilities and other characteristics that are specific to a specific segment in the geospatial technology industry. The segments include: 1) Positioning & Data Acquisition, 2) Analysis & Modeling, and 3) Software & Application Development.

Assessment Methods and Procedures All GIS courses use direct assessment methods and procedures. See Table 2 for a complete list of courses and their assessment methods. The methods and procedures include the combinations of the following items:

- Examinations
- Presentations
- Demonstration
- Project proposal
- Project teamwork
- Poster/map display
- Lab exercises
- Report/Paper writing
- Deadlines
- Community partnership
- Seminar

Desired Results At least 80% of students who complete the courses receive a passing grade for the identified competencies.
Planned Improvements Based on Assessment Results The department GIS faculty and instructors are involved in the assessment and improvement processes. Instructors teaching the same courses are engaged in discussions that seek to provide consistency in learning objectives. Instructors teaching courses that are in sequences regularly aligning their course learning objectives (see Appendix A for the GIS course sequences). If desired results are not achieved, revisit course materials and/or assessment methods.

(underlines indicate recommended prerequisites)