

INDIANA UNIVERSITY

The Bureau of Social Science Research and the
Department of Criminal Justice present

Workshop in Methods

Introduction to GIS and Thematic Mapping in the Social Sciences: Research, Teaching, and Outreach

The Workshop

This workshop is designed for those with no experience working in a GIS environment.

GIS (Geographic Information Systems) is a powerful set of database and computer mapping techniques that can transform social science research, teaching, and our disciplines' ability to effectively communicate with outside audiences. This introductory workshop will give a basic introduction to the art and science of GIS using ESRI's ArcGIS system of software. Topics to be addressed include basic pin map construction, geocoding of address based data, merging of traditional data with map databases and geospatial information, sources of geospatial data, univariate and multivariate thematic mapping, 3D mapping, and techniques for imbedding maps in documents and presentations. Material for the workshop will be drawn from *GIS and Spatial Analysis in the Social Sciences* (Routledge, 2008), authored by Robert Nash Parker and Emily K. Asencio. Attendees will have the opportunity to purchase this new book at a discount.

The Instructor

Dr. Robert Nash Parker is Professor of Sociology at University of California–Riverside, and co-Director of the Presley Center for Crime and Justice Studies. Dr. Parker received his MA in Sociology from Indiana University and his Ph.D. in Sociology from Duke University. Dr. Parker's primary research interests include the effects of social structure and of alcohol on violence. Other research interests include research methodology, especially the application of GIS and spatial analysis to social science phenomenon. He is the author of dozens of research articles published in leading journals in sociology and criminology, as well as *Alcohol and homicide: A deadly combination of two American traditions* (1995) and *GIS and spatial analysis for the social sciences* (2008). In 2000, the Presley Center (of which he is co-Director) was designated a National Center of Excellence in Youth Violence Prevention Research by the Centers for Disease Control and Prevention.

Thursday, February 19, 2009 - 1:30-3:30 - IMU Walnut Room

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Department of Criminal Justice present

Workshop in Methods

GIS, Analytical Mapping, and Spatial Modeling: Sociology, Criminology, and Other Social Science Applications

The Workshop

GIS (Geographic Information Systems) is a powerful set of database computer mapping and related statistical techniques that can provide new insights into social science research. This workshop provides an introduction to the art and science of GIS, software for creating geo-spatial data bases, maps, and estimating spatially appropriate models. Topics to be addressed include pin map construction, geocoding of address based data, merging of traditional data with map databases and geospatial information, sources of geospatial data, univariate and multivariate thematic mapping, 3D mapping, and techniques for imbedding maps in documents and presentations. In addition, basic approaches to multivariate spatial modeling will be discussed, and examples of research and hypothesis testing using spatial data and models will be presented. This workshop is best for those with some minimal prior exposure to working in a GIS environment, including those who take part in the 90-minute Introductory GIS Workshop on February 19 (please see accompanying flier).

Topics and examples will be illustrated in a hands-on participatory manner, so that every participant can experience how to produce maps, geocode data, and estimate spatial models using data from the book *GIS and Spatial Analysis for the Social Sciences*, by Robert Nash Parker and Emily K. Asencio (Routledge, 2008). Each participant will have the opportunity to construct selected maps, databases, and models from the book using step by step instructions and scripts demonstrated by the author as the participants perform the same operations on their computer in the lab. There will be ample time for questions and discussion during and after the workshop, and each participant will receive a set of maps and scripts for producing the models and maps used in the workshop. Attendees may purchase the book at 20% off the retail price with no delivery charges from the author.

The Instructor

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Please RSVP Maria Kaylen (mkaylen@indiana.edu) by 5:00pm on February 19th if you wish to attend.

Friday, February 20, 2009 - 8:30-12:30 - SPEA 151