



Ashoka University: Empowering the Next Generation of Spatial Thinkers

As the world becomes increasingly data-driven, the ability to understand, analyze, and interpret spatial information has emerged as a critical skill across disciplines. Geographic Information Systems (GIS) is no longer confined to geography or urban planning; it is now shaping research and decision-making in environmental science, economics, public policy, archaeology, public health, business, and the humanities. Universities across the globe are responding by embedding GIS into their academic curricula, ensuring that students graduate with the analytical capabilities needed to solve complex, real-world challenges.

GIS education goes beyond teaching students how to create maps. It equips them with the ability to integrate diverse datasets, visualize patterns, uncover relationships, and generate actionable insights. In an era where Artificial Intelligence, remote sensing, satellite imagery, and big data are transforming every sector, GIS provides the essential spatial context that helps students connect information with place, people, and processes.

Among the institutions leading this interdisciplinary approach in India is **Ashoka University**, where GIS has evolved into a powerful academic and research tool that transcends traditional disciplinary boundaries.

Fostering GIS Education Across Disciplines

By making GIS accessible to students from diverse academic backgrounds, Ashoka University is preparing graduates who can leverage spatial intelligence to address some of society's most pressing challenges. GIS is integrated into teaching, research, and social impact initiatives rather than being limited to a standalone technical subject.

As mentioned by **Meghna Agarwala, Ph.D., Associate Professor, Department of Environmental Studies, Ashoka University**, courses on GIS and remote sensing are open to students from all majors, reflecting the university's philosophy of interdisciplinary education. Beyond dedicated GIS courses, spatial technologies are embedded into subjects such as earth systems, air pollution, and environmental modelling, enabling students to apply geospatial thinking within broader scientific investigations.

Students from humanities disciplines, including English, Archaeology, History, and Philosophy, are increasingly applying GIS for digital humanities projects. **Spatial analysis enables them to study historical landscapes, map archaeological sites, examine cultural heritage, and visualize historical narratives in entirely new**

ways. Many of these projects go on to become integral components of doctoral research.

Economics students incorporate geospatial datasets into econometric analyses, allowing them to better understand regional development, demographic trends, environmental influences, and socio-economic disparities. **By combining spatial data with statistical models, they gain deeper insights into policy and economic questions.**

For students in the **natural sciences, GIS often forms the foundation of research, capstone projects, and thesis work.** Spatial analysis supports investigations in environmental science, ecology, climate studies, biodiversity, and earth systems, helping students model complex natural processes and interpret environmental change.

In addition to courses for undergraduates, the university also offers GIS to students of the Young India Fellowship and to social practitioners through the Professional Education and Development Programme.

This interdisciplinary approach demonstrates how GIS can enrich learning across the sciences, social sciences, economics, and the humanities while fostering innovation, research excellence, and societal impact.

As governments, businesses, and research institutions increasingly adopt GIS, GeoAI, digital twins, and location intelligence, the demand for graduates with spatial thinking skills continues to grow rapidly. Universities have a crucial role to play in preparing this workforce by integrating GIS into mainstream and fostering a culture of using **GIS to Innovate. Integrate and Inspire.**

