



Malad Kandivli Education Society's

NAGINDAS KHANDWALA COLLEGE (Autonomous)

Reaccredited by NAAC with 'A' Grade (3rd Cycle) | ISO 9001:2015 Certified

Programme Code: PMAGEO

Programme Name: MA-Geography

Programme Outcome:

Students will demonstrate a proficiency in knowledge of essential concepts of Geography. Students will be able to demonstrate the ability to analyze, interpret, and draw conclusion about geographic problems and information.

Semester I

Principles of Geomorphology

Course Objectives:

1. To provide students with basic understandings of geomorphology
2. To understand the interior of the earth in detail
3. To introduce the various theories related to the earth's surface
4. To enable to understand the basic concepts related with landform formation and evolution
5. To understand the various types of landforms and the agents responsible for their formation

Course Outcome:

1. To understand the basic concepts in geomorphology To learn the evolutionary history of earth
2. To understand concepts related to earth's crust like continental drift and plate tectonics
3. To conceptualize the processes of mountain building and geosynclinal theories of Kober and Holmes
4. To understand the processes responsible for landscape evolution like weathering and mass movements
5. To learn the different erosional and depositional landforms formed due to the action of river, wind, glacier and at the coast and in regions with limestone bedrock.

Principles of Climatology

Course Objectives:

1. To provide students with basic understandings of climatology
2. To understand the structure of the atmosphere and atmospheric circulations
3. To introduce the various concepts related to humidity and stability in the climate
4. To enable to learn the disturbances in atmosphere and classification of climate

Course Outcome:

1. To understand the basic concepts in climatology

2. To learn the spatial distribution of temperature
3. To understand the distribution of atmospheric pressure and types of winds
4. To learn the origin of monsoon from different views
5. To understand the concepts of air masses, fronts and cyclones
6. To learn the classification of climate by Thorntwaite and Koppen in depth

Perspectives in Human Geography

Course Objectives:

1. To understand the different perspectives in human geography
2. To understand the evolution of human societies with respect to rural and urban dynamics
3. To learn how different societies interact and depend on each other for existence and affect landscapes
4. To enable to learn the factors responsible for growth and changes in structure of population

Course Outcome:

1. To understand the development of the subject and its branches
2. To learn the changing nature and scope of the subject
3. To understand the history of evolution of human settlements and related theories like Central Place Theory and settlement hierarchy To learn the evolution and development of cultural hearths, role of language, religion and race To understand the components of population change like fertility and mortality, theories related to population growth
4. To understand spatial distribution of population and the concept of migration.

Spatial Organization of Economic Activities

Course Objectives:

1. To provide students with basic understandings of the subject
2. To understand the spatial distribution of economic activities
3. To learn the organization of different sectors of economy in the world
4. To enable to learn the spatio social organization of production and patterns of trade

Course Outcome:

1. To learn the definition, nature and scope of economic geography
2. To understand the different perspectives of the subject
3. To conceptualize the patterns and reasons of the existing spatial distribution of labour and economic activities
4. To learn the role of different agencies like WTO, GATT, TRIPS, SAARC etc. in international trade To learn the various industrial location theories like Weber, Losch and Gunnar Myrdal

Tools and Techniques of Spatial Analysis I (Based on Theory Papers 101-102)

Course Objectives:

1. To gain essential knowledge of geomorphic analysis through various methods
2. To develop the skill of interpreting advanced topographical maps
3. To learn the techniques of analyzing climate data

Course Outcome:

1. To learn the techniques of drawing longitudinal and projected profiles To acquaint with methods of slope analysis like Wentworth's, Robinson's and Smith's
2. To acquaint with methods of altimetric analysis like ring contour method and highest grid cell elevation method
3. To understand interpretation of Indian and foreign topographical maps To learn to read and draw different climate graphs, maps and diagrams

Tools and Techniques of Spatial Analysis II (Based on Theory Papers 103-104)

Course Objectives:

1. To gain essential knowledge of various statistical techniques for geographic analysis
2. To understand the nature and application of spatial data
3. To learn computer processing of geographical data

Course Outcome:

1. To learn measures of central tendency like weighted mean and median centre
2. To understand network analysis and its relevant calculations and associated mapping
3. To acquaint with sources and types of spatial data and their representation
4. To learn the designing of a questionnaire
5. To understand how data is processed in a computer with the help of different applications and methods

SEMESTER II

Oceanography and Hydrology

Course Objectives:

1. To provide students with basic understandings of oceanography
2. To understand formation and role of ocean currents and ocean resources
3. To introduce the various concepts of hydrology
4. To enable to understand the concept of watershed and evaporation process

Course Outcome:

1. To understand the basic concepts in oceanography like definition, nature and scope
2. To learn the distribution of temperature, density and salinity in oceans
3. To understand the origin and paths of ocean currents in all oceans
4. To acquaint with waves, tides, tsunamis, marine deposits and minerals of the sea
5. To understand the basics of hydrology like evolution, its cycle and water deposits
6. To learn the concepts related to watershed and factors influencing evaporation

Geoinformatics

Course objectives:

1. To learn the fundamental concepts of remote sensing
2. To understand the various remote sensing platforms and sensors
3. To introduce the fundamentals of GIS and spatial data models
4. To enable to understand the global navigation satellite system

Course Outcome:

1. To understand the basic concepts in remote sensing like definition, concept, electromagnetic spectrum, aerial photography, principles of photogrammetry
2. To learn the types of platforms, types of orbits, types of resolutions and sensors
3. To understand the techniques of interpreting remotely sensed data
4. To acquaint fundamentals of GIS like databases, file structures and entity relationship model
5. To understand the basics of projections, datum and coordinate reference system
6. To learn about GPS, GLONASS, NAVSTAR and NAVIC

Socio-Cultural and Political Geography

Course Objectives:

1. To provide students with basic understandings of the subject
2. To understand the concepts of marginalization and exclusion
3. To introduce the connection between gender and Geography
4. To learn the spatial dynamics of political processes.

Course Outcome:

1. To understand the basic perceptions of social Geography and the trends and approaches
2. To learn the emergence of cultural Geography
3. To understand concepts like social inequality, social stratification and proliferation of slums
4. To learn the role of gender in creating geographic spaces and role of patriarchy
5. To understand the employment situation of women in India To learn the geopolitical perspective of state, nation and nation state
6. To understand the concept of boundary

Urban Geography

Course Objectives:

1. To understand the process of urbanization and urban systems
2. To understand interconnection between urbanization, capitalism and development
3. To introduce the various perspectives on urban planning
4. To enable to understand urban transformation

Course Outcome:

1. To understand the basic processes of urbanization and its impacts on environment
2. To learn how capitalism has led to urban development
3. To understand urbanization in third world countries
4. To explore the five-year plans of India and their role in regional planning and peri urbanization

5. To understand urban transformation with special emphasis on Mumbai Metropolitan Region

Tools and Techniques of Spatial Analysis III

Course Objectives:

1. To introduce the students with essentials of image processing
2. To understand components of map layout and design
3. To learn image application and GPS

Course Outcome:

1. To learn the techniques interpreting aerial photographs and satellite imagery
2. To acquaint with computer processing of spatial data in GIS software To learn the advanced processing of vector layer
3. To learn spatial interpolation and raster reclassification
4. To learn drainage network analysis

Tools and Techniques of Spatial Analysis IV (Based on Theory Papers 203-204)

Course Objective:

1. To learn the techniques of population hierarchy and population
2. To learn the art of making mental maps and diagrams
3. To learn the statistical techniques to analyse spatial pattern

Course Outcome:

1. To learn the methods of nearest neighbor analysis and rank size rule
2. To understand the application of cartographic techniques like choropleth, isopleth, dot maps and triangular graphs
3. To understand the typology of distance and direction of space
4. Learning interpretation of various cartographic techniques, diagrams and pictures/ cartoons
5. To learn the techniques of inferential statistics like location quotient, Lorenz curve, Ginni's coefficient

SEMESTER III

Research Methodology in Geography

Course Objectives:

1. To introduce students to basics of research and its methodology
2. To understand formation of research hypothesis and its testing
3. To understand the nature and ways of analyzing geographic data
4. To undertake research report writing

Course Outcome:

1. To understand basics of research like types of research and the stages of a

- research methodology
2. To learn the meaning and importance of hypotheses
 3. To understand testing and significance level in hypothesis
 4. To acquaint with the nature and types of geographical data, levels of measurement, data tabulation and data analysis
 5. To learn the technique of research report writing in detail with a field study

Climatology of Tropics

Course Objectives:

1. To introduce students to the basics of climatology of tropics
2. To understand the atmospheric conditions of tropics
3. To learn the indices of climate of tropics
4. To understand tropical disturbances

Course Outcome:

1. To understand basics concepts like tropical climate, its importance, El Nino and heat budget
2. To learn the atmospheric conditions like stability, instability, air masses, fronts and their impacts on weather
3. To learn the oscillation of atmosphere and ocean, classification of tropical climate and genesis of monsoon
4. To acquaint with cyclones, thunderstorms, climate change and recent cyclones in the tropics

Geography of South Asia with Special Reference to India

Course Objectives:

1. To learn the physiography of South Asia
2. To understand the historical context which led to organization of society
3. To learn the organization of economy in South Asia
4. To understand the geo political and intra-regional relations and development

Course Outcome:

1. To understand the geology, drainage, climate and soil of South Asia To learn the pre colonial and colonial history, partition, demographic characteristics and socio-cultural conflicts in South Asia
2. To learn agricultural development, industrialization, urbanization and trade relations in South Asia
3. To explore the geopolitical challenges and agencies helping solve the issues in South Asia

Tools and Techniques of Spatial Analysis V

Course Objectives:

1. To introduce the students with quantitative analysis using SPSS
2. To understand environmental indicators
3. To undertake a field study, survey
4. To make a field study report

Course Outcome:

1. To learn the techniques of data analysis using SPSS like hypothesis testing using

- t-test and ANOVA
2. To learn time series data analysis
 3. To learn correlation and regression in SPSS
 4. To understand and map environmental indicators like noise and pollution in air and water
 5. To undertake a field study and make a relevant report

Tools and Techniques of Spatial Analysis VI

Course Objectives:

1. To learn the techniques interpreting O.S. sheets and topographical maps
2. To learn the art of making and interpreting thematic maps
3. To undertake spatial analysis in development studies

Course Outcome:

1. To learn interpreting topographical maps with the help of conventional signs and symbols
2. To understand the different landforms in the maps
3. To undertake interpretation of thematic maps created by NATMO of all types
4. To learn the measurement of developmental indicators and their mapping

SEMESTER IV

Geoinformatics and Healthcare

Course Objectives:

1. To introduce students with relationship between healthcare and geoinformatics
2. To understand the importance of healthcare database for geoinformatics
3. To understand the GIS technologies for healthcare
4. To learn GIS applications for healthcare

Course Outcome:

1. To understand the scope and significance of geoinformatics in healthcare
2. To learn the global health policy
3. To learn the ecology of diseases and spatial pattern of diseases To acquaint with welfare approach and its relevance in healthcare
4. To learn the healthcare system in India
5. To understand how geoinformatics helps in controlling diseases

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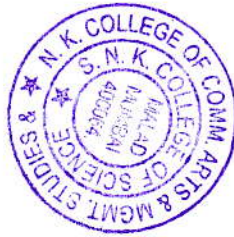
Ecology and Environment

Course Objectives:

1. To introduce students to the basic concepts of ecology
2. To understand environmental degradation
3. To learn environmental conservation and sustainability
4. To understand environmental research

Course Outcome:

1. To understand basics concepts like ecosystem, energy flow, food chain and major ecosystems
2. To learn the meaning and processes of environmental degradation To understand the environmental problems faced by Mumbai Metropolitan Region To learn the concept of ecological equilibrium and factors disturbing it
3. Learn the importance, steps and methods of conducting environmental research



PRINCIPAL.

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