

GEOG 497/597 (CRN: 44418/44419)

Spatial Quantitative Analysis

MWF 11:30-12:35

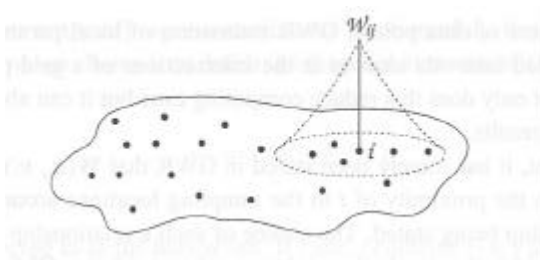
413 Cramer Hall

Course Description

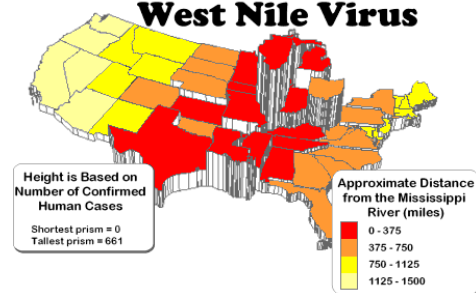
This course is an application of statistical methods for geographers and other social, earth and environmental scientists that use geospatial data. It is intended to teach how to *use* statistics in understanding and solving various geospatial problems. Topics include inferential statistics for spatial data (hypothesis testing), spatial regression, point pattern analysis, spatial autocorrelation, spatial interpolation, and multivariate spatial data analysis. The emphasis will be on developing analytical skills with practical applications. Topics covered in class will be supplemented with computer exercises, which will use several graphical and statistical software packages (STATA, GRAPH, S-PLUS, SURFER) to perform graphical and numerical analysis of geospatial data.

Instructor

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Tracking the West Nile Virus



Grading

Undergraduate: Assignments (50%), Exams (50%)
Graduate: Assignments (40%), Exams (40%), Term paper (20%)

Textbooks

1. McGrew, J.C. and Monroe, C.B. (2000) **An Introduction to Statistical Problem Solving in Geography**, 2nd edition, McGraw Hill: Boston.
2. Fotheringham, A.S., Brunson, C., and Charlton, M. (2002) **Quantitative Geography: Perspectives on Spatial Data Analysis**, Sage: London.
3. O'Sullivan, D. and Unwin, D. (2003) **Geographic Information Analysis**, Wiley: Hoboken.