



**INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
REGIONAL CENTRE BHOPAL**  
**Practical Counseling Schedule for MSC Geography Programme**  
**LSC- IGNOU Study Centre 1506 Holkar Science College Indore**  
**Department of Geography**

**Practical Schedule MGGL 03: Geospatial Analysis- Laboratory Exercises**

<b>Day</b>	<b>Session 1 Time 9:30 AM TO 11:30 AM</b>	<b>Session 2 Time 11:30 TO 1:30</b>
07th February 2026 (Saturday)	Exercise 1: Familiarisation i) Familiarisation with GIS DATA II) Spatial Data Infrastructure  Exercise 2: Exploring Software i) Familiarisation with Software ii) Exploring projection, coordinates scales and measurements	Exercise 3: Data Preparation I) Georeferencing Raster and Vector data  Exercise 4: Data Generation -I i) Familiarisation with Raster and vector Models, Data Sources ii) Data Acquisition from various sources iii) Digitisation, Editing and error removal
08th February 2026 (Sunday)	Exercise 5: Data Generation-II I) Data Creation: Spaghetti and Topology, Point, Line, Polygon, Object Based Data and Geodatabase II) Exploring Cloud Sourcing and Big Data	Exercise 6: Data Integration i) Integration of Remote Sensing and GPS/GNSS Data and field data into GIS Environment ii) Data integration from Various Sources
09th February 2026 (Monday)	Exercise 7: Data Integration & Updation i) Spatial and Attribute Data Integration ii) Updation, Manipulation, Interpolation & Exploration  Exercise 8: Analysis and Query –I I) Attribute Based and Spatial Data Query- Arithmetic and Boolean Operations ii) Spatial Overlays	Exercise 9: Analysis and Query –II i) Multicriteria / Multiparameter Analysis and Modeling  Exercise 10: Visualisation and Output Generation i) Display and Visualisation- Cartographic Principle, Symbolisation and Layout- Static and Dynamic ii) Output Generation –Digital and Analog
10th February 2026 (Tuesday)	Exercise 11: Surface Geometry and soil erosion Modeling -I Tessellation and Triangulations, DEM, Gradient, Slope and Aspect	Exercise 12: Surface Geometry and soil erosion Modeling-II i) DTM Generation ii) Soil Erosion Modeling
11th February 2026 (Wednesday)	Exercise 13: Land use /Land cover Mapping and Land Resources Development Plan- I i) Land use /Land cover Mapping Accuracy Assessment Exercise 14: Land use /Land	Exercise 15: Crime Analysis and Modeling-I i) Creation of Crime Data, Crime Mapping and Pattern Analysis ii) Density and Hotspot Analysis Exercise 16: Crime Analysis and

	<p>cover Mapping and Land Resources Development Plan- II</p> <p>i) Exploring Land Capabilities and Land and preparation of Land Resources Development Plan</p>	<p>Modeling-II</p> <p>i) Predictive Modeling with Physical – Socio -economic and other Associate Factor</p>
12th February 2026 (Thursday)	<p>Exercise 17: Network Analysis-I</p> <p>i) Data Preparation, OD Matrix Generation</p> <p>ii) Optimum Path Tracing</p> <p>Exercise 18: Network Analysis-II</p> <p>i) Accessibility connectivity and flow Analysis</p>	<p>Exercise 19: Hydrological Analysis &amp; Modeling –I</p> <p>i) Data Preparation</p> <p>Exercise 20: Hydrological Analysis &amp; Modeling –II</p> <p>i) Hydrological Modeling : Run-off Estimation</p> <p>ii) Network and Density Estimation</p>
13th February 2026 (Friday)	<p>Exercise 21: Exploring Web -GIS and Information Portals part-I</p> <p>i) Exploring Web GIS, Google Earth, Bhuvan, VEDAS, India WRIS</p>	<p>Exercise 22 Exploring Web -GIS and Information Portals part-II</p> <p>i) Integration of GIS with Web Data</p>
14th February 2026 (Saturday)	<p>Exercise 23 Project in Natural Resources and Management/ e-Governances and Planning/ Transport; Business, Utility and Facilities/ Environmental Studies</p> <p>Exercise 25: Project in Natural Resources and Management/ e-Governances and Planning/ Transport; Business, Utility and Facilities/ Environmental Studies</p>	<p>Exercise 24: Project in Natural Resources and Management/ e-Governances and Planning/ Transport; Business, Utility and Facilities/ Environmental Studies</p> <p>Exercise 26: Preparation of Practical Records</p>
28 <sup>th</sup> February 2026 (Saturday)	<p>Examinations</p> <p>10:00AM TO 01:00PM</p>	Viva Voce

**Dr. Sanjay Vyas**  
**Coordinator 1506 Indore**