



Fostering Multidisciplinary

Five Year B.Sc. & M.Sc.

Integrated Geography Programme

With Specialization in Geoinformatics or Natural Disaster Management
(CBCS Designed under NEP-2020 Guidelines)



Why Integrated Geography Programme ?

- Students exposed to field work knowledge
- Students learn how to observe complex process
- Use of tools to measure geographic features
- Encourage them to imagine possible features
- Connects students to real world
- To understand man–environment relation
- Understand the physical, cultural and environmental features
- Help students to think more intelligently
- Learn water, air and soil inert–connected



The programme enables students to understand the world from local to global and make wise decisions about the sustainable planet and its resources, and become critical thinkers.

Integrated programme address the key issues of energy, water, biodiversity, climate, natural hazard, population, and much more.



The study involves field-oriented work, practical skills and hands-on experience. It helps to compete the competitive exams, global competence, and employability.



Exit Options



Level

Degree

3rd Year

B.Sc. Degree in Applied Geography

4th Year

B.Sc. Geography Honors with Research

5th Year

Integrated M.Sc. Geography (*Geoinformatics / Natural Disaster Management*)

Programme Structure

Sem	Core Course	Elective	VoC	Open Elective	Skill based
I	Principles of Geomorphology Basics of Cartography			Mathematics for Geography / Fundamentals of Remote Sensing	Cartographic Techniques
II	Introduction to Climatology Physical Geography			Spatial Statistics / Introduction to Geographic Information Systems (GIS)	
III	Introduction to Oceanography Fundamentals of Human Geography			Programming Fundamentals / Geography of India	Utility Mapping
IV	Regional Geography of India Urban Geography			Python Programming / Geography of Karnataka	
V	Fundamentals of Remote Sensing Population Resources & Dynamics		Mobile Asset Mapping		Drone Mapping
VI	Environmental Geography Fundamentals of Geographic Information Systems		Open Source GIS		
VII	Advance Geomorphology Advance Climatology Geo-surveying	Settlement Geography / Spatial Database Management / Disaster Forecasting and Planning Cultural Geography Geoinformatics for Watershed Analysis\ Hydro-Meteorological Hazards			
VIII	Sustainable Soil Resource Management Agriculture & Food Security Climate Change: Vulnerability and Adaptation	Political Geography / Landscape ecology and Landuse Planning/ Coastal Hazard Management Karnataka Geography / Geoinformatics for Coastal Zone Management / Land Degradation & Desertification Economic Geography / Spatial Analysis and Modelling / Anthropogenic Hazard and Management			
	Sustainable Water Resource Management Sustainable Forest Resource Management Regional Planning & Development	Trade and Transport Geography Tourism Geography Biogeography		Climate Action	
With Specialization in Geoinformatics					
IX	Remote Sensing for Water Resource Management GIS for Water Resource Management GIS Customization	Geoinformatics for Forest Resource Management Web-GIS		Climate Action	
With Specialization in Natural Disaster Management					
	Geospatial Application for Disaster Management Geoinformatics for Biological Disaster and Public health Management Disaster Risk Reduction & Response	Policy, Institution, Governance for Disaster Management Geoinformatics for Drought Monitoring in India		Climate Action	
X	Research Project Field Visit Study Tour Internship				



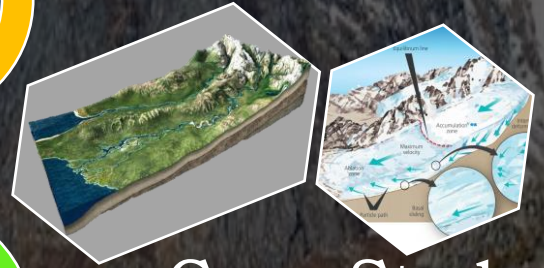
Blended Teaching & Learning Methods



Lectures



Discussions



Case Study



Role Playing



Team Work



Study Tour



Field Visits



Academic Interface



Internship



Research Project



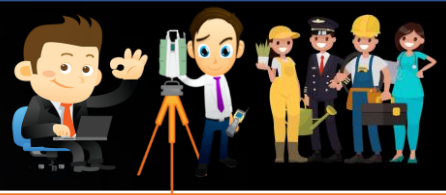


Learning Outcomes

- Able to understand the basic concepts
- Procure field based knowledge
- Expertise in spatial tools & techniques
- Perform statistical techniques
- Apply remote sensing techniques
- Capable of GIS based mapping techniques
- Handling geo-surveying tools and methods
- Acquire disaster related techniques
- Gain a knowledge on Information technology
- Proficient in sustainable development goals
- Explore Global, national and regional initiatives
- Develops best practicing methods
- Improves critical thinking and strategies
- Having problem solving capability
- Skilled in Analytical reasoning
- Able to enhance research skills
- Foster scientific reasoning
- Self & time management
- Cultivate moral ethical values
- Develop leadership readiness



Placements @



B.Sc. & M.Sc. Integrated Programme

Specialization

Geography

- Survey of India
- Forest Survey of India
- Soil & Land Use Survey of India
- ICAR-Indian Institute of Rice Research, Hyderabad
- National Bureau of Soil Survey & Land Use Planning, Nagpur & Bangalore
- Census of India, New Delhi
- DRDO, New Delhi
- UPSC / KPSC
- Colleges / Universities

Geoinformatics

- National Remote Sensing Application Centre (NRSC)
- North Eastern Space Applications Centre (NESAC)
- State GIS Development Cell
- Public Welfare Department
- EIA Agency
- MNC's Like
- Esri India, New Delhi
- Edgemap Softwares
- Magnasoft Consulting
- ROLTA, Mumbai
- RMSI
- Cognizant

Natural Disaster Management

- National Institute of Disaster Management, New Delhi (NIDM)
- Karnataka State Disaster Management Authority (KSDMA)
- Indian Meteorological Department
- Non-Governmental Organization
- Fire and Safety Department
- EIA Agency
- MNC's Like
- Esri India, New Delhi
- ROLTA, Mumbai

Cartographer – Nature Conservation Officer – School Teacher – Sustainability Consultant – Tourism Officer – Transport Planner – Assistant Professor – Geography Researcher

GIS Field Surveyor – GIS Trainee – GIS Engineer – GIS Developer/ Manager – Environmental consultant – Urban planner – Landscape architect – Scientists

Disaster Manager – Natural Disaster Scientist – Disaster Recovery Specialist – Disaster Recovery Coordinator – Emergency Management Policy Advisor

Technical Skills



GIS Software Skills (Assessing, Analyzing and Mapping)

Geo – surveying (Cartography, Globe, Total Station, Drone and DGPS)

Remote Sensing Techniques (Aerial and Satellite imageries)

Research Techniques (Hypothesis, Investigates, examine and reporting)

