

2003 CSISS Summer Workshop Program and Scholarships

CSISS is accepting applications for positions and scholarships in its summer workshops. The application deadline is **31 March 2003.** Awards of up to \$500 may be made. Successful applicants will be notified by 11 April. Details on application procedures and workshop content are available at http://www.CSISS.org/events/workshops/.

CSISS is funded by the National Science Foundation under its program of support for infrastructure in the social and behavioral sciences. It is located at the University of California, Santa Barbara, and its programs focus on the methods, tools, techniques, software, data access, and other services needed to promote and facilitate a novel and integrative approach to social science.

Population Science and GIS

19–23 May 2003, University Park, State College PA

Topics covered: An overview on the uses of geospatial information technologies within the population sciences; applications to problems of urban poverty, neighborhood research, racial/ethnic diversity, maternal/child health, epidemiology, and population-environment; spatial analytical methods for demographic inquiry, issues in geospatial data handling, and using spatial analysis tools within GIS (ArcGIS 8.2, ArcView 3.3) for data visualization and modeling. No experience in spatial analysis required.

Instructors: Stephen Matthews (coordinator), Mark Gahegan, and David O'Sullivan (all of The Pennsylvania State University), Livia Montana (Macro International), Trudy Suchan (U.S. Census Bureau), David Wong (George Mason University), Frank Tanser (Medical Research Council, Durban, South Africa), and Paul Voss (University of Wisconsin, Madison)

Co-sponsors with CSISS and Host institution: The Pennsylvania State University (Population Research Institute, Social Science Research Institute, Department of Geography, and the GIS Council)

Accessibility in Space and Time: A GIS Approach

7-11 July 2003, Columbus OH

Topics covered: Measuring and analyzing accessibility in physical and social space, and in cyberspace; network approaches to connectivity and accessibility; graphical visualization and computational approaches to the analysis of individual space-time behavior; statistical modeling of spatial interaction patterns; and spatial optimization techniques. Applications and exercises will feature a range of social science issues. No experience in GIS required.

Instructors: Mei-Po Kwan (coordinator), Alan Murray, Morton O'Kelly, Michael Tiefelsdorf (all of The Ohio State University). **Co-sponsor with CSISS and Host institution:** Department of Geography, The Ohio State University (www.geography.ohio-state.edu)

Introduction to Spatial Pattern Analysis in a GIS Environment

28 July-1 August 2003, Santa Barbara CA

Topics covered: Introduction to concepts in GIS, spatial pattern analysis (exploratory and confirmatory), autocorrelation statistics, and geostatistics (including variogram analysis and kriging). Lectures cover research methods in spatial pattern analysis in the social sciences. Exercises include an introduction to ArcInfo 8.0 and data exploration of social, behavioral and economic phenomena. No experience in spatial analysis required.

Instructors: Arthur Getis (coordinator), John R. Weeks, and Jared Aldstadt (all of San Diego State University) and Michael Goodchild (CSISS, University of California, Santa Barbara)

Host institution: CSISS, University of California, Santa Barbara (CSISS.org/events/workshops/)

Geographically Weighted Regression and Associated Statistics

4-8 August 2003, Santa Barbara CA

Topics covered: Local statistics and local models, the basics of GWR with examples, statistical inference and GWR, GWR and spatial autocorrelation, extensions to the basic GWR framework and concept, applications of specialized GWR software (provided), and visualizing the output in ArcView 3.3.

Instructors: A. Stewart Fotheringham (coordinator), Chris Brunsdon, and Martin Charlton (all of The University of Newcastle) **Host institution:** CSISS, University of California, Santa Barbara (CSISS.org/events/workshops/)

ICPSR 2003 Summer Workshops

CSISS encourages participation in the workshops taught by Luc Anselin (University of Illinois, Urbana-Champaign) for the Interuniversity Consortium on Political and Social Research. See <u>www.icpsr.umich.edu/TRAINING/summer.html</u> for details on time, place, and registration.

Introduction to Spatial Data Analysis

Spatial data visualization and exploration, analysis of clusters and point patterns, global and local indicators of spatial autocorrelation, variogram analysis, and introduction to spatial regression analysis and related software. Familiarity with multivariate statistics and basic concepts of probability theory expected, and some knowledge of desktop GIS software required. See http://sal.agecon.uiuc.edu/courses/index.html#intro for details.

Spatial Regression Analysis

Spatial econometric analysis, incorporating spatial effects, maximum likelihood and other estimation procedures, specification searches, and implementation in standard software packages. Participant background in intermediate regression analysis or intermediate econometrics, and familiarity with introductory spatial data analysis, expected.

See <u>http://sal.agecon.uiuc.edu/courses/index.html#reg</u> for details.