GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS 105 | ArcView GIS
Lecture Credit: 3
Introduces the fundamentals of GIS including cartographic principles, hardware, and software requirements, raster, and vector data structures, and data sources, accuracy, and acquisition, spatial data databases and spatial analysis. Hands-on experience with vector data utilizing ArcView software includes use of map scales, coordinate systems, determining spatial relationships, map features and attributes, map overlays, and basic operations with databases. Student will learn to create charts and graphs and full map layouts. A final project is required

GIS 131 | Global Positioning Systems for Global Information Systems
Lecture Credit: 3
Introduces the terminology, hardware, and technological principles of GPS. Students will receive an introduction in the fundamentals of using a basic hand-held GPS unit. Data will be integrated with pre-existing spatial data. Fundamentals of mapping and map reading will be covered. Garmin GPS units will be used initially, followed with Trimble GeoExplorers and Pathfinder Office software. Final student projects integrate GPS data within ArcView projects.