



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

Day	Session 1 Time 9:30 AM TO 11:30 AM	Session 2 Time 11:30 TO 1:30
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

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

Dr. Sanjay Vyas
Coordinator 1506 Indore