Geospatial information sciences (GIS) use geospatial data to solve social and environmental problems and inform policy decisions. GIS graduates will master the knowledge and skills to spatially integrate data and computing resources for informed decision making in environmental modeling, business intelligence, precision agriculture, smart cities, public safety and community resilience, just to name a few.

Recent technological innovations have greatly enhanced our ability to collect and analyze massive environmental, social and economic data about places as well as individuals. Now more than ever before, unmanned aviation vehicles (UAV) equipped with remote sensors provide near-real time imagery whenever they are needed. LiDAR point clouds enable us to build high resolution 3D models of buildings, trees and terrains. Location-based services and mobile geospatial apps allow us to search information based on proximity to our locations and connect our social networks in both physical and cyber spaces.

From Microsoft and Apple to Google, and from the United Nations to indigenous communities, geospatial information science and technologies play an essential role for social-environmental inventory, planning, and forecasting of food, water, energy and health. These technologies include geographic information systems (GIS), the Global Positioning System (GPS) and satellite-based remote sensing. They penetrate virtually every aspect of our lives, from digital maps in cars to the maintenance of city infrastructure, precision agriculture and forest management. GIS has revolutionized traditional disciplines such as geography and inspired scientists from a broad range of fields to combine efforts on leading-edge research.

**Geospatial Information Sciences at UT Dallas**

The general BS degree requires 120 hours to graduate: 42 hours from the University’s core curriculum, 39 hours from the major, and 39 semester credit hours of electives.

**Career Opportunities**

GIS graduates will enjoy a wide variety of career options, as businesses and governments race to take advantage of technological advances and need geospatial workforce across multiple levels. They may work in areas such as public administration, smart cities, transportation planning, geospatial intelligence, emergency response, public health and environmental sustainability. Businesses also recruit GIS graduates, especially companies focused on marketing, site selection, logistics, driverless cars, real estate, internet of things and resource exploration.

Students who graduate with a BS may move on to graduate school, perhaps entering UT Dallas’ highly regarded MS or PhD geospatial programs, which were recently ranked among the top five in the nation. The University’s Career Center is an important resource for students pursuing their career.

**Marketable Skills**

The Bachelor of Science in Geospatial Information Science (GIS) Program equips students with fundamental understanding of the logical, scientific and technological principles underpinning GIS and the skills needed to solve real world geospatial problems within various settings including corporate, government, and nonprofit organizations using state-of-the-art GIS software packages.

- Students will be able to acquire, digitize, manage, manipulate, visualize and synthesize geographical data towards solving real world challenges.
- Students will be able to conduct fundamental spatial queries and analyses to provide decision support through spatial thinking, data analytics, and visual programming.
- Students will be able to effectively present results of analyses using hardcopy, digital or web maps, along with associated graphs, and tabular data.
Every new generation inherits a world more complex than that of its predecessors, which prompts a need for new thinking about public policies that impact people’s daily lives. In the School of Economic, Political and Policy Sciences (EPPS), we examine the implications of innovation and change for individuals and communities. The social sciences are where the world turns to for answers to the important issues of today and the future such as education and health policy, financial crises, globalization, policing, political polarization, public management, terrorism, and the application of geographical information sciences to study social, economic and environmental issues.

As an undergraduate in EPPS, you will have the opportunity to work with professors who are probing issues that will affect your future. You will develop the vital skills you need to thrive in a rapidly evolving, highly competitive job market. EPPS will prepare you for careers in government, non-profits and the private sector that enable you to make a real difference in the world of today and tomorrow. EPPS is at the forefront of leadership, ethics and innovation in the public and nonprofit sectors. Our students and faculty look forward to new opportunities to study and address the complex and evolving issues of the future. Research informs much of the instruction. The school has four centers of excellence:

- Center for Global Collective Action
- Texas Schools Project
- Institute for Urban Policy Research
- The Negotiations Center

### Degrees Offered

**Bachelor of Science and Bachelor of Arts**
- Criminology, economics, geospatial information sciences, international political economy, political science, public affairs, public policy, sociology

**Master of Science**
- Applied sociology, criminology, economics, geospatial information sciences, international political economy, social data analytics and research

**Master of Arts**
- Political science

**Master of Public Affairs**
- Public affairs

**Master of Public Policy**
- Public policy

**Doctor of Philosophy**
- Criminology, economics, geospatial information sciences, political science, public affairs, public policy and political economy

### Certificates

EPPS offers the following 15-hour graduate certificates, which generally can be completed in one year of part-time evening classes:

**Economic and Demographic Data Analysis:** focusing on the understanding and application of quantitative analysis of demographic and economic data.

**Geographic Information Systems (GIS):** focusing on the application of GIS in government, private sector and scientific areas.

**Geospatial Intelligence:** focusing on the application of geospatial ideas and techniques to national security and other intelligence activity.

**Local Government Management:** designed to broaden knowledge of important issues and approaches employed by professional local public administrators.

**Nonprofit Management:** designed to provide an overview of the nature and context of nonprofit organizations and develop competencies needed by nonprofit managers.

**Program Evaluation:** designed to provide students the opportunity to gain competencies in the design and implementation of program evaluations in fields such as education, health care, human services, criminal justice and economic development.

**Remote Sensing:** focusing on remote sensing and digital image processing.

### Fast-Track

The Fast Track program enables exceptionally gifted UT Dallas students to include master’s level courses in their undergraduate degree plans. Students who meet the requirements for admission to graduate school and the minimum GPA requirement for their major can take up to 15 hours of graduate level coursework that can apply toward their undergraduate and graduate level coursework. To take graduate courses in the Fast Track program upper-division undergraduates must have completed 90 semester credit hours and have approval to take graduate courses.

Learn more at [epps.utdallas.edu/criminology](http://epps.utdallas.edu/criminology)

### Contact Information

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