Mahatma Gandhi Vidyamandir's
Loknete Vyankatrao Hiray Arts, Science and Commerce College,
Panchavati, Nashik-422003
(Affiliated to SPPU, Pune, Reaccredited with 'A' grade, Recipient of Best College Award by SPPU)

Programme Specific Outcomes,

&

Course Outcomes of M.A/MSc.

Department of Geography

Academic Year

2022-23

Programme Specific Outcomes: M.A. Subject (Programme code)

Name of the Programme: M.A. Subject	
Program Specific Outcomes	
At the end of the programme, student will be able to	
1	**PSO1**: Knowledge of geographical terms, concepts and Theories.
2	**PSO2**: Ability of explanation of correlation between geographical facts and processes.
3	**PSO3**: Development of map preparation and map reading skills.
4	**PSO4**: Understanding of Regional Geography of India.
5	**PSO5**: Ability to use geographical research methodologies and research projects.

Course Outcomes: M.A. Subject (Programme code)

Class : M.A. Subject		
Semester-I		
Paper	**Course code & course title**	**At the end of the course, student will be able to**
GGUT: 111	**PASG GGUT: 111 Principles of Geomorphology**	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 and types of slope.
		CO6: Apply knowledge of basic landforms from tectonic, volcanic, fluvial, glacial, Aeolian and coastal environments.
GGUT: 112	**PASG GGUT: 112 Principles of Climatology**	CO1: Explain principal terms and concepts of Climatology.
		CO2: Describe composition and Structure of Earth Atmosphere
		CO3: Explain basic concepts of air temperature, air pressure and its measurement, Winds.
		CO4: Describe scales of Atmospheric Motion and Models of air circulation.
		CO5: Explain basic concepts of hydrological cycle, condensation and evaporation.
		CO6: Apply skill of weather forecasting and application in deferent sectors of Climatology.
GGUT. -113	**PASG GGUT. -113 Principles of Economic Geography**	**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 with classification of countries.
GGDT-114	**PASG GGDT-114 Principles of Population &**	CO1: Explain Evaluation of settlement and population geography globally.
		CO2: Describe factors influencing growth and distribution and patterns of settlements .
		CO3: Evaluate effects of technology on shelter and pattern of settlement.
		CO4: Analyse factors influencing the dispersion and nucleation.

	Settlement Geography	CO5: Analyse factors responsible for urbanization and influencing the distribution of settlement globally.
		CO6: Apply of theories of population growth to study settlement history.
GGUP. -115	**PASG GGUP. -115 Practical in Physical and Human Geography**	CO1: Describe drainage network analysis, drainage basin relief analysis, stream ordering- Harton and Strahler's Method.
		CO2: Explain the relationship between stream order and number.
		CO3: Demonstrate climatic diagrams.
		CO4: Construct water budget diagram using Precipitation & potential evapotranspiration data.
		CO5: Calculate crop combination, crop diversification and analysis of methods, network structures, age sex pyramid & infant mortality rateand population growth rate and population projection.
		CO6: Apply Rank size rule, nearest neighbour analysis and calculation of centrality.
Semester-II		
GGUT-121	**PASG GGUT-121 Geoinformatics-I**	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.
GGUT-122	**PASG GGUT-122 Coastal Geomorphology**	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.
GGUT-126	**PASG GGUT-126 Fluvial Geomorphology**	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.
GGDT-130	**PASG GGDT-130 Geography of Tourism**	CO1: Explain the history and basic concepts, factors of Tourism.
		CO2: Understand the types of tourism.
		CO3: Distinguish different aspects of Tourism Geography.
		CO4: Assess role of accommodation and the impacts of tourism.
		CO5: Understand and implement the planning and policies of tourism development in India.
	PASG GGDP-133 Practical in Map Projections	CO1: Describe the fundamental concepts of map projections.
		CO2: Classify map projections on different bases.
		CO3: Construction of different map projections.
		CO4: Discuss properties of map projection
		CO5: Apply knowledge of maps projection
		CO6: Evaluate the use of map projections.
GGUP -134	**PASG GGUP -134 Practical of Statistical Techniques in Geography**	CO1: Explain descriptive and inferential statistics, Geographical data and scales of measurement.
		CO2: Discus Importance of Statistics in Geography.
		CO3: Calculate Measures of Central tendency and dispersion.
		CO4: Analyse probability assessment and their calculation procedures and applications and uses in different field of geography.
		CO5: Describe Time series analysis, calculation and plotting moving Average.
		CO6: Distinguish the correlation and regression as well as inferential statistical test and testing of hypothesis

Class : M.A. Subject -II		
Semester-III		
Paper	**Course code & course title**	**At the end of the course, student will be able to**
GGUT:235	PASG **GGUT:235 Geoinformatics-II**	CO1: Illustrate the concepts, history and development of Remote Sensing
		CO2: Describe EMR and EMS
		CO3: Analyse different Platforms, Satellites, Sensors and Resolutions with their uses
		CO4: Interpret the Satellite Imageries and Aerial Photographs
GGUT: 236	PASG **GGUT: 236 Geographical Thoughts**	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.
GGUT: 237	PASG **GGUT: 237 Tropical Geomorphology**	CO1: Describe concepts tropical environment, tropical climate & morphogenetic regions
		CO2: Explain factors influencing weathering- climatic, geomorphic, biotic, geologic, chronologic and site factors
		CO3: Describe tropical soil formation and its processes, Slope Wash, Mass Movement
		CO4: Describe Classification and distribution of duri crusts and laterites in India
		CO5: Explain landform development in tropical region and Planation concepts and processes
GGDT: 243	PASG **GGDT: 243 Watershed Management**	CO1: Describe Definition, concepts, necessity and problems of watershed management.
		CO2: Analyze characteristics of watershed management.
		CO3: Explain hydrological process in watershed management
		CO4: Illaborate water and soil conservation in watershed management.
		CO5: Apply Remote sensing and GIS in watershed management
		CO6: Explain integrated watershed development plans and importance of watershed management in national development.
GGDP: 244	PASG **GGDP: 244 Practical in Multivariate Statistics**	CO1: Describe bivariate and multivariate analysis and objectives of multivariate analysis.
		CO2: Explain Matrix Algebra and determinants of a Matrix.
		CO3: Analyse of curvilinear bivariate relationships
		CO4: Calculate Multivariate Analysis, computing of multiple regression equation.
		CO5: Find out Co-efficient of multiple determination and explained variance.

GGUP:245	PASG **GGUP:245 Practical in Geomorphology**	CO1: Define Geomorphological mapping with symbols, prepare and interpret geomorphological map.
		CO2: Analyse direct and indirect measurements of Hill Slope.
		CO3: Discuss Surveying and plotting of stream or gully channel with various survey methods.
		CO4: Describe Soil/Sediment with various samples, methods and plot the data with interpretation.
		CO5: Classify hillside segments and implement Dalrymple's nine unite land-surface model.
		CO6: Develop GPS Survey.
Semester-IV		
GGUT: 249	PASG **GGUT: 249 Geography of India**	CO1: Describe geographical location, strategic significance 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 minerals, power resources and major Industries distribution and development in India
		CO7: Evaluate population growth and distribution in India.
		CO8: Evaluate regional development in terms of infrastructure, industries and agriculture.
GGUT-250	PASG **GGUT-250 Oceanography**	CO1: Explain definition, concept, theories, foundation and contribution in the study of Oceanography.
		CO2: Describe the origin of the ocean Basins, world oceans and ocean floor/bottom with their formations and theories.
		CO3: Describe the properties and movement of sea water.
		CO4: Explain sediments on the ocean floor and ocean resources
		CO5: Discuss the causes and measures of Ocean Pollution
GGUT: 251		CO1: Discuss Meaning, Characteristics, Types, Steps in Research Methodology
		CO2: Distinguish between Research Methods and Methodology

	PASG **GGUT: 251 Research Methodology**	CO3: Prepare Research Design, Sampling Design and find out research problem.
		CO4: Apply methods of data collection and data analysis.
		CO5: Write Research Report with structure and organization
		CO6: Follow Research Ethics, Plagiarism and search funding agencies.
GGUT: 252	PASG **GGUT: 252 Geography of Soil**	CO1: Define soil, and discuss Nature, scope and development of soil geography and soil as a resource.
		CO2: Analyse Soil Formation and Soil Profile
		CO3: Illustrate Components and Characteristics of Soil
		CO4: Explain the classification and types of soils.
		CO5: Critically examine the problems related to Soil and Soil Conservation.
GGDP: 256	PASG **GGDP: 256 Practical in Watershed analysis**	CO1: Define definition of Watershed/Drainage Basin from Toposheet.
		CO2: Illustrate Basin Perimeter, Shape and Area.
		CO3: Describe drainage network stream ordering- Strahler's Method and Bifurcation Ratio.
		CO4: Calculate linear aspect of Drainage Basin like Stream ordering, bifurcation ratio,
		CO5: Elaborate Relief aspects of Drainage Basin such as Calculation of Relief Ratio, Relative Relief, Ruggedness number, Absolute and Relative Relief Map
		CO6: Apply software's for Drawing Delineation of watershed, physiographic map, watershed map, drainage network map, contour and slope map.
GGUT: 258	PASG **GGUT: 258 Geography of World**	CO1: Discuss the origin, evolution, Geological time scale, continents and oceans and Major natural regions.
		CO2: Explain continents with their characteristics like location, physiography, climate and agriculture
		CO3: Compare continents with their characteristics like Natural vegetation, Wildlife, Mineral Resources, Population in important countries

		CO4: Critically analyse world contemporary issues like Boarder and Water, Health, Environmental, Population issues.
		CO5: Evaluate the role of WTO & IMF
		CO6: Analyse the challenges like food security, climate change, global public health, terrorism and opportunities like globalization and tourism
GGUP: 259	PASG **GGUP: 259 Dissertation**	CO1: Identify the Research Problem and apply specific techniques to solve it.
		CO2: Manipulate the basic framework of sampling.
		CO3: Use various sources of information for data collection.
		CO4: Formulate data collection and tabulation.
		CO5: Conduct the survey on various issues, analyse, describe and interpret collected data