Vidyasagar University

Midnapore-721102, West Bengal

POs & PSOs for the Post-Graduate Programme in REMOTE SENSING AND GIS

National Educational Policy – 2020

[w.e.f. 2025-26]

Department of REMOTE SENSING AND GIS_2025-26

Program Outcomes (POs)

The Master of Science (M.Sc.) degree is designed to produce postgraduate students who are highly skilled, knowledgeable, and responsive to the demands of their respective fields. The core program outcomes (POs) for M.Sc. graduates are as follows:

- Advanced Knowledge: Graduates gain an in-depth understanding of their specific field of study, including theoretical foundations, practical applications, and current trends.
- Research Skills: Students develop robust research skills, enabling them to formulate, design, and conduct scientific research. This includes proficiency in using modern research methodologies, critical analysis, and data interpretation.
- Technical Proficiency: They are trained in the use of advanced tools and technologies relevant to their discipline, enhancing their analytical and problem-solving capabilities.
- Communication Skills: M.Sc. graduates are equipped with the skills to effectively communicate complex information in a clear and concise manner, both in writing and verbally, to both specialist and non-specialist audiences.
- Ethical Practices: Students are instilled with a strong sense of ethical responsibility, ensuring that their professional activities are conducted with integrity and adhere to applicable standards and regulations.
- Professional Competence: Graduates demonstrate the ability to work independently and as part of a team, managing projects efficiently and making informed decisions that reflect expert knowledge and judgment.
- Innovation and Creativity: The program encourages innovation and critical thinking, enabling graduates to contribute novel solutions to problems in their fields.
- Lifelong Learning: Graduates are prepared to engage in continuous learning, adapting to changes and pursuing further educational opportunities to remain relevant in their professions.

These outcomes prepare graduates not only to excel in their immediate roles but also to contribute effectively to the advancement of their fields and to address broader societal challenges.

Programme Specific Outcomes

The Master of Science (M.Sc.) degree in Remote Sensing and Geographic Information Systems (GIS) equips students with a comprehensive skillset and knowledge base that prepares them for diverse professional roles and further research in the field. The specific program outcomes include:

- Technical Proficiency: Graduates will demonstrate advanced proficiency in the principles and applications of remote sensing and GIS. This includes competency in data acquisition, processing, analysis, and interpretation.
- Analytical Skills: Students will develop strong analytical skills, enabling them to tackle complex spatial problems using geospatial technologies. They learn to integrate multiple data sources and apply quantitative and qualitative analysis techniques.
- Problem-Solving Abilities: The curriculum fosters the ability to design and implement GIS projects and remote sensing campaigns that address real-world issues, emphasizing strategic problem-solving and decision-making skills.
- Research Capability: Graduates will be capable of conducting independent research, utilizing advanced tools and methodologies in remote sensing and GIS. This includes designing research proposals, managing projects, and synthesizing findings coherently.
- Technological Adaptability: Keeping pace with rapid technological advancements in the field, students will gain proficiency in the latest remote sensing software and GIS tools, ensuring they remain adaptable and industry-relevant.
- Communication Skills: Effective communication is pivotal, and graduates will be adept at presenting complex geospatial information to diverse audiences, including scientists, policymakers, and the general public.
- Professional Development: The program prepares students for a professional career in various sectors, including government, academia, private industry, and non-profit organizations, by inculcating a strong ethos of ethical practice and continuous professional development.
- Collaborative Experience: Through collaborative dissertations and projects with state and central government agencies, as well as renowned research institutes, students gain valuable teamwork and leadership experience.

These outcomes ensure that graduates not only enter the workforce as highly qualified GIS and remote sensing professionals but also contribute innovatively to their fields of expertise.