LOKNETE VYANKATRAO HIRAY COLLEGE, PANCHAVTI, NASHIK.

DEPARTMENT OF GEOGRAPHY

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 analyzed and presentation of data on social, cultural, and ecological issues.

PO2: Demonstrate connections between everyday life at the local scale and the forces that network them into a global community.

PO3: 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 techniques and other visual formats.

PO7: Demonstrate general understanding of how the physical environment, human societies,andlocalandglobaleconomicsystemsareintegraltotheprinciplesof sustainabledevelopment.

PO8: Demonstrate acquisition of Weather chart/map, aerial photographsand Image readingskill.

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

PO10: Develop research questions and critically analyzed both qualitative and quantitative data to answer those questions using various theoretical and methodological approaches in both physical and humangeographies.

PO11: Develop a general understanding of global human population patterns, migration patterns, factors influencing on the distribution and mobility of human populations including settlement and economic activities and networks, and human impacts on the geographical environment.

PO12: Read, interpret, and generate maps and other geographic representations as well as extract, analyze, and present information from a spatial perspective

Programme Specific Outcomes

After completing B. A. Geography Programme will have

PSO1: Demonstrate and understanding of principles and theories of Geography. This include applications of Physical geography,HumanGeography.

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.

CourseOutcomes

F. Y. B. A. Geography

Course Gg110-A: Physical Geography (General -1)

The student who successfully completes this course can able to:

CO1: Explain principal terms, definitions, Concept in physical geography.
CO2: Critically analyzed development and magnitude of landforms.
CO3: Identify different Materials of the earth crust, rock types, types of weathering, mass movements and types of slope.
CO4: Describe importance of latitude, longitude and the reasons why different countries have different time zone anddate.
CO5: Identify the process responsible for climatic change and the remedies on it.
CO6: Evaluate exogenous and endogenous processes in the landscape, their importance in landform development, and distinguish the mechanisms that control theseprocesses.
CO7:Apply geomorphological and climatological knowledge and understanding in the field of watershed management,Hazardmanagementandmitigation,Naturalresourceexploitation and management, Regional planning, Engineering works and construction activities, urban geomorphology and transport development andurbanization.
CO8: Understand the population patterns through the study of physical features.

F.Y.B.A. Geography

Course Gg 110-B: Human Geography (G-1)

After successfully completing this course, students will be able to:

CO1: Describe nature of man-environment relationship and human capability.
CO2: Explain conditions of living of human beings from primitive life to the modern era.
CO3: Explain human evolution and different races existed since the beginning of living life.
CO4: Describe different tribes and their culture in different geographical areas.
CO5: Explain causes and effect of migration of mankind.
CO6: Analyze relationship between population and available resources.
CO7: Identify and explain spatial distribution pattern of population and environment
CO8: Identify contemporary issues which the global community is facing.
CO9: identify the spatial patterns and forms of settlement
CO10: Analyzed the process of urbanization.

S. Y. B. A. Geography

Course Gg-210: Geography of Disaster Management (General -2)

After successfully completing this course, students will be able to:

CO1: Describe concepts of Disaster and its relations with physiographic aspect.
CO2: Explain terminology of DisasterManagement and contemporary issues.
CO3: Analyzed the process of manmade and natural hazards and itsManagement.
CO4: Explain standard operating procedure of government and NGO for disaster management.
CO5: Describe concepts of anthropogenic disaster, its types, causes andmanagement.
CO6: Explainimportantgloballeveldisastersi.e.,acidrain,ozonedepletionandglobal warming.
CO7: Demonstrate Disaster Management at locallevel.
CO8: Suggest methods of protection from disaster and will be able to do disaster management.

Course Gg.220: Economic Geography (S-1)

After successfully completing this course, students will be able to:

CO1: Define basic principles and concepts in EconomicGeography.
CO2: Describe dynamic aspect of economicgeography.
CO3: Explain Activities for global Economicdevelopment.
CO4: Type of resources and theirapplications for economic development.
CO5: Describe skill of planning for the economic development and its management.
CO6: Describe skill of industrial, agricultural transport and tradeactivities.
CO7: Apply applications of economic geography in different areas of growth and development.

Course Gg230: Fundamentals of Geographical Analysis (S-2)

After successfully completing this course, students will be able to:

CO1: Explain basic concepts of map and scale.
CO2: Identify different Types of Map Projections.
CO3: Describe basic of Statistical data and the skill of graphical data presentation.
CO4: Apply Surveying Techniques in Geography.
CO5: Explain about preparation of layout.
CO6: Describe surveying instruments and their applications.
CO7: Demonstrate preparation of drawing profile with the help of DumpyLevel.
CO8: Conduct geographical field investigation and report writing.

TYBA. Geography

Course Gg 310: RegionalGeography of India (G-3)

After successfully completing this course, students will be able to:

CO1: Describe geographical location, economic position and geological structure of India in relation to World.
CO2: Explain physiographic divisions and drainage system of India.
CO3: Describe climatic regions and seasons of India using climatic data.
CO4: Describe soil types and their distribution in India by using geographical map.
CO5: Describe major forest types, crops and their distribution and production in India
CO6: Describe mineral power resources and major Industries distribution in India
CO7: Evaluate population growth and distribution in India.
CO8: Evaluate regional development in terms of infrastructure, industries and agriculture.

Course Gg: 320 Population And Settlement Geography (S-3)

The student who successfully completes this course can able to:

CO1: Explain Evaluation of settlement and population geography globally.
CO2: Describe factors influencing growth and distribution of settlements.
CO3: Identify various patterns of settlement using Toposheet.
CO4: Evaluate effects of technology on shelter and pattern of settlement.
CO5: Analyse factors influencing the dispersion and nucleation.
CO6: Measure degree of dispersion and nearest neighbour using Toposheet.
CO7: Apply concepts of Nodality, Centrality, Range, Threshold and Hierarchy to describe the features of settlement.
CO8: Analyse factors responsible for urbanization and influencing the distribution of settlement globally.
CO9: Apply of theories of population growth to study settlement history.

Course Gg-301 Techniques of Spatial Analysis (S-4)

After successfully completing this course, students will be able to:

CO1: Explain basic concepts of statistical and remote Sensing.
CO2: Identify different methods of Relief Representation.
CO3: Describe basic of Statistical data and the skill of data representation.
CO4: Apply Remote Sensing Techniques in Geography.
CO5: Interpret top sheet/ map, aerial photographs and analysis of Toposheet/ map, aerial Photographs.
CO6: Describe weather instruments and their applications in Geographical phenomena.
CO7: Calculate Central Tendency, Variance and Standard Deviation, Correlation and Regression, and Testing of Hypothesis.
CO8: Conduct Survey of socio-economic conditions of a village and geomorphological field investigation and report writing.

M. A. Geography

Programme Outcomes

After successfully completing M.A. in 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 the 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 research, 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: Develop research questions and critically analyse both qualitative and quantitative data to answerthose questions using various theoretical and methodological approaches in both physical and human geographies.

PO11: 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.

PO12: Read, interpret, and generate maps and other geographic representations as well as extract, analyse, and present information from a spatial perspective

Programme Specific Outcomes

After completing **M.A. Geography course students will have**

PSO1: Knowledge of geographical terms, concepts and Theories.

PSO2: Ability of explanation of correlation between geographical facts and processes.

PSO3: Development of map preparation and map reading skills.

PSO4: Understanding of Regional Geography of India.

PSO5: Ability to use geographical research methodologies and research projects.

MA Geography Part I- SEM-ICourse Outcomes

Course GGUT: 111 Principles of Geomorphology

The student who successfully completes this course can able to:
CO1: Explain principal terms, definitions, concept and theories of Geomorphology.
CO2: Discuss how different scales of time and space affect geomorphological processes and the development of micro to mega scale landforms.
CO3: Explain different concept, theories and models for landscape evolution.
CO4: Describe the exogenous and endogenous processes in the landscape, their importance in landform development, and distinguish the mechanisms that control these processes.
CO5: Describe the different Materials of the earth crust, rock types, and types of weathering, mass movements andtypes of slope.
CO6: Apply knowledge of basic landforms from tectonic, volcanic, fluvial, glacial, Aeolian and coastalenvironments.
CO7: Categorizes slope Segments in various types.
CO8: Categorizes and compares different landforms.

Course GGUT: 112 Principles of Climatology

The student who successfully completes this course can able to-
CO1: Explain principal terms and concept of Climatology.
CO2: Describe composition and Structure of Earth Atmosphere
CO3: Explain electromagnetic spectrum, its effect on earth atmosphere and types of insulation.
CO4: Explain basic concepts of air temperature, air pressure and its measurement.
CO5: Explain basic concepts of wind and wind measurement.
CO6: Describe scales of Atmospheric Motion and Models of air circulation.
CO7: Explain basic concepts of hydrological cycle, condensation and evaporation.
CO8: Describe concept of Lapse Rate, Stable and unstable Atmosphere, Air Masses & Fronts.
CO9: Apply skill of weather forecasting and application in deferent sectors of Climatology.

Course: GGUT. -113 Principles of Economic Geography

After successfully completing this course, students will be able to:
CO1: Explain principal terms, definitions, concept, nature, scope and recent trends in Economic Geography.
CO2: Discuss types of hypotheses in economic geography and formation and testing of hypotheses.
CO3: Explain economic landscape, theories and models.
CO4: Describe resources and explain significance of natural and human resources in economic development.
CO5: Describe different Factors of Production and related aspects.
CO6: Explain measures of economic development classification of countries.
CO7: Categorizes and compares different countries with their economic development.

Course GGDT.114 Principles of Population & Settlement Geography

The student who successfully completes this course can able to:

CO1: Explain Evaluation of settlement and population geography globally.
CO2: Describe factors influencing growth and distribution of settlements.
CO3: Identify various patterns of settlement using Toposheet.
CO4: Evaluate effects of technology on shelter and pattern of settlement.
CO5: Analyse factors influencing the dispersion and nucleation.
CO6: Measure degree of dispersion and nearest neighbour using Toposheet.
CO7: Apply concepts of Nodality, Centrality, Range, Threshold and Hierarchy to describe the features of settlement.
CO8: Analyse factors responsible for urbanization and influencing the distribution of settlement globally.
CO9: Apply of theories of population growth to study settlement history.

Course: GGUP. -115 Practical in Physical and Human Geography

After successfully completing this course, students will be able to:

CO1: Explain principal terms, definitions, and concept of geomorphology.
CO2: Explain methods in geomorphology.
CO3: Describe drainage network analysis and drainage basin relief analysis.
CO4: Demonstrate Horton and Strahler methods of stream ordering.
CO5: Explain the relationship between stream order and number.
CO6: Demonstrate climatic diagrams.
CO7: Describe climatic classification of Koppen and Thornthwaite.
CO8: Construct water budget diagram using Precipitation & potential evapotranspiration data.
CO9: Describe underlying theory and concepts of experiments in course.
CO10: Calculate crop combination, crop diversification and analysis of methods, network structures, age sex pyramid & infant mortality rate and population growth rate and population projection.
CO11: Apply Rank size rule, nearest neighbour analysis and calculation of centrality.
CO12: Document their results, using correct procedures and protocols.
CO13: Perform a quantitative analysis of experimental data including use of computational and statistical methods where relevant.
CO14: Interpret relationships in graph format data and develop an intuition for alternative plotting methods and communicate results from laboratory experiments, orally or in a written laboratory report.
CO15: Derive conclusions from the analysis of own data.

MA Geography Part I- SEM-II Course Outcomes

Course: GGUT-121 Geoinformatics

After successfully completing this course, students will be able to:

CO1: Explain definition, concepts and principles, components.
CO2: Describe history of development of remote sensing and GIS in India
CO3: Describe database and data models in Geoinformatics.
CO4: Explain processing and analysis of collected data.
CO5: Apply knowledge of Geographical Information System in assessment, planning and monitoring in real life application.
CO6: Apply knowledge spatial data analysis.

Course: GGUT-122 Coastal Geomorphology

After successfully completing this course, students will be able to:

CO1: Explain principal terms, definitions, concept and theories of Coastal Geomorphology.
CO2: Discuss different coastal processes and the coastal landforms.
CO3: Explain mechanism of sea level changes.
CO4: Describe coastal sediments their properties, types and movement.
CO5: Describe different coastal environments - Fluvial-dominated, Wave-dominated, Tide-dominated and Biotic environments.
CO6: Apply knowledge of coastal Geomorphology in the field of sea level rise, storm hazard management, coastal erosion, wetlands, kha lands, estuarine reclamation, salt intrusion and subsidence of coastal aquifers.

Course: GGUT-126 Fluvial Geomorphology

After successfully completing this course, students will be able to:

CO1: Explain principal terms, definitions, concept and theories of fluvial Geomorphology.
CO2: Describe Hydraulic Geometry.
CO3: Explain fluvial processes.
CO4: Describe Channel Morphology
CO5: Explain Fluvial Erosion, transportation and deposition and associated landforms.
CO6: Explain river metamorphosis.

Course: GGDT-132 Geography of Disaster Management

After successfully completing this course, students will be able to:

CO1: Explain principal terms, definitions and concept of disaster management.
CO2: Explain types of disasters.
CO3: Describe various disasters with their trend and impact.
CO4: Identify the different Disaster management techniques with their application.
CO5: Apply and use of ICST for different disaster management.

CO6: Describe the various disasters in India and their management issues

Course: GGDP-133 Practical in Map Projections

After successfully completing this course, students will be able to:

CO1: Describe the fundamental concepts of map projections.

CO2: Explain graphical construction and uses of map projections.

CO3: Apply knowledge of maps projection for classification and construct different maps.

Course: GGUP -134Practical of Statistical Techniques in Geography

After successfully completing this course, students will be able to:

CO1: Explain descriptive and inferential statistics, Geographical data and scales of measurement.

CO2: Explain Importance of Statistics in Geography.

CO3: Analyse Measures of Central tendency and dispersion.

CO4: Analyse probability assessment and their calculation procedures and applications and uses in different field of geography.

CO5: Explain Time series analysis, calculation and plotting moving Average.

CO6: Calculate the correlation and regression.

CO7: Compute inferential statistical test and testing of hypothesis

M. A. Geography Part II, SEM-III

Course Gg. 301 Geography of India

After successfully completing this course, students will be able to:

CO1: Describe geographical location, economic position and geological structure of India in relation to World.
CO2: Explain physiographic divisions and drainage system of India.
CO3: Describe climatic regions and seasons of India using climatic data.
CO4: Describe soil types and their distribution in India by using geographical map.
CO5: Describe major forest types, crops and their distribution and production in India
CO6: Describe mineral power resources and major Industries distribution in India
CO7: Evaluate population growth and distribution in India.
CO8: Evaluate regional development in terms of infrastructure, industries and agriculture.

Course: Gg-302 Interpretation of Topographical Maps and Village Survey / Project Report

After successfully completing this course, students will be able to:

CO1: Explain basic concepts of India topographical maps and Ordnance Survey topographical maps
CO2: Interpret Survey of India topographical maps with respect to physical and cultural aspect.
CO3: Interpret ordnance Survey topographical maps with respect to physical and cultural aspect.
CO4: Identify different methods of Relief Representation.
CO5: Identify different patterns of drainage network, vegetation, settlements and land use.
CO6: Evaluate information on the survey of India topographical map with actual ground information by carrying physical survey of particular location or village.
CO7: Compute information regarding geology, climate, soils and vegetation of the particular location or village
CO8: Survey of socio-economic conditions of a village and geomorphological field investigation and report writing.

Course: Gg-303 Title: Research Method in Geography

After successfully completing this course, students will be able to:

CO1: Describe different surveying instruments and field survey methods with computation and drawing.
CO2: Infer topographical maps, aerial photographs and satellite images and create database.
CO3: Apply knowledge of statistical methods in geographical research.
CO4: Apply GIS techniques in geography.
CO5: Apply knowledge of field sampling Questionnaire, interviews, measurements and field mapping.
CO6: Plan field work and able to write report.

Course Gg.304 Social and Cultural Geography

After successfully completing this course, students will be able to:

CO1: Explain definitions and concept of social and cultural geography
CO2: Describe conceptual and methodological approaches in social and cultural Geography
CO3: Explain philosophical bases in social and cultural geography
CO4: Describe structure and processes of social patterns in social and cultural Geography
CO5: Describe social groups and its level in our society
CO6: Describe cultural diversities, role of race, religion, caste, ethnicity, tribe, language, dialect, literacy, education, economic activities, class and power, transformations and changes.
CO7: Explain components and indicators of social wellbeing, quality of life and HDI.
CO8: Describe and classify human settlement and relation to ideology, social structure and technology.

Course: Gg-305 Practical in Watershed analysis

After successfully completing this course, students will be able to:

CO1: Explain fundamentals concepts related to watershed, significances of watershed development, demarcation of watershed, types of watershed according to area and shape
CO2: Analyses physical parameters of watershed, channel geometry and basin morphology.
CO3: Apply knowledge of digitization in the preparation of TIN model and Grid based DEM.
CO4: Create DEM with the help of software.
CO5: Draw DEM based set of profiles at an equal interval.
CO6: Plot of Hypsometric curve and able to Calculate of Hypsometric Integra.

Course Gg. 310: Tropical Geomorphology

After successfully completing this course, students will be able to:

CO1: Describe concepts tropical environment, tropical climate & morphogenetic regions
CO2: Explain factors influencing weathering- climatic, geomorphic, biotic, geologic, chronologic and site factors
CO3: Explain solubility & mobility of minerals and deep weathering profiles
CO4: Describe tropical soil formation and its processes
CO5: Describe Classification and distribution of duri crusts and laterites in India
CO7: Describe mass movement, types and processes using the concept of slope.
CO8: Describe nature of tropical terrain and relief characteristics
CO9: Describe tropical planation its concept, types & processes
CO10: Explain landform development in tropical region.

Course Gg. 322Geography of Soil

After successfully completing this course, students will be able to:

CO1: Describe importance of soil in agriculture.

CO2: Describe the soil forming process

CO3: Describe physical, chemical and Biochemical properties of soil

CO4: Explain Development of soil profile, Genetic structure of soil and morphological features of soil horizons.

CO5: Describe weathering and soil, soil classification system, problems related to soil degradation and conservation.

Course Gg. 330 Practical in Geomorphology

After successfully completing this course, students will be able to:

CO1: Describe underlying theory and concepts of experiments in the course.

CO2: Follow instructions to perform laboratory experiments in geographic map, understand chart showing symbols to prepare geographic map, hill slope, Dalrymple nine-unit land surface model, surveying & plotting of stream, quadrate survey, Zing's classification, GPS surveys and GPS based maps and Sediment analysis

CO3: Document their results, using correct procedures and protocols.

CO4: Perform a quantitative analysis of experimental data including the use of computational and statistical methods where relevant.

CO5: Interpret relationships in graphed data and develop an intuition for alternative plotting methods and communicate results from laboratory experiments, orally or in a written laboratory report.

CO6: Derive conclusions from the analysis of own data

CO7: Assess language used to describe Geography experiments and how it can alter perceptions of the method and results.

M. A. Geography Part II, SEM-IV

Course: Gg-401 Theoretical and Applied Geography

After successfully completing this course, students will be able to:

CO1: Explain development of geography in the ancient, mediaeval and modern period.
CO2: Describe dualism, dichotomies, paradigms, system approaches and models in geography
CO3: Explain recent trends in geography
CO4: Apply knowledge of geographical concepts.
CO5: Describe techniques in land-use planning, regional planning and urban planning.
CO6: Explain resource management, environmental management, natural hazards, and scenic evaluation.

Course: Gg-402 Principles of Remote Sensing and GIS

After successfully completing this course, students will be able to:

CO1: Explain definition, concepts and principles, components.
CO2: Describe history of development of remote sensing and GIS in India
CO3: Describe methodologies of extracting data from remotely sensed imagery.
CO4: Explain processing and analysis of data collected from remote sensors.
CO5: Apply knowledge of remote sensing and Geographical Information System in assessment, planning and monitoring in real life application.
CO6: Apply knowledge spatial data analysis.

Course: Gg-403 Practical in Remote Sensing and GIS

After successfully completing this course, students will be able to:

CO1: Explain concept, measurements interpretation of aerial photographs and satellite images.
CO2: Describe GIS-concepts, GIS- definition, application and data models.
CO3: Apply GIS operations- digitization, raster and vector overlay.
CO4: Digit from a Toposheet quadrant.
CO5: Apply knowledge of map algebra (AND, OR) and spatial interpolation from a Toposheet quadrant

Course: Gg. 404 Geography of Food Security of India

After successfully completing this course, students will be able to:

CO1: Explain concept of food security and importance and availability of food accessibility, utilization food stability.
CO2: Explain concept economic growth and physical factors affecting on food security.
CO3: Identify difference between cash crop and food crop.
CO4: Explain concept of food justice and food sovereignty.
CO5: Describe social injustice - gender inequalities and food security conditions in India at national and state level.
CO6: Describe India’s food security bill and importance of food security in India.

CO7: Analysis news from magazines, journals and newspapers is essential for planning of food security regional and national level.

Course: Gg-405 Geography of Health

After successfully completing this course, students will be able to:

CO1: Explain basic terms concept and definition of Geography of Health
CO2: Describe development, achievements, challenges and approaches to geography of health.
CO3: Infer geographical factors affecting human health.
CO4: Describe classification of diseases with diffusion and causes.
CO5: Describe health care systems in India, with emphasis to rural and Urban environment and health
CO6: Explain planning and significance of health care canters and health services

Course:Gg-407 Regional Geography of SAARC countries

After successfully completing this course, students will be able to:

CO1: Explain history of SAARC Organisation.
CO2: Describe importance, relevance of SAARC Countries.
CO3: Infer physiography, climate, drainage, vegetation, agriculture, economic, demographic and cultural aspects of SAARC countries
CO5: Describe general locations of SAARC countries- India, Pakistan, Nepal, Bhutan, Bangladesh, Shri Lanka, Maldives with emphasis to strategic location of India.

Course: Gg-423 Oceanography

After successfully completing this course, students will be able to:

CO1: Explain definition, concept and theories of Oceanography.
CO2: Describe nature, scope and development in oceanography.
CO3: Describe the origin of the ocean Basins, world oceans and their formations
CO4: Explain relief of the ocean bottom
CO5: Describe the properties and movement of sea water.
CO6: Explain sediments on the ocean floor

Course: Gg-441 Principles of Regional Geography & Project Work

After successfully completing this course, students will be able to:

CO1: Explain definition, concepts of regional geography.
CO2: Explain principles and importance of regional geography.
CO3: Describe regionalisation and planning.
CO4: Explain theoretical structure of planning.
CO5: Describe regional disparities.
CO6: Explain sediments on the ocean floor.
CO7: Apply subject knowledge and prepare a project on the topic related to regional geography with issues and solutions

CO8: Prepare a present on the topic related to regional geography with issues and solutions.