GISC 7310 - Advanced GIS Data Analysis

GISC 7310 Advanced GIS Data Analysis (3 semester credit hours) The specification, interpretation and properties of the multiple linear regression model including spatial and aspatial regression diagnostics are examined. A detailed review of the key concepts of matrix algebra, optimization techniques and simulation experiments is given. GIS and GPS data handling procedures are discussed from a regression and linear transformation perspective. Extensions to principal component analysis, ridge regression, weighted regression, logistic and Poisson regression are provided. Practical data analysis for large Geo-referenced data sets are exercised. Prerequisite: GISC 6301 or equivalent. (3-0) Y