# GEOSPATIAL ANALYTICS (IAG)

**IAG 620 Understanding Geographic Information Systems 3**  
Study and application of geographic information systems for professional problem-solving, spatial analysis, and mapping.

**IAG 621 Advanced Cartography 3**  
Advanced instruction in cartographic production techniques and introduction to cartographic research. Students will learn to evaluate academic literature and to implement research ideas using state-of-the-art technology.

**IAG 622 GIS Applications in Urban Planning 3**  
Theory and practice integrating Geographic Information Systems with land use planning practice. Emphasis on advanced analysis and display of spatial data and information in support of land use planning decision-making.

**IAG 623 Advanced Geographic Information Systems 3**  
Advanced concepts and methods in Geographic Information Systems (GIS). Emphasis is placed on the analysis and modeling of geospatial data using raster and vector data models.

**IAG 624 Advanced Remote Sensing-Imaging 3**  
Remote sensing of the environment using scientific visualization and digital image processing techniques.

**IAG 625 Spatial Analysis 3**  
Theory and practice in combining Geographic Information Systems software with statistical analysis software. Emphasis will be on the quantitative analysis and visual display of spatial information.

**IAG 626 GIS Programming and Design Application 3**  
Theory and practice in the creation of Geographic Information Systems using logic-based programming and database construction tools. Emphasis on modeling of spatial information and logic-based approaches to GIS.

**IAG 689 Capstone Project in Geospatial Analytics 3**  
Capstone course. Students work with local industries and nonprofit organizations to solve important data science problems under the supervision of a mentor.