GEOGRAPHIC INFORMATION SYSTEMS, UNDERGRADUATE CERTIFICATE

Program Code: UGCT-AS
Cert Code: GIS

Geosciences Department
160 Science and Math Complex
(716) 878-6731
geosciences.buffalostate.edu/ (http://geosciences.buffalostate.edu/)

In today's world of computers, tablets, and smartphones there is an abundance of spatial data available that is applicable to many disciplines and careers. Spatial data identifies the geographic location of features and boundaries on Earth and is usually stored as geographic coordinates. The Geographic Information Systems (GIS) certificate will provide students with a background in spatial thinking, analysis, and mapping skills that will allow them to understand the application of geospatial technology to their discipline or career path. The geospatial skills and technology emphasized in the GIS certificate will enrich analysis and improve decision-making across disciplines.

Program Requirements

Code	Title	Credit Hours
Required Courses (6 credit hours)		
GEG/PLN 325	MAPS AND MAPMAKING USING GIS	3
GEG 425	FUNDAMENTALS OF GIS	3
Elective Courses (9 credit hours)		
Select two courses from the following (6 credit hours):		6
GEG 418	REMOTE SENSING	
GEG 428	ENVIRONMENTAL ASSESSMENT AND PLANNING APPLICATIONS IN GIS	
GEG 429	ADVANCED TOPICS IN GIS	
GEG 485	INTERACTIVE AND WEB-BASED MAPPING	
Select one course from the following (3 credit hours):		3
Any course not selected to fulfill the above requirements		
BIO 300	BIOSTATISTICS	
CIS 151	COMPUTER PROGRAMMING I	
CRJ 310	STATISTICS IN CRIMINAL JUSTICE	
ECO 305	STATISTICS FOR ECONOMICS	
GEG 390	QUANTITATIVE METHODS IN GEOSCIENCES	
HEW 326	INTRODUCTION TO HEALTH DATA VISUALIZATION AND ANALYTICS	
MAT 311	INTRODUCTORY PROBABILITY AND STATISTICS	
PSC 204	POLITICAL STATISTICS	
PSY 350	STATISTICS IN PSYCHOLOGICAL RESEARCH	
SOC 299	SOCIAL STATISTICS	
Total Credit Hours		**15**