Program SLOs
Geography and Related Disciplines
(Geography, GIS, Environmental Studies & Sustainability, General Science)

A.S. Degree - Geography
A.S. Degree - Environmental Studies and Sustainability
AA-T - Geography (A.A. for Transfer)
A.S. Degree- General Science
Certificate of Achievement – Professional Applications of Geographic Information Systems (GIS)

Geography Program Student Learning Outcomes From the 2015 PrOF (Program Review) Update			
1	Program Student Learning Outcome (P-SLO)	**Geographic Competence**	Students will be able to demonstrate understanding of the physical and human environments, their interconnections, and the geographic processes that form and change them.
2	Program Student Learning Outcome (P-SLO)	**Spatial Analysis and Scale**	Students will be able to analyze and interpret geographic information at local, regional, and/or global scales.
3	Program Student Learning Outcome (P-SLO)	**Issue Analysis and Ethics**	Students will be able to analyze and evaluate critical geographic issues, their ethical dimensions, and their influence on decision-making.
4	Program Student Learning Outcome (P-SLO)	**Cultural Diversity**	Students will be able to recognize, appreciate, and understand the geographic diversity of people, places, and events.
5	Program Student Learning Outcome (P-SLO)	**Geographic Tools and Techniques**	Students will be able to demonstrate competency in the use and analysis of maps, graphs, spatial datasets, and/or geographic technologies.
6	Program Student Learning Outcome (P-SLO)	**Communication**	Students will be able to communicate geographic information effectively in oral, written, and graphic form.

A.S. – Geography – Student Learning Outcomes*
SLO 1 Demonstrate understanding of the global natural and cultural environments and the geographic methods by which they are studied.
SLO 2 Compare and contrast the general biophysical and socio-cultural differences and similarities among world regions that operate through time and over space.
SLO 3 Evaluate and analyze critical geographic issues facing the world today.
SLO 4 Recognize the diversity of peoples, places, and events globally as well as within specific geographic regions.
SLO 5 Interpret maps and mapped data utilizing basic map elements, including scales, common coordinate systems, and map symbols.
SLO 6 Use a computer effectively to research, map and analyze geographic information.

A.S. – Geography – Student Learning Outcomes*
SLO 7 Compare and contrast common geographic technologies such as geographic information systems (GIS) and the global positioning system (GPS).
SLO 8 Communicate geographic information effectively in oral, written, and graphic form.

A.S. – Environmental Studies and Sustainability – Student Learning Outcomes*
SLO-1 Articulate an understanding of the natural environment and human societies' relationship to it. This includes the ability to: • Communicate effectively about environmental issues and sustainability, correctly utilizing vocabulary while indicating a complex understanding of disciplines in the program. • Articulate an awareness of the relevance of environmental studies to the student's life and wider community at both local and global scales. • Recognize the importance of interdisciplinary and multidisciplinary approaches to solving environmental problems.
SLO-2 Evaluate and analyze environmental processes and human impacts on the natural environment. This includes the ability to: • Use logical and quantitative reasoning to solve environmental problems. • Analyze critical environmental problems facing the world today. • Evaluate data and draw reasonable conclusions. • Utilize the scientific method. • Employ information-gathering tools to investigate environmental ideas.
SLO-3 Recognize the ethical dimensions of decisions and actions and engage in the ethical reasoning necessary to be a responsible local and global citizen. This includes the ability to: • Recognize the ethical implications of research and the responsibility to use knowledge wisely. • Articulate the value of understanding environmental systems.
SLO 4 ***Transfer to a 4-year program and further prepare for employment in an environmental career.***

AA-T – Geography (A.A. for Transfer) – Student Learning Outcomes*
SLO 1 Demonstrate understanding of the global natural and cultural environments and the geographic methods by which they are studied.
SLO 2 Compare and contrast the general biophysical and socio-cultural differences and similarities among world regions that operate through time and over space.
SLO 3 Evaluate and analyze critical geographic issues facing the world today.
SLO 4 Recognize the diversity of peoples, places, and events globally as well as within specific geographic regions.
SLO 5 Interpret maps and mapped data utilizing basic map elements, including scales, common coordinate systems, and map symbols.
SLO 6 Use a computer effectively to research, map and analyze geographic information.
SLO 7 Compare and contrast common geographic technologies such as geographic information systems (GIS) and the global positioning system (GPS).
SLO 8 Communicate geographic information effectively in oral, written, and graphic form.

Certificate – Professional Applications of GIS – Student Learning Outcomes*
SLO-1 Demonstrate an understanding of GIS technologies, theories and practices. • Describe and assess fundamental aspects of geographic information and scale, with specific reference to raster and vector digital spatial data models used to represent such information. • Compile, compare, and evaluate various types of spatial data, with specific attention to geospatial metadata, data quality, and identification of the most appropriate data type for use in a specific GIS application. • Compare and contrast the variety of available coordinate systems, map projections, and data, and choose the appropriate variety for a specific GIS application. • Compare and contrast the effectiveness of various GIS output products, including maps, tables, charts, and other digital output for specific applications. • Describe, assess, and compare common map elements and the cartographic design process.
SLO 2 Apply GIS technical skills in a professional setting. • Originate, classify, edit, and manage digital spatial data using various techniques (e.g., manual, scan, and on-screen digitizing, computer-assisted drafting, GPS, etc.). • Design, synthesize, validate, optimize, and manage spatial attribute tables and databases. • Apply appropriate data normalization and classification schemes to attribute data. • Formulate geoprocessing and analysis functions that are appropriate for specific applications, and be able to perform and evaluate the results of such processes (such as buffering, overlay, reclassification, address matching, and statistical analysis).
SLO 3 Exhibit skills learned via GIS project development. • Synthesize, design, apply, and manage a GIS project, including estimates of time and labor requirements. • Design, create, and disseminate high-quality maps in both hard-copy (paper) and digital (on-screen) form. • List and describe at least three career options for GIS professionals.
SLO 4 Cultivate spatial analysis and critical thinking skills for decision-making purposes.
SLO 5 Understand how GIS skills are applicable in specific career fields.

* Developed through the Curriculum Committee approval process.