

KTSP Mandals
Hutatma Rajguru Mahavidyalaya, Rajgurunagar
Tal – Khed, Dist. – Pune, Pin – 410505
Department of Geography
Programme Outcomes and Course Outcomes
Academic Year 2026-2027
(FYBA/SYBA/TYBA 2024 & 2025 Pattern (NEP 2020))

B. A. Geography Programme Outcomes

After successfully completing B.A. Geography Programme students will be able to:

PO1: Apply qualitative and quantitative research techniques to gather and analyse data on social, cultural, and ecological problems.

PO2: Apply clear written and oral communication skills to communicate results of research.

PO3: Demonstrate connections between everyday life at the local scale and the larger economic, social, and/or environmental forces that network them into a global community.

PO4: Evaluate cultural, social, and environmental processes with a particular focus on space and place, critical theory, practical application, analysis and/or social justice.

PO5: Think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future.

PO6: Present completed researches, including an explanation of methodology and scholarly discussion, both orally and in written form and, wherever possible, utilize cartographic tools and other visual formats.

PO7: Demonstrate general understanding of how the physical environment, human societies, and local and global economic systems are integral to the principles of sustainable development.

PO8: Demonstrate acquisition of Weather chart/map, map aerial photograph and Image reading skill.

PO9: Apply Remote sensing concepts, techniques and their application.

PO10: Serve as a Geographer and work as a surveyor in various Govt. Departments.

PO11: Work as a teacher in schools and high schools.

PO12: Serve as conservator in forest, Soil, Agri, Departments.

PO13: Work in disaster and water resources management.

PO14: Serve in forest department as forest conservator.

PO15: Serve in cartographer in map making divisions of Government and work in NGOs.

PO16: Can Prepare for Competitive exams.

Programme Outcomes of B. A. Geography

After completing B. A. Geography programme will have

PSO1: Demonstrate and understanding of principles and theories of Geography. This include Geomorphology, Economic Geography, Human Geography, Agriculture Geography.

PSO2: Apply Statistical Techniques of Spatial Analysis.

PSO3: Demonstrate ability to apply knowledge learned in classroom to set and perform simple laboratory experiments in geography.

PSO4:- The student develops theoretical, applied and computational skills.

PSO4:- Be able to use and analyze maps.

PSO5 :- Students will understand global and regional patterns of cultural, political, economic and agricultural institutions.

PSO6:- Students will have a general understanding of the various theoretical and methodological approaches in both physical and human geography and be able to develop research questions and critically analyze both qualitative and quantitative data to answer those questions.

PSO7:- To understand the scope and content of commercial geography in relation to the spatial distribution of resources.

PSO8: Develop research questions and critically analyse both qualitative and quantitative data to answer those questions using various theoretical and methodological approaches in both physical and human geographies.

PSO9: Develop a general understanding of global human population patterns, factors influencing the distribution and mobility of human populations including settlement and economic activities and networks, and human impacts on the physical environment.

PSO10: Read, interpret, and generate maps and other geographic representations as well as extract, analyse, and present information from a spatial perspective

Course outcomes – Geography syllabus

Class	Sem.	Paper	Subject	Course Outcome
FYBA	I	Major Subject Theory Paper GEO-101-T	Geography	CO1. To introduce the students to the basic and latest concepts in Physical geography. CO2. To acquaint the students with

		Introduction to Physical Geography		the utility and application of Physical geography in different regions and environment. CO3. To make the students aware about Earth system (Lithosphere, Atmosphere, Biosphere and Hydrosphere) CO4. Students will understand the concept of place and how it is connected to people's sense of belonging to the physical environment, landscape and culture. CO5. Students will be exposed to the nature of physical systems such as geomorphologic processes and natural hazards. CO6. Students will be able to read and interpret information on different types of physical features. CO7. The geographical maturity of students in their current and future courses shall develop. CO8. Describe what Geography and Physical Geography are. CO9. Understand the physical principles and processes governing the circulation and characteristics of the atmosphere CO10. Understand the principles of geomorphology and the processes that shape the landscape. CO11. Understand the directional and location systems employed on the surface of the Earth CO12. To understand the dynamics of the atmosphere, the ocean and the overall climatologically system.
FYBA	I	Major Subject Practical Paper GEO-101-T Practical's in	Geography	CO1. Students will be able to define Geography and its Branches. Nature and Scope. CO2. Students will be able to describe the Earth's Interior: Structure and Composition.

		Physical Geography		CO3. Students will be able to explain and Critically Examine the Wegener’s Continental Drift Theory. CO4. Students will Differentiate Between Weather and Climate. CO5. Students will explain the layers and Understand the Composition and Structure of the Atmosphere. CO6. Students will identify and analyse the Factors Affecting the Horizontal Distribution of Temperature. CO7. Students will Describe the General Structure of the Ocean Floor. CO8. Students will understand the Movements of Ocean Water. CO9. Students will define Tides: Meaning, Causes, and Types.
FYBA	I	Major Subject Theory Paper GEO-151-T Introduction to Human Geography	Geography	CO1. Students will develop a concrete understanding of the concepts of “space,” “place” and “region” and their importance in explaining world affairs. CO2. Students will understand general demographic principles and their patterns at regional and global scales. CO3. Students will be able to locate on a map major physical features, cultural regions, and individual states and urban centers. CO4. Students will acquire an understanding of and appreciation for the relationship between geography and culture. CO5. Students will have a general understanding of global human population patterns, factors influencing the distribution and mobility of human populations. CO6. Students will be able to think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future. CO7. Students can Describes what

				geography and human geography are and also understand population dynamics and migration pattern. CO8. Students will understand the settlement pattern of Rural and Urban settlements. CO12. Students can understand the urbanization process, theories of urbanization respective to India and Maharashtra. CO9. Students will be able to understand types of agriculture. CO10. Students will be analyzing the factors affecting on agricultural activity. CO11. Students will be able to understand the problems of farmers and Indian Agriculture
FYBA	I	Major Subject Practical Paper GEO-151-T Practical's in Human Geography	Geography	CO1. Students will understand the Understand Qualitative Relief Representation Techniques. CO2. Students will be able to develop Skills in Hill Shading for 3D Visualization. CO3. Students will be proficient in using and utilize Color Shading to Illustrate Elevation Gradients. CO4. Students will learn and apply Quantitative Relief Representation Methods. CO5. Students will develop skills in interpreting contour lines and applying them to represent the elevation and shape of terrain features. CO6. Students will be able to analyze and represent slopes using contours, demonstrating an understanding of terrain variations. CO7. Students will learn to represent key landforms through the accurate placement and interpretation of contour lines.

				CO8. Students will be capable of interpreting complex landforms and slopes by analyzing contour patterns and their relationships to the terrain.
FYBA	I	Open Elective OE-101-GEO Geography of Tourism	Geography	CO1. To understand the diverse nature and broad scope of Tourism Geography. CO2. To provide students with a broad understanding of recent and emerging types of tourism. CO3. To gain insights into specialized forms of tourism and understand their characteristics and sustainability considerations associated with them. CO4. To explore the socio-cultural determinants of tourism. CO5. To classify and analyse diverse tourism trends, enabling the students the dynamic nature of the tourism industry.
SYBA	III	Major Core GEO-201- MJ Fundamentals of Geomorphology	Geography	CO1. Define geomorphology and explain its scope, including the relationship with other Earth sciences. CO2. Identify the main branches of geomorphology and their applications. CO3. Evaluate the significance of geomorphology in understanding landscape formation, CO4. Environmental processes and human activities. CO5. Explain the origin of continents and oceans using the theories of plate tectonics and sea floor spreading. CO6. Classify slow and rapid crustal movements and their effects on the Earth's surface. CO7. Apply knowledge of tectonic processes to understand landform development, including mountain ranges, valleys, and faults. CO8. Identify and describe the major agents of erosion and deposition, including rivers, sea waves, and wind. CO9. Relate the processes of erosion and deposition to real-world

				geomorphological features and landscapes. CO10. Explain the concept of applied geomorphology and its relevance to real-world CO11. Apply geomorphological knowledge to environmental hazard assessment.
SYBA	III	Major Core GEO-202-MJP Practicals in Fundamentals of Geomorphology	Geography	CO1: Demonstrate proficiency in interpreting SOI topographic sheets to identify geomorphological features such as relief and contour patterns CO2: Recognize and explain the formation and characteristics of fluvial/coastal landforms using topographic maps or Google Earth. CO3: Measure and interpret slope angles to understand their implications for geomorphic processes and landscape development CO4: Identify and analyze drainage patterns and explain their geomorphological significance, emphasizing their role in watershed and terrain evolution CO5: Create and interpret cross-sectional profiles of landscapes to understand elevation changes, landform processes, and spatial relationships CO6: Apply Strahler's method to classify stream orders and assess drainage basin characteristics effectively CO7: Use SOI topographic maps and GPS devices to map landforms accurately during field excursions CO8: Conduct field surveys and Compile a detailed report summarizing field observations, including mapped data, identified landforms, and geomorphological interpretations
SYBA	III	VSC GEO-221- VSC Introduction to Cartography Theory	Geography	CO1: Understand the fundamental concepts in cartography. CO2: Recognize the importance and application of cartographic techniques

				in understanding map, map scale, and projection CO3: Appreciate the importance of skill development and education in cartographic techniques.
SYBA	III	VSC GEO -222 -VSC Introduction to Surveying Theory	Geography	CO 1 : Grasp fundamental surveying principles and the importance of modern techniques. CO 2 : Develop skills in linear, areal and vertical measurements of land. CO 3 : Acquire a comprehensive understanding of surveying instruments. CO 4 : Gain employment opportunities in land measurement and surveying.
SYBA	III	FP / OJT / CEP GEO -231-FP Field Visit and Report Writing Field Project	Geography	CO1: Gain practical exposure by conducting field visits to various geographical locations, observing and analyzing natural, urban, and socio-economic environments. CO2: Develop essential research skills by applying field-based data collection techniques, mapping, surveys and interviews. CO 3: Improve technical writing skills by preparing structured field report that includes research objectives, methodology, data analysis, and observations. CO 4: Cultivate industry-relevant skills through hands-on training, field exposure, and interactions with professionals in education, research, and various sectors.
SYBA	III	Minor GEO -241-MN Physical Geography of India Theory	Geography	CO 1: Remember the location and physical features of India. CO 2: Understand and explain the drainage system of India. CO 3: Understand the characteristics of major seasons of India CO 4: Understand the major soil and forest types and their distribution.
SYBA	III	Minor GEO -242 -MNP Practicals in Map Reading Practical	Geography	CO 1: Develop practical skill and use of map scale and projection. CO 2: Understand the new techniques, accuracy and skills of map making. CO 3: Understand and prepare

				different kinds of maps. CO 4: Recognize basic themes of map making.
SYBA	III	III Minor OE -201-GEO Political Geography Theory	Geography	CO 1: Understand how Geography affects politics and how politics affects Geography. CO 2: Understand the basic concepts in Political Geography. CO 3: Distinguish between nation, state, frontier and boundaries. CO 4: Understand major political conflicts and issues of the India and World.
SYBA	III	IKS GEO- 201- IKS Indian Geographical Knowledge Theory	Geography	CO 1: Understand the IKS. CO 2: Utilize the multifaceted nature of IKS and its importance in contemporary society. CO 3: Explain the Geographical knowledge in vedas, vedangas, Upavedas and Puranas. CO 4: Acquire the development of Indian Geographical knowledge and its importance in contemporary society. CO 5: Study Indian Geographical knowledge in detail and explore their application potential.
SYBA	IV	Major Core GEO-251-MJ Introduction to Population and Settlement Geography Theory	Geography	CO 1: Understand the core concepts and interdisciplinary nature of population and settlement Geography. CO 2: Analyze population growth and its determinants. CO 3: Evaluate population theories and policies. CO 4: Understand settlement distribution and growth dynamics. CO 5: Understand challenges of urbanization and settlement planning.
SYBA	IV	Major Core GEO- 252-MJP Practicals in Population and Settlement Geography Practical	Geography	CO 1: Analyze population growth and mortality trends using quantitative techniques. CO 2: Apply methods to assess population density and projection CO 3: Utilize quantitative models in settlement studies. CO 4: Integrate theory and practice through case studies.

SYBA	IV	VSC GEO-271-VSC Practicals in Cartography Practical	Geography	CO 1: Understand and explain the fundamental concepts of maps, including their classifications and the importance of map scales in cartography. CO 2: Apply various cartographic techniques to represent geographical data visually, utilising appropriate methods and tools for accurate portrayal. CO 3: Construct different types of maps and diagrams, demonstrating proficiency in using thematic mapping techniques and map projections. CO 4: Critically analyze and interpret maps, evaluating their effectiveness in conveying information and making geographical decisions.
SYBA	IV	VSC GEO - 272 -VSC Practicals in Surveying Practical	Geography	CO 1: Understand fundamental surveying principles and the importance of modern techniques. CO 2: Develop skills in linear, areal and vertical measurements of land. CO 3: Acquire a comprehensive understanding of surveying instruments. CO 4: Gain employment opportunities in land measurement and surveying.
SYBA	IV	FP/OJT/CEP GEO-281-CEP Community Engagement Programme Practical	Geography	CO 1: Analyze and assess the needs and challenges faced by a community through fieldwork and surveys. CO 2: Design comprehensive and feasible engagement programmes to address specific community issues. CO 3: Demonstrate the ability to execute and monitor community engagement projects effectively. CO 4: Evaluate the impact of community initiatives using qualitative and quantitative methods. CO 5: Reflect on personal learning and growth through engagement activities and teamwork. CO 6: Apply ethical practices and promote inclusivity and sustainability in community projects.

SYBA	IV	Minor GEO-291-MN Physical Geography of Maharashtra Theory	Geography	CO 1: Ability to describe and analyze the administrative structure of Maharashtra. CO 2: Explain the physical features of Maharashtra CO 3: Explore and describe the climatic diversity of Maharashtra. CO 4: Assess the environmental and resource management challenges facing Maharashtra.
SYBA	IV	Minor GEO-292-MNP Practicals in Weather Observation Practical	Geography	CO 1: Explain the mechanisms and functions of weather instruments. CO 2: Demonstrate the use of weather instruments. CO 3: Record and interpret weather data. CO 4: Understand and interpret the IMD weather maps. CO 5: Identify meteorological symbols. CO 6: Analyze isobaric patterns CO 7: Evaluate seasonal weather conditions. CO 8: Develop practical skills in weather forecasting CO 9: Engage in field observations and reporting.
SYBA	IV	GE/OE OE -251- GEO Introduction to GPS Practical	Geography	CO 1: Acquire knowledge about the concepts of GPS. CO 2: Understand the various applications of GPS. CO 3: Conduct field surveys using GPS instrument. CO 4: Gain skills to prepare maps with the help of GPS data.
SYBA	IV	SEC SEC-251-GEO Practical in Fundamentals of Statistics Practical	Geography	CO 1: Classify and differentiate between different types of data, variables and sampling methods. CO 2: Utilize graphical techniques to present statistical data using histograms, frequency and ogive curves. CO 3: Apply descriptive statistics by computing and interpreting measures of central tendency and dispersion CO 4: Develop students' practical skills in statistical analysis and problem-solving.

Class	Semester	Paper	Subject	Course Outcomes
TYBA	V	GEO-301-MJ Fundamentals of Climatology (V Sem, Theory, 4 Credits)	Geography	CO 1: Explain the basic concepts, nature, and scope of climatology along with the elements of weather and climate. CO 2: Describe the Earth–Sun relationship, solar radiation, insolation, and the heat budget of the atmosphere. CO 3: Analyze atmospheric circulation patterns, pressure belts, and planetary wind systems responsible for global weather conditions. CO 4: Classify atmospheric moisture processes, cloud formation, and different mechanisms of precipitation. CO 5: Evaluate the causes, evidence, and impacts of climate change and global warming on the environment and society.
TYBA	V	GEO-302-MJ Regional Geography of India (V Sem, Theory, 4 Credits)	Geography	CO 1: Explain the geographical location, frontiers, and strategic significance of India. CO 2: Describe the major physiographic divisions and drainage systems of India and their regional importance. CO 3: Analyze the climatic conditions of India, including the origin and mechanism of the monsoon. CO 4: Classify the major soil and forest types of India along with their distribution and significance. CO 5: Evaluate environmental problems such as soil degradation and

				deforestation and suggest suitable conservation measures.
TYBA	V	GEO-303-MJP Practicals in Climatology & Soil Geography (V Sem, Practical, 4 Credits)	Geography	CO 1: Demonstrate the use of weather instruments and record basic climatological observations accurately. CO 2: Interpret isobaric patterns and weather maps to identify different weather systems and seasonal conditions. CO 3: Analyze climatic information using IMD weather reports, maps, and weather applications. CO 4: Collect and examine soil samples to determine texture, structure, porosity, pH, electrical conductivity, and nutrient status. CO 5: Apply practical knowledge of climatology and soil geography in understanding environmental conditions, agriculture, and resource management.
TYBA	V	GEO-310-MJ Soil Geography (V Sem, Theory, 2 Credits)	Geography	CO 1: Explain the meaning, nature, scope, and importance of soil geography. CO 2: Describe the factors and processes responsible for soil formation and soil profile development. CO 3: Identify the components, horizons, and characteristics of different soil profiles. CO 4: Analyze the causes, effects, and types of soil degradation.

				CO 5: Evaluate various methods of soil conservation and the role of RS and GIS in soil resource management.
TYBA	V	GEO-311-MJ Fundamentals of GIS (V Sem, Theory, 2 Credits)	Geography	CO 1: Explain the basic concepts, history, components, and functions of GIS. CO 2: Differentiate between spatial and non-spatial data and describe vector and raster data models. CO 3: Demonstrate understanding of GIS data input methods, georeferencing, and topology building. CO 4: Apply basic GIS operations such as overlay and buffer analysis for spatial analysis. CO 5: Evaluate the applications of GIS in topographic, environmental, and geographical studies.
TYBA	V	GEO-312-MJP Practicals in Fundamentals of Mapping (V Sem, Practical, 2 Credits)	Geography	CO 1: Explain the fundamental concepts of maps, toposheets, and basic cartographic techniques. CO 2: Prepare base maps and perform scale conversions including reduction and enlargement of maps. CO 3: Interpret SOI toposheets and extract relevant geographical information for analysis. CO 4: Construct thematic maps such as isotherms, isohyets, isobars, and choropleth maps using climatic data. CO 5: Apply GPS and mobile-based mapping tools for field data collection, measurement, and spatial analysis

TYBA	V	GEO-313-MJP Practicals in GIS (V Sem, Practical, 2 Credits)	Geography	CO 1: Explain the basic components and interface of GIS software such as QGIS or ArcGIS. CO 2: Demonstrate skills in scanning, data format conversion, and georeferencing of spatial data. CO 3: Perform digitization of point, line, and polygon features and manage vector and raster datasets. CO 4: Apply GIS tools for spatial data analysis including clipping, attribute linking, and data manipulation. CO 5: Prepare and export professional map layouts with essential cartographic elements using GIS software.
TYBA	V	GEO-321-VSC Introduction to Tourism Geography (V Sem, Theory, 2 Credits)	Geography	CO 1: Explain the basic concepts, nature, scope, and importance of Tourism Geography. CO 2: Classify different types of tourism including geo-tourism, eco-tourism, wildlife, agro, health, and adventure tourism. CO 3: Analyze the physical, socio-cultural, and political factors influencing tourism development. CO 4: Describe the role of tourism organizations such as WTO, ITDC, and MTDC in tourism development. CO 5: Evaluate current trends and sustainability considerations in the tourism industry.
TYBA	V	GEO-322-VSC Watershed Management (V Sem,	Geography	CO 1: Explain the basic concepts, components, and classification of watersheds.

		Theory, 2 Credits)		CO 2: Describe the morphological and climatic characteristics of watershed systems and their hydrological processes. CO 3: Analyze watershed structure and functions including water cycle processes such as runoff, infiltration, and storage. CO 4: Apply land capability and land suitability evaluation methods for watershed planning. CO 5: Evaluate watershed management strategies for sustainable natural resource development and community participation.
TYBA	V	GEO-331-FP/CEP Field Visit and Report Writing (V Sem, Field Project, 2 Credits)	Geography	CO 1: Plan and execute a field visit with clear objectives, preparation, and logistical arrangements. CO 2: Design questionnaires and use appropriate techniques for primary data collection in the field. CO 3: Apply field tools such as GPS, maps, instruments, and surveys for systematic geographical data collection. CO 4: Analyze and interpret collected field data using tables, maps, charts, and photographs. CO 5: Prepare a structured field visit report including methodology, analysis, discussion, conclusions, and recommendations.
TYBA	V	GEO-341-MN Environmental Geography (V	Geography	CO 1: Explain the meaning, nature, scope, and components of Environmental Geography

		Sem, Theory, 2 Credits)		CO 2: Describe the interrelationship between human activities and environmental systems. CO 3: Analyze major environmental problems such as climate change, global warming, pollution, and biodiversity loss. CO 4: Evaluate the principles of environmental management and sustainable development. CO 5: Understand key environmental legislations such as the Environment Protection Act (1986) and Biodiversity Act (2002).
TYBA	VI	GEO-351-MJ Introduction to Economic Geography (VI Sem, Theory, 4 Credits)	Geography	CO 1: Explain the meaning, nature, scope, and branches of Economic Geography. CO 2: Describe levels of economic development and theoretical models such as Rostow's stages of growth. CO 3: Analyze agricultural patterns and industrial location using models like Von Thünen and Weber. CO 4: Evaluate the role of transport systems and trade in regional and global economic development. CO 5: Apply economic geographical concepts to understand development patterns and planning issues.
TYBA	VI	GEO-352-MJ Geography of Resource Management (VI Sem, Theory, 4 Credits)	Geography	CO 1: Explain the concept, classification, and importance of natural resources in geography.

				CO 2: Describe the relationship between resource use and human–environment interactions. CO 3: Analyze issues related to land, water, forest, mineral, and energy resource management. CO 4: Evaluate the causes and impacts of resource degradation and environmental problems. CO 5: Apply principles of sustainable development and resource management practices in the Indian context.
TYBA	VI	GEO-353-MJP Practicals in Spatial Analysis (VI Sem, Practical, 4 Credits)	Geography	CO 1: Explain the basic concepts and importance of spatial analysis in geography. CO 2: Interpret SOI toposheets to identify and analyze physical and cultural features of different regions. CO 3: Demonstrate skills in map reading, indexing, and representation of relief and thematic features. CO 4: Apply statistical techniques such as correlation, regression, chi-square test, and Spearman’s rank correlation in geographical studies. CO 5: Formulate and test hypotheses for spatial and geographical data analysis using appropriate statistical methods.
TYBA	VI	GEO-360-MJ Geography of Disaster Management (VI Sem, Theory, 2 Credits)	Geography	CO 1: Explain the basic concepts and spatial nature of disasters and disaster management.

				CO 2: Classify natural and man-made disasters and describe their causes and impacts. CO 3: Analyze the disaster management cycle including mitigation, preparedness, response, and recovery. CO 4: Describe the role of national and state-level institutions such as NDMA, NDRF, SDMA, and SDRF in India. CO 5: Apply GIS, Remote Sensing, and community-based approaches in disaster risk reduction and resilience planning.
TYBA	VI	GEO-361-MJ Introduction to Remote Sensing (VI Sem, Theory, 2 Credits)	Geography	CO 1: Explain the basic concepts, history, and types of Remote Sensing. CO 2: Describe the characteristics of electromagnetic radiation and its interaction with the atmosphere and Earth's surface. CO 3: Identify spectral signatures of major land cover features such as water, soil, vegetation, and snow. CO 4: Distinguish between different types of satellite platforms, sensors, and orbital systems. CO 5: Understand the structure and significance of the Indian Remote Sensing (IRS) Programme in spatial data acquisition.
TYBA	VI	GEO-362-MJP Practicals in Economic Geography (VI Sem,	Geography	CO 1: Apply statistical methods to analyze crop combination, crop concentration, and agricultural productivity.

		Practical, 2 Credits)		CO 2: Evaluate agricultural patterns using techniques such as crop diversification and agricultural efficiency analysis. CO 3: Analyze industrial distribution using Location Quotient, Coefficient of Localization, and Industrial Intensity Index. CO 4: Examine trade relationships and market areas using Converse's breaking-point model. CO 5: Evaluate transport network efficiency using indices such as Beta, Alpha, Gamma, and Cyclomatic numbers. CO 6: Develop practical skills in interpreting and presenting quantitative geographical data effectively.
TYBA	VI	GEO-363-MJP Practicals in Remote Sensing (VI Sem, Practical, 2 Credits)	Geography	CO 1: Identify and use satellite data sources such as Bhuvan, Sentinel, and USGS for downloading spatial data. CO 2: Demonstrate skills in image processing techniques including georeferencing, enhancement, format conversion, and layer stacking. CO 3: Apply supervised and unsupervised classification techniques for LULC mapping using open-source GIS/RS software. CO 4: Analyze and interpret remote sensing images for land use and environmental studies. CO 5: Prepare thematic maps such as location maps, LULC maps, and

				change detection maps with proper cartographic layout.
TYBA	VI	GEO-371-VSC Practicals in Tour Planning (VI Sem, Practical, 2 Credits)	Geography	CO 1: Explain the basic concepts, types, and components of tour planning and itinerary preparation. CO 2: Design simple tour itineraries including one-day, short-term, and long-distance travel plans. CO 3: Prepare cost sheets and budgets for different types of tour packages. CO 4: Demonstrate understanding of travel documentation, including tickets, permits, passport, and visa procedures. CO 5: Apply practical skills in online booking of transport and accommodation services. CO 6: Develop and present a complete tour plan along with a structured tour report.
TYBA	VI	GEO-372-VSC Practicals in Advanced Surveying (VI Sem, Practical, 2 Credits)	Geography	CO 1: Explain the principles and components of GNSS (GPS), including control, space, and user segments. CO 2: Demonstrate field skills in GPS data collection, waypoint recording, and map preparation using GNSS data. CO 3: Apply theodolite surveying techniques for measuring angles, distances, and plotting survey data. CO 4: Operate total station instruments for coordinate measurement, data collection, and mapping workflows. CO 5: Understand the basics of drone surveying and photogrammetry for aerial data acquisition and mapping.

				CO 6: Integrate modern surveying technologies for spatial analysis and geographical applications.
TYBA	VI	OR GEO-381- OJT On Job Training (VI Sem, OJT, 4 Credits)	Geography	CO 1: Demonstrate practical exposure by working in relevant organizations under professional supervision. CO 2: Apply geographical knowledge and skills to real-world industrial, academic, or research environments. CO 3: Develop employability skills such as communication, teamwork, and workplace adaptability. CO 4: Understand professional work culture and institutional functioning in related sectors. CO 5: Prepare structured technical reports based on field training and industrial experience.


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