

LESSON PLAN

Session: 2025-26

Name: Dr. Nisha Malik

Class: M.A Geography, Semester: 3rd

Assistant Professor Geography

Subject: Remote Sensing

Month	Syllabus
28 July to August	Introduction, development and applications of Remote Sensing technology; Electromagnetic radiation and remote sensing; Energy interactions in atmosphere; Energy interactions with earth surface features; Spectral signatures.
September	Basic concepts and advantages of– Optical Remote Sensing; Thermal Remote Sensing; Microwave Remote Sensing; Hyper spectral Remote Sensing; Remote Sensing below Ground Surface; Ground investigations in Remote Sensing.
October	Platforms: Airborne and Space borne; Sensors: Passive and Active; Image data characteristics: Spatial, Spectral, Radiometric and Temporal. (Test) PPT
November 15th	History and development of Indian Space Programme; General Satellite Programmes: IRS Satellite Series, INSAT Series, Gagan Satellite Navigation System; Extra-terrestrial exploration: Lunar exploration, Mars exploration, Solar probes; International co-operations.
Till Exam	Revision

LESSON PLAN

Session: 2025-26

Name: Dr. Nisha Malik

Class: M.A Geography, Semester: 3rd

Assistant Professor Geography

Subject: Geographic Information System

Month	Syllabus
28 July to August	Introduction to GIS: Meaning, Concept, History and development; Scope and significance of GIS; Components and basic functions of GIS; Recent trends in GIS; GIS education in India: Issues, progress and challenges; Significance of GIS in geography.
September	Geographical data characteristics and sources: Nature, Types and sources; Accessibility and availability; Spatial database models: Hierarchical, Network, Geo-relational, Object based and field-based model; Spatial data model: Raster and vector.
October	Spatial analysis: Raster & vector overlay; Buffer analysis; Digital surface model: DSM,DTM&DEM, Spatial Interpolation: IDW, Spline & Kriging methods; Network analysis. (Test) PPT
November 15th	Applications of GIS in regional development & planning, Agriculture, Hydrology, Urban and environmental studies.
Till Exam	Revision

LESSON PLAN

Session: 2025-26

Name: Dr. Nisha Malik

Class: M.A Geography, Semester: 1st

Assistant Professor Geography

Subject: Statistical Methods in Geography

Month	Syllabus
August	Statistics, Geography and Statistics; Significance of Statistics in geographical studies; Primary and Secondary Data; Levels of data measurement: Nominal, Ordinal, Interval, and Ratio.
September	Measures of Central Tendency: Arithmetic Mean, Median, Mode and their geographical significance; Centro graphic techniques: Mean Centre, Median Centre and Standard Distance.
October	Measures of dispersion and concentration: Mean deviation, Standard Deviation; Coefficient of Variation, Lorenz Curve and Gini's Coefficient; Location Quotient. (Test) PTP
November 15th	Correlation and regression: Scatter diagram, correlation by Spearman's Rank Difference and Karl Pearson's Product Moment, Significance testing of Correlation; Regression analysis regression equations Construction of regression line, computation of residuals and mapping.
Till Exam	Revision