Overview

The Department of Geography and Planning at the University of Toledo offers a quality multi-functional program that supplies service at the general educational and baccalaureate level to the university community, provides quality undergraduate and graduate programs, fosters theoretical and applied research in geography and planning, promotes multicultural understanding, complements interdisciplinarity work, and engages in community outreach. The department attracts students from a variety of backgrounds with diverse career goals. It welcomes and encourages this diversity as an enriching factor in the lives of both students and faculty.

We have developed an undergraduate and graduate curriculum that reflects balance in the theoretical, technical, and applied aspects of geography with a strong support for new technological and program areas. We provide students with the opportunity to have direct experience in technical support areas and with off-campus internship programs. Upon completion of the program, we expect students to have an in-depth knowledge of the traditions, history, and philosophical underpinnings of the disciplines of geography and planning; have strong micro and internet computer skills in cartography, computer graphics, location analysis, and multivariate analysis; and develop strong research, writing, and communications skills.

The department has a dedicated core of award-winning faculty. The faculty’s outstanding research and teaching efforts have been recognized by the University’s College of Arts and Sciences, the European Specialty Group of the AAG, the Micro-Computers Specialty Group of the AAG, and the Institute for British Geographers. The Faculty's wide-ranging expertise revolves around 6 major areas of specialization:

- GIS and Spatial Analysis (including location-allocation modeling)
- Urban and Regional Planning
- Urban-Economic Geography
- Environmental Geography/Planning
- Land Use Analysis and Transportation Geography/Planning
- Cultural, Behavioral, and Social Geography
- Remote Sensing

Over the years, the Department of Geography and Planning has maintained a proud tradition of teaching and research excellence. We endeavor to make the student educational experience intellectually rewarding and self-fulfilling. What follows is a more detailed description of the department's mission, goals and objectives; faculty research biographies; research facilities; and the department's economic development and community outreach focus. If you have any questions about our program or would like to visit please drop us a line.
Department of Geography & Planning

Degree Programs

The Geography and Planning Department offers both the B.A. and M.A. degrees. It also offers a GIS certificate and is the home department for the Ph.D. in Spatially Integrated Social Sciences.

Bachelor of Arts

The Geography and Planning Department offers an intensive BA program that combines professional work experience with a strong academic curriculum.

B.A. Program Coordinator - Dr. David J. Nemeth

Master of Arts

Students study issues that are critical to all living beings like global warming, economic development, resource management, land use conflict and population growth, to name a few.

M.A. Program Coordinator - Dr. Sujata Shetty

GIS Certificate

This specialized program offers a balance of theory and technical training in the application of Geographic Information Systems (GIS), Remote Sensing, Automated Cartography, and Global Positioning System technologies to problems extending over a wide range of disciplines.

Director - Dr. Kevin Czajkowski

Ph.D. in Spatially Integrated Social Sciences

The program is housed in the Department of Geography and Planning and is a cooperative effort between the Departments of Economics, Geography & Planning, Political Science & Public Administration and Sociology & Anthropology.

SISS Ph.D Program Coordinator - Dr. Kevin Czajkowski

Department of Geography & Planning
The University of Toledo
2801 W. Bancroft
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Snyder Memorial
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Fax: 419.530.7919
www.utoledo.edu/lss/geography/index.html
Department Faculty

**Bhuiyan Alam**  
Associate Professor  
Transportation Planning, GIS/Spatial Analysis, Watershed Management

**Kevin Czajkowski**  
Professor  
Ph.D. Coordinator  
Director of GISAG Center  
Director of GIS Certificate  
Remote Sensing, Meteorology

**Sharon L. Gaber**  
Professor  
President of The University of Toledo  
Urban Planning

**Frank J. Calzonetti**  
Professor  
Vice President Research  
Geography

**Daniel J. Hammel**  
Professor  
Department Chair  
Urban Geography and Housing

**Patrick L. Lawrence**  
Professor  
Environmental Geography

**Peter S. Lindquist**  
Professor Emeritus  
Digital Cartography, Location Analysis, Transportation, Spatial Analysis, GIS

**Neusa McWilliams**  
Associate Lecturer  
Latin America and Development

**David J. Nemeth**  
Professor  
Undergraduate Coordinator  
Cultural Geography

**Neil Reid**  
Professor  
Executive Director of the North American Regional Science Council  
Economic Geography

**M. Beth Schlemper**  
Associate Professor  
Cultural/Historical Geography, Geographic Education, Career and Professional Development

**Sujata Shetty**  
Professor  
M.A. Coordinator  
Director of the Urban Affairs Center  
Urban Planning and Design

**Yanjing Xu**  
Assistant Professor  
Geographic information systems, spatial analysis/statistics, public health, urban geography, economic geography and planning
Multidisciplinary Doctor of Philosophy Degree in Spatially-Integrated Social Science (SISS)

A cooperative venture between the departments of Geography and Planning, Economics, Political Science and Public Administration, and Sociology and Anthropology.

This program designed around the application of geographic information science, spatial statistics, spatial econometrics and spatial analysis to study the spatial dimension of human and social dynamics, including interaction of individuals and society, government, and market participants. The program encompasses a new body of statistical theory dealing with techniques and topics ranging from spatially-weighted regression analysis to error theory in spatially-distributed data, spatial interpolation and sampling methods, the effects of scale and resolution in geographically distributed data, and the confounding effects of boundary alignment and modifiable areal units in data organization and analysis.

These topics, coupled with spatial information processing technologies—notably in the form of Geographic Information Systems (GIS), remote sensing, digital cartography and related technologies—have served as an important catalyst for this emerging spatio-temporal research paradigm.

This approach is underscored by the Center for Spatially Integrated Social Science (CSISS):

CSISS recognizes the key role space plays in human society, and promotes research that advances our understanding of spatial patterns and processes. Cartographic visualization, geographic information systems (GIS), pattern recognition, spatially sensitive statistical analysis, and place-based search methodologies are the tools of spatially integrated social science (SISS) used to integrate knowledge across disciplines and paradigms. From research design to the interpretation of research findings, the use of SISS can advance understanding in nearly every domain of the social and behavioral sciences* (CSISS, 2003)

Examples cited by the Center for Spatially Integrated Social Science (CSISS) and by Goodchild, et al.**, of major topics which transcend disciplinary boundaries and follow the spatio-temporal model. Topics are listed as follows***:

<table>
<thead>
<tr>
<th>Environmental and climate change</th>
<th>Health and disease</th>
<th>Cultural analysis</th>
<th>Urban studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and economic inequality</td>
<td>Transportation</td>
<td>Criminal justice</td>
<td>Economic development</td>
</tr>
<tr>
<td>Social and business networks</td>
<td>Political redistricting</td>
<td>Community studies</td>
<td>Economic restructuring</td>
</tr>
</tbody>
</table>

*** Please consult pp. 142-148 in Goodchild, et al. (2000) and pp. C2-C5 in the CSISS Project Description for a more detailed treatment of these topics including cited work from the social science research literature.

Core Faculty

Bhuiyan Alam
April Ames
(College of Health and Human Services)
Kevin Czajkowski
(SISS Ph.D Program Coordinator)
Daniel J. Hammel
Patrick Lawrence
Peter Lindquist
Saatvika Rai
(Department Political Science)
David J. Nemeth
Oleg Smirnov
(Department of Economics)
Yanqing Xu

Contact Information

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Web

www.utoledo.edu/liss/geography/index.html
Spatially-Integrated Social Science (SISS) Admissions

Prospective students can apply to the program through the College of Graduate Studies at:
https://apply.utoledo.edu/prod/bwskalog_p_displainnew

The following materials must be submitted for application to the program:

- Graduate School Application Form
- Graduate Record Examination scores
- 3 letters of recommendation
- Transcripts
- Statement of Purpose (two pages with guidelines)
- TOEFL score for international students

When completing the graduate application for admission on the UT College of Graduate Studies Main Campus Applications webpage, students seeking admission to the Doctor of Philosophy in Spatially Integrated Social Science, please choose the following:

- College = Arts and Sciences;
- Department = Geography and Planning;
- Degree = Doctor of Philosophy

In addition to graduate college requirements applicants will be expected to hold a master's degree in a social science discipline, and to have completed graduate level courses in GIS and multivariate statistical analysis.

Funding Opportunities are available for students admitted into the program in the form of both teaching and research assistantships along with waiver of tuition.

Contact SISS Program Coordinator

Dr. Kevin Czajkowski  
Professor  
Office: SM 3034  
Phone: 419.530.4274 (Desk)  
419.530.2545 (Department)  
Email: kevin.czajkowski@utoledo.edu

Department of Geography & Planning  
2801 W. Bancroft, Toledo, OH 43606-3390  
Main Campus  
Mail Stop 140

www.utoledo.edu/llss/geography/index.html

SISS Program Requirements

It is anticipated that this program will require up to four years to complete. All course work will be completed in the first two years in residence. Research and dissertation will take place during the third and fourth year.

Prerequisites:
- M.A. or equivalent in Social Science discipline
- Successful completion of graduate-level multivariate statistics course
- Successful completion of 2 courses in geographic information systems

Degree Requirements:
- 60 Credits beyond the Bachelor’s Degree
- 36 Course Credits
- 24 Dissertation Credits

Core Course Requirements:
- SISS 7010: Spatial Statistics
- SISS 7020: Geographical Information Science in SISS
- SISS 8010: Foundations of Spatially Integrated Social Science
- SISS 8020: SISS Theory
- SISS 8030: Advanced Spatial Data Analysis
- SISS 8040: Research Design

Advanced Seminar Courses (Select 3)
- SISS 7030: Geo-Computation
- SISS 8150: Advanced Qualitative Analysis in SISS
- SISS 8160: Policy Evaluation and SISS
- SISS 8170: Space and Society: Critical Theory in SISS
- SISS 8180: Discrete Choice Spatial Process Modeling
- SISS 8190: Advanced Modeling Methods and Techniques in SISS
- SISS 8200: Spatial Perspectives on the Environment
- SISS 8210: Spatial Transport Modeling and Planning
- SISS 8920: Directed Readings in SISS
- SISS 8940: Seminar in Special Topics
- SISS 8960: Doctoral Dissertation

Elective Courses (Select 3)

Select from list of electives offered by the four participating departments: Geography and Planning, Economics, Political Science and Public Administration, Sociology and Anthropology.
Ph.D Assistantships inSpatially-Integrated Social Science (SISS)

The Department of Geography and Planning at the University of Toledo has a number of graduate research assistantships available for the spring and fall of 2013. Research opportunities exist in applications to geospatial technologies (Remote Sensing and GIS) in land cover and watershed modeling, temperature changes due to land use change, the impact of the environment on human health studies, GIS system development for intermodal freight transportation planning in the Great Lakes region and upper Midwest, and transportation modeling in a variety of applications.

The department offers Masters Degree in Geography and Ph.D. in Spatially Integrated Social Science. The SISS program is housed in the Department of Geography and Planning and is a cooperative effort between the Departments of Economics, Geography & Planning, Political Science & Public Administration and Sociology & Anthropology.

To apply to the graduate program at the University of Toledo, go to http://www.utoledo.edu/graduate/ to fill out an application specifying GEPL or SISS or go to the website of Geography and Planning Department for detailed information. The Department encourages applications from minorities, women, and persons with disabilities. The University of Toledo is an Affirmative Action/Equal Opportunity Employer M/F/D/V.

For more information contact:

Dr. Kevin Czajkowski
SISS Coordinator

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Phone: 419. 530. 4274 (Desk)
       419. 530. 2545 (Department)
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Core Faculty

Bhuiyan Alam
Transportation Planning, GIS/Spatial Analysis, Watershed Management

April Ames
(College of Health and Human Services)
Use of GIS in public/environmental health applications.

Kevin Czajkowski
Remote Sensing, Meteorology

Daniel J. Hammel
Urban Geography and Housing

Patrick Lawrence
Environmental Geography

Peter Lindquist
Digital Cartography, Location Analysis, Transportation, Spatial Analysis, Geographic Information Science

Saatvika Rai
(Department Political Science)
Environmental policy

David J. Nemeth
Cultural Geography

Oleg Smirnov
(Department of Economics)
Regional and Spatial Economics

Yanqing Xu
Geographic information systems, public health, urban geography, economic geography

Website

www.utoledo.edu/liss/geography/index.html
Master of Arts Program in Geography & Planning

**Geography** is a spatial science that looks at the ways humans interact with their environment in our continuously changing world.

**Planning** is an applied science based on decision-making, finding usable land and developing communities.

Students study issues that are critical to all living beings like global warming, economic development, resource management, land use conflict and population growth, to name a few.

UT's geography and planning majors use state-of-the-art Geographic Information Systems and Remote Sensing Laboratories that have over twenty-five computers in a networked environment. They conduct research at the Lake Erie Research and Education Center, the Ohio GIS Network and the OhioView Research Consortium on remote sensing. Also, students gain "real-world" experiences through our nationally recognized internship program where they work with planning agencies, community development organizations or companies applying geographic information system technologies.

What to expect when you graduate

Geography and planning graduates find jobs in urban and regional planning, economic and community development, site development, geographic information systems (GIS), market research, location analysis, transportation planning, international business, airline research, travel and tourism, census bureau, intelligence, meteorology, Peace Corps and education.

The Geography and Planning Department offers an intensive MA program that combines professional work experience with a strong academic curriculum.

The Department of Geography & Planning has an applied orientation with approximately 25 MA level graduate students, 25 undergraduate students, and a very successful community based internship program. The Department has an active research agenda with external funding exceeding $1 million this past year.

The University of Toledo is a comprehensive state institution enrolling approximately 20,000 students with an attractive main campus located in a suburban community.

All graduates students enrolled in the Geography Department's Masters Program are required to take and pass a comprehensive examination after their first year of studies. After completion of the comprehensive exam, the graduate student is then required to complete a Masters Thesis. A thesis committee of at least three professors are selected to help guide the student in the completion of their thesis.

Core Faculty

**Bhuiyan Alam**  
Transportation Planning, GIS/Spatial Analysis, Watershed Management

**Kevin Czajkowski**  
Remote Sensing, Meteorology

**Daniel J. Hammel**  
Urban Geography and Housing  
(M.A Program Coordinator)

**Patrick Lawrence**  
Environmental Geography

**Peter Lindquist**  
Digital Cartography, Location Analysis, Transportation, Spatial Analysis, Geographic Information Science

**Neusa McWilliams**  
Economic Development

**David J. Nemeth**  
Cultural Geography

**M. Beth Schlemper**  
Cultural/Historical Geography, Geographic Education, Career and Professional Development

**Sujata Shetty**  
Urban Planning and Design

**Yanqing Xu**  
Geographic information systems, public health, urban geography, economic geography

Website  
[www.utoledo.edu/llss/geography/index.html](http://www.utoledo.edu/llss/geography/index.html)
Master of Arts Program Admissions

Prospective students can apply to the program through the College of Graduate Studies at:
https://apply.utoledo.edu/prod/bwskalog.p_disploginnew

The following materials must be submitted for application to the program:

- Graduate School Application Form
- Graduate Record Examination scores (GRE), if a cumulative GPA is less than 2.70 for U.S. students
- 3 letters of recommendation
- Transcripts
- Statement of Purpose (two pages with guidelines)
- TOEFL and GRE score for international students

When completing the graduate application for admission on the UT College of Graduate Studies Main Campus Applications webpage, students seeking admission to the Master of Arts in Geography & Planning, please choose the following:

College = Arts and Sciences;
Major = Geography and Planning;
Degree = Master of Arts

In addition to graduate college requirements applicants will be expected to hold a bachelor's degree.

Funding Opportunities are available for students admitted into the program in the form of both teaching and research assistantships along with waiver of tuition.

Contact M.A Program Coordinator

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Email: sujata.shetty@utoledo.edu

Department of Geography & Planning
2801 W. Bancroft, Toledo, OH 43606-3390
Main Campus
Mail Stop 140

www.utoledo.edu/llss/geography/index.html

M.A Program Courses

GEPL 5180 - GIS Application
GEPL 5210 - Land Use Planning
GEPL 5490 - Remote Sensing Environment
GEPL 5500 - Digital Image Analysis
GEPL 5510 - Geographic Information Systems
GEPL 5520 - Analytical and Computer Cartography
GEPL 5530 - Principles of Urban Planning
GEPL 5550 - Community Economic Development Planning
GEPL 5570 - Land Development and Planning
GEPL 5580 - Location Analysis
GEPL 5600 - Urban Design
GEPL 5890 - Field Experience
GEPL 5910 - Directed Research
GEPL 5920 - Readings in Geography
GEPL 6100 - Philosophy and Methodology
GEPL 6150 - Seminar-Research Methods
GEPL 6160 - Seminar-Spatial Analysis
GEPL 6170 - Survey Research Methods in Planning and Geography
GEPL 6190 - Advanced GIS Seminar
GEPL 6300 - Seminar in Resource Management GEPL 6400 - Seminar/Environmental Perception GEPL 6530 - Urban/Regional Planning Applications GEPL 6550 - Seminar in Environmental Planning GEPL 6570 - Seminar in Neighborhood Revitalization GEPL 6580 - Urban Development and Housing
GEPL 6590 - Seminar-Health Care System Design
GEPL 6700 - Teaching Practicum in Geography
GEPL 6910 - Problems in Geography
GEPL 6930 - General Seminar
GEPL 6940 - Internship in Planning
GEPL 6960 - Thesis