

H.L.G. GOVT. COLLEGE TAURU, DISTT. NUH (HRY.)
P.G. DEPARTMENT OF GEOGRAPHY
Lesson Plan for the Session 2025-26 Odd Semester (under NEP-2020)

Name of Teacher: **Dr. Mukesh Kumar**, Professor of Geography

Learning Objectives	The main objectives of the course are designed to address emerging areas of recent technique-based, skill-oriented practical learning. It aims to build professional competence and enhance students' understanding and abilities in Remote Sensing and GIS in as per the requirements of present modern era. The course also provides strong practical knowledge of Aerial Photography, Remote Sensing, various types of imageries of Satellites, GPS & Total station surveying etc. for the Geospatial studies and analysis, in line with the objectives of intensive learning under NEP-2020.
Learning Outcomes	The Students will be able to develop the skills of acquisition and measurements on aerial photographs, buildup the capability of reading and interpreting physical and socio-economic features on photographs. They will be able to work on different digital data products and software for the processing of satellite data. It will Enhance the skills of the processing and extracting features from satellite imageries.
Teaching Methodologies used	ICT Based teaching-learning; PPT, A/V lectures, Field based and Laboratory teaching, Advanced tools Aerial Photographs, Stereoscope and Stereovision, Remote Sensing & GIS, Satellite images, GPS and Total Station, GIS softwares, field works, Assignments, lab tests and Project.

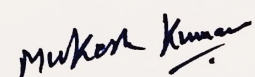
M.A. GEOGRAPHY 3RD SEM.

Paper: Practical- Fundamentals of Remote Sensing

Sr	Class & Paper	Month/ week	Topic/Chapters to be Covered	Academic activities to be organized
1	Fundamentals of Remote Sensing Practical Paper 241/GEO/CC303 (days 3-4) Group-I P-3-6	August 2025	▪ Aerial Photography: Introduction. ▪ Aerial Photographs: Meaning, Types, Scale, Identification of Fiducial Marks, Principal Point, Conjugate Principal Point, Flight line and Overlapping. ▪ Elements of image interpretation; ▪ Identification of Physical and Cultural features on aerial photographs.	Familiarization and working with Aerial Photographs, Working with Stereoscope File Preparation
2	Fundamentals of Remote Sensing Practical Paper 241/GEO/CC303 (days 3-4) Group-I P-3-6	Sept. 2025	▪ Land use/ Land cover mapping on aerial photographs. ▪ Stereo-Vision and Stereographs, Photo mosaic. 3-D terrain Analysis on stereo-pair Aerial Photographs ▪ Remote Sensing: Introduction. ▪ Electromagnetic radiation and spectrum, atmospheric windows and spectral reflectance curve	Feature identification on Aerial Photographs Basic functions of Remote sensing File Preparation

3	Fundamentals of Remote Sensing Practical Paper 241/GEO/CC303 (days 3-4) Group-I P-3-6	Oct. 2025	▪ Satellite: Types, understanding data sensor/data availability. ▪ Satellite data: Image Types, resolution; data acquisition/downloading and vector creation from ISRO-Bhuvan/Bhoonidhi, Google Earth, GLOVIS/ USGS, OSM etc. ▪ Familiarisation with Geo-Spatial softwares: Arc-GIS, QGIS etc.. ▪ Annotation of Satellite images	Familiarization with Satellite data types, GIS softwares File Preparation
4	Fundamentals of Remote Sensing Practical Paper 241/GEO/CC303 (days 3-4) Group-I P-3-6	Nov. 2025	▪ GPS and GCP point capturing from a GPS device or mobile ▪ Georeferencing by adding GCP's and Projection on Satellite images and Toposheets. ▪ Preparation of FCC, comparison of features on true colour, Panchromatic and FCC ▪ Attribute data and its integration with Vector data and Diagrammatically presentation of attribute data- Dot map, Choropleth map, Isopleths map, Pie, Bar graphs, Line graphs, Sphere. ▪ Total Station surveying	Familiarization with GPS, survey and its functions, Imagery handling TS surveying File Preparation And Checking
5	Fundamentals of Remote Sensing Practical Paper 241/GEO/CC303 (days 3-4) Group-I P-3-6	Dec. 2025	▪ Revision and Practical work ▪ File checking ▪ Examination	File Preparation And Checking


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 (Signature)
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