

CBCS:B.A/B.Sc(Hons)Geography

Year-1 Structure of the Syllabus

Semester-I	Paper codes	Subjects	Marks	Credits
Core-1	GEOGC-1	Geomorphology	100	6
Core-2	GEOGC-2	Cartographic Techniques (Practical)	100	6
AECC-1	GEOGAECC-1	(English /M.I.L Communication)/Environmental Science	50	2
GE-1	GEOGGE-1	Rural Development/Other related discipline	100	6
		Total	350	20

Semester-II	Paper codes	Subjects	Marks	Credits
Core-3	GEOGC-3	Climatology	100	6
Core-4	GEOGC-4	Thematic Cartography(Practical)	100	6
AECC-2	GEOGAECC-2	Environmental Science/(English/M.I.L Communication)	50	2
GE-2	GEOGGE-2	Industrial Geography /Other related discipline	100	6
		Total	350	20

Year-2

Semester-III	Paper codes	Subjects	Marks	Credits
Core-5	GEOGC-5	Environmental Geography	100	6
Core-6	GEOGC-6	Economic Geography	100	6
Core-7	GEOGC-7	Field Work and Research Methodology (Practical)	100	6
SEC-1	GEOGSEC-1	Advanced Spatial Statistical Technique	50	2
GE-3	GEOGGE-3	Geography of	100	6

		Tourism/Other related discipline		
		Total	450	26
Semester-IV	Paper Codes	Subjects	Marks	Credits
Core-8	GEOGC-8	Evolution of Geographic Thought	100	6
Core-9	GEOGC-9	Statistical Methods in Geography	100	6
Core-10	GEOGC-10	Human Geography	100	6
SEC-2	GEOGSEC-2	Research Methods (Practical)	50	2
GE-4	GEOGGE-4	Disaster Management/Other related discipline	100	6
		Total	450	26

Year-3

Semester-V	Paper Codes	Subjects	Marks	Credits
Core-11	GEOGC-11	Geography of India	100	6
Core-12	GEOGC-12	Remote Sensing and GIS (Practicals)	100	6
DSE-1	GEOGDSE-1	Population Geography	100	6
DSE-2	GEOGDSE-2	Hydrology and Oceanography	100	6
		Total	400	24

Semester-VI	Paper Codes	Subjects	Marks	Credits
Core-13	GEOGC-13	Regional Planning and Development	100	6
Core-14	Geogc-14	Disaster Management based Project Work Practical	100	6
DSE-3	GEOGDSE-3	Resource Geography	100	6
DSE-4	GEOGDSE-4	Project Report	100	6
		Total	400	24

1-Cores-14 papers-Marks-1400-Credits-84

2-AECC-2 papers-Marks(50+50)100-Credits-4

3-GE-4 papers-Marks-400-Credits-24

4-SEC-2 papers-Marks-(50+ 50)100-Credits-4

5-DSE-3 papers-Marks-300-Credits-18

6-Project Report-1 paper-Marks-100-Credits-6

Total-26 papers-Marks-2400-Credits-140

Semester-I-4- papers-Marks-350-Credits-20

Semester-II-4 papers-Marks-350-Credits-20

Semester-III-5 papers-Marks-450-Credits-26

Semester-IV-5 papers-Marks-450-Credits-26

Semester-V-4-papers-Marks-400-Credits-24

Semester-VI-4-papers-Marks-400-Credits-24

Total- 26-papers-Marks-2400-Credits-140

CBCS- B.A (Hons) Syllabus

Year-1

Semester-I

Paper- 1GEOGC-1 Credits-6 Marks-100

Geomorphology

1. Geomorphology: Nature and Scope.
2. Earth: Interior Structure and Isostasy.
3. Earth Movements: Plate Tectonics, Types of Folds and Faults, Earthquakes and Volcanoes.
4. Geomorphic Processes: Weathering, Mass Wasting, Cycle of Erosion (Davis and Penck).
5. Evolution of Landforms: Fluvial (Waterfalls, Floodplains and Delta), Karst (Caverns and their Deposits), Aeolian (Blowouts and Sand-dunes), Glacial (Cirques and Moraines), and Coastal (Sea Cliffs and Beaches).

Paper- 2 GEOGC-2 Credits-6 Marks-100

Cartographic Techniques (Practical)

1. Cartography – Nature and Scope.
2. Scales – Concept and application; Graphical Construction of Plain, Comparative and Diagonal Scales.
3. Map Projections – Classification, Properties and Uses; Graphical Construction of Polar Zenithal Stereographic, Bonne's and Mercator's Projections, and reference to Universal Transverse Mercator (UTM) Projection.
4. Topographical Map – Interpretation of a Mountain area with the help of Cross and Longitudinal Profiles.
5. Slope Analysis – Wentworth's method.

Practical Record: A Project File in pencil, comprising one exercise *each*, on scale, map projection, interpretation of topographic sheet and slope analysis.

Paper- 3 GEOGAECC-1 Credits-2 Marks-50

(English/M.I.L Communication)/Environmental Science

Paper-4 GEOGGE-1 Credits-6 Marks-100

Rural Development/Other related discipline

1. Defining Development: Inter-Dependence of Urban and Rural Sectors of the Economy; Need for Rural Development, Gandhian Concept of Rural Development.
2. Rural Economic Base: Agriculture and Allied Sectors, Seasonality and Need for Expanding Non-Farm Activities
3. Area Based Approach to Rural Development: Drought Prone Area Programmes, PMGSY.
4. Target Group Approach to Rural Development: SJSY (Integrated Rural Development Programme).
5. Provision of Services – Physical and Socio-Economic Access to Elementary Education and Primary Health Care and Micro credit

Semester-II

Paper- 5 GEOGC-3 Credits-6 Marks-100

Climatology

1. Atmospheric Composition and Structure – Variation with Altitude, Latitude and Season.
2. Insolation and Temperature – Factors and Distribution, Heat Budget, Temperature Inversion.
3. Atmospheric Pressure and Winds – Planetary Winds, Forces affecting Winds, General Circulation, Jet Streams.
4. Atmospheric Moisture – Evaporation, Humidity, Condensation, Fog and Clouds, Precipitation Types, Stability and Instability.
5. Cyclones – Tropical Cyclones, Extra Tropical Cyclones, Monsoon - Origin and Mechanism.

Paper-6 GEOGC-4 Credits-6 Marks-100

Thematic Cartography (Practical)

1. Maps – Classification and Types; Principles of Map Design.
2. Diagrammatic Data Presentation – Line, Bar and Circle.
3. Thematic Mapping Techniques – Properties, Uses and Limitations; Areal Data -- Choropleth, Dot, Proportional Circles; Point Data – Isopleths.
4. Cartographic Overlays – Point, Line and Areal Data.
5. Thematic Maps – Preparation and Interpretation.

Practical Record: A Thematic Atlas with ink should be prepared on a specific theme with five plates of any state in India.

Paper-7 GEOGAECC-2 Credits-2 Marks-50

Environmental Science/(English/M.I.L Communication)

Paper-8 GEOGGE-2 Credits-6 Marks-100

Industrial Geography/Other related discipline

1. Nature, Scope and Subject Matter of Industrial Geography
2. Types, Geographical Characteristics and Location of Industries: Small and Medium Enterprises, Coal and Iron, Tertiary Industries, Rural based Industries
3. Mega Industrial Complexes: National Capital Region, Mumbai-Pune Industrial Region, Bengaluru-Tamil Nadu Industrial Region and Chota Nagpur Industrial Region
4. Impact of Industrialisation in India: Environmental; Social and Economic
5. Industrial Policy of India

Year-2

Semester-III

Paper-9 GEOGC-5 Credits-6 Marks-100

Environmental Geography

1. Environmental Geography – Concept and Scope
2. Human-Environment Relationships – Historical Progression, Adaptation

3. Ecosystem – Concept, Structure and Functions
4. Environmental Problems in Tropical, Temperate and Polar Ecosystems
5. Environmental Programmes and Policies – Global, National and Local levels

Paper-10 GEOGC-6 Credits-6 Marks-100

Economic Geography

1. Introduction: Concept and classification of economic activity
2. Factors Affecting location of Economic Activity with special reference to Agriculture, Industry and Services (Weber's theory*)
3. Primary Activities: Subsistence and Commercial agriculture, forestry, fishing and mining.
4. Secondary Activities: Manufacturing (Cotton Textile, Iron and Steel), Concept of Manufacturing Regions, Special Economic Zones and Technology Parks.
5. Tertiary Activities: Transport, Trade and Services.

* (theories relating to agriculture and services have been dealt in other papers)

Paper-11 GEOGC-7 Credits-6 Marks-100

Field Work and Research Methodology (Practical)

1. Field Work In Geographical Studies – Role, Value and Ethics of Field-Work
2. Defining the Field and Identifying the Case Study – Rural / Urban / Physical / Human / Environmental.
3. Field Techniques – Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant / Non Participant), Questionnaires (Open/ Closed / Structured / Non-Structured); Interview with Special Focus on Focused Group Discussions; Space Survey (Transects and Quadrants, Constructing a Sketch)
4. Use of Field Tools – Collection of Material for Physical and Socio-Economic Surveys.
5. Designing the Field Report – Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The students / teachers can opt to take students in or outside the NCR, depending upon, problem to be studied.
3. The duration of the field work should not exceed 10 days.
4. The word count of the report should be about **8000 to 12,000** excluding figures, tables, photographs, maps, references and appendices.
5. One copy of the report on A 4 size paper should be submitted in soft binding.

Paper-12 GEOGSEC-1 Credits-2 Marks-50

Advanced Spatial Statistical Techniques

1. Statistics and Statistical Data: Spatial and non-spatial; indices of inequality and disparity.
2. Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their geographical applications.
3. Sampling: Sampling plans for spatial and non-spatial data, sampling distributions;

sampling estimates for large and small samples tests involving means and proportions.

4. Correlation and Regression Analysis: Rank order correlation and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression; Introduction to multi-variate analysis.

5. Time Series Analysis: Time Series processes; Smoothing time series; Time series components.

Paper-13 GEOGGE-3 Credits-6 Marks-100

Geography of Tourism/Other related discipline

1. Scope and Nature: Concepts and Issues, Tourism, Recreation and Leisure Inter-Relations; Geographical Parameters of Tourism by Robinson; Type of Tourism: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage
2. Recent Trends of Tourism: International and Regional; Domestic (India); Eco-Tourism, Sustainable Tourism, Meetings Incentives Conventions and Exhibitions (MICE)
3. Impact of Tourism: Economy; Environment; Society
4. Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert and Coastal Areas; National Tourism Policy

Semester-IV

Paper-14 GEOGC-8 Credits-6 Marks-100

Evolution of Geographical Thought

1. Paradigms in Geography
2. Pre-Modern – Early Origins of Geographical Thinking with reference to the Classical and Medieval Philosophies.
3. Modern – Evolution of Geographical Thinking and Disciplinary Trends in Germany, France, Britain, United States of America.
4. Debates – Environmental Determinism and Possibilism, Systematic and Regional, Ideographic and Nomenothetic.
5. Trends – Quantitative Revolution and its Impact, Behaviouralism, Systems Approach, Radicalism, Feminism; Towards Post Modernism – Changing Concept of Space in Geography, Future of Geography.

Paper-15 GEOGC-9 Credits-6 Marks-100

Statistical Methods in Geography

1. Use of Data in Geography: Geographical Data Matrix, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).
2. Tabulation and Descriptive Statistics: Frequencies (Deciles, Quartiles), Cross Tabulation, Central Tendency (Mean, Median and Mode, Centro-graphic Techniques, Dispersion (Standard Deviation, Variance and Coefficient of Variation).
3. Sampling: Purposive, Random, Systematic and Stratified.

- 4.Theoretical Distribution: Probability and Normal Distribution.
- 5.Association and Correlation: Rank Correlation, Product Moment Correlation, and Simple Regression,

Paper-16 GEOGC-10 Credits-6 Marks-100

Human Geography

1. Definition, Nature, Scope, Major Subfields, Contemporary Relevance.
2. Space and Society: Cultural Regions; Race; Religion and Language
3. Population: Population Growth and Demographic Transition Theory, Application in India;
4. Population Distribution; Population Composition (Age, Gender, Race and Religion).
5. Settlements: Types and Patterns of Rural Settlements; Types of Urban Settlements; Trends and Patterns of World Urbanization

Paper-17 GEOGSEC-2 Credits-6 Marks-100

Research Methods (Practical)

1. Geographic Enquiry: Definition and Ethics; Framing Research Questions, Objectives and Hypothesis; LiteratureReview;PreparingSampleQuestionnaire
2. Data Collection: Type and Sources of Data; Methods of Collection; Input and Editing
3. Data Analysis: Qualitative Data Analysis; Quantitative Data Analysis; Data Representation Techniques
- 4 Structure of a Research Report: The Preliminaries; The Text; References and Citations

Paper-18 GEOGGE-4 Credits-6 Marks-100

Disaster Management /Other related discipline

- 1.Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification
- 2.Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping
- 3.Disaster in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping; Manmade disasters: Causes, Impact, Distribution and Mapping
- 4.Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During Disasters.

Year-3

Semester-V

Paper-19 GEOGC-11 Credits-6 Marks-100

Geography of India

- 1.Physical: Physiographic Divisions, soil and vegetation, climate (characteristics and classification)
- 2.Population: Distribution and growth
- 3.Economic: Mineral and power resources distribution and utilisation of iron ore, coal, petroleum, gas; agricultural production and distribution of rice and wheat, industrial development : automobile and Information technology

4.Social: Distribution of population by race, caste, religion, language, tribes and their correlates

5.Regionalisation of India: Physiographic (Spate and R. L. Singh), Socio – cultural (Sopher and A. Ahmed), Economic (Sengupta).

Paper-20 GEOGC-12 Credits-6 Marks-100

Remote Sensing and GIS (Practical)

- 1.Remote Sensing and GIS: Definition and Components, Development, Platforms and Types,
- 2.Aerial Photography and Satellite Remote Sensing: Principles, Types and Geometry of Aerial Photograph; Principles of Remote Sensing, EMR Interaction with Atmosphere and Earth Surface; Satellites (Landsat and IRS) and Sensors.
- 3.GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure
- 4.Image Processing (Digital and Manual) and Data Analysis: Pre-processing (Radiometric and Geometric Correction), Enhancement (Filtering); Classification (Supervised and Un-supervised), Geo-Referencing; Editing and Output; Overlays
- 5.Interpretation and Application of Remote Sensing and GIS: Land use/ Land Cover, Urban Sprawl Analysis; Forests Monitoring

Paper-21 GEOGDSE-1 Credits-6 Marks-100

Population Geography

1. Defining the Field – Nature and Scope; Sources of Data with special reference to India (Census, Vital Statistics and NSS).
2. Population Size, Distribution and Growth – Determinants and Patterns; Theories of Growth – Malthusian Theory and Demographic Transition Theory.
3. Population Dynamics: Fertility, Mortality and Migration – Measures, Determinants and Implications.
4. Population Composition and Characteristics – Age-Sex Composition; Rural and Urban Composition; Literacy.
5. Contemporary Issues – Ageing of Population; Declining Sex Ratio; HIV/AIDS.

Paper-22 GEOGDSE-2 Credits-6 Marks-100

Hydrology and Oceanography

1. Hydrological Cycle: Systems approach in hydrology, human impact on the hydrological cycle; Precipitation, interception, evaporation, evapo-transpiration, infiltration, ground-water, run off and over land flow; Hydrological input and output.
2. River Basin and Problems of Regional Hydrology: Characteristics of river basins, basin surface run-off, measurement of river discharge; floods and droughts.
3. Water Resource Problems and Management: water demand and supply, water quality, interstate water dispute, water Rights, institutional and financial constraints, eco-hydrological consequences of environmental degradation.
4. Ocean Floor Topography and Oceanic Movements – Waves, Currents and Tides.
5. Ocean Salinity and Temperature – Distribution and Determinants.
6. Coral Reefs and Marine Deposits and Ocean Resources: Types and Theories of Origin; Biotic, Mineral.

Semester-VI

Paper-23 GEOGC-13 Credits-6 Marks-100

Regional Planning and Development

1. Definition of Region, Evolution and Types of Regional planning: Formal, Functional, and Planning Regions and Regional Planning; Need for Regional Planning; Types of regional Planning.
2. Choice of a Region for Planning: Characteristics of an Ideal Planning Region; Delineation of Planning Region; Regionalization of India for Planning (Agro Ecological Zones)
3. Theories and Models for Regional Planning: Growth Pole Model of Perroux; Growth Centre Model in Indian Context; Myrdal, Hirschman, Rostow and Friedmann; Village Cluster
4. Changing Concept of Development, Concept of underdevelopment; Efficiency-Equity Debate
5. Measuring development: Indicators (Economic, Social and Environmental)
6. Global Pattern of Development: inter-regional variations; Human development: International, interstate comparison of India.

Paper-24 GEOGC-14 Credits-6 Marks-100

Disaster Management based Project Work (Practical)

The Project work Report based on any two field based case studies among following disasters and one disaster preparedness plan of respective college or locality:

1. Flood
2. Drought
3. Cyclone
4. Earthquake
5. Landslides
6. Human Induced Disasters: Fire Hazards, Chemical, Industrial accidents

Paper-25 GEOGDSE-3 Credits-6 Marks-100

Urban Geography

1. Urban geography: Introduction, nature and scope; history of urbanisation
2. Patterns of Urbanisation in developed and developing countries
3. Functional classification of cities: Quantitative and Qualitative Methods
4. Urban Issues: problems of housing, slums, civic amenities (water and transport)
5. Case studies of Delhi, Mumbai, Kolkata and Chennai with reference to Urban Issues

Paper-26 GEOGDSE-4 Credits-6 Marks-100

Project Report

Introducing Research Component in Under-Graduate Courses

Project work/Dissertation is considered as a special course involving application of knowledge in solving / analyzing /exploring a real life situation / difficult problem. A Project/Dissertation work would be of 6 credits. A Project/Dissertation work may be given in lieu of a discipline specific elective paper.

For papers with practical:Theory-75 marks(Mid sem 15 +End sem 60),practical -25 (End sem)

There will be no mid semester exam for practical papers.

For papers with no practical: 100 marks paper=20(Mid sem)+ 80(End sem)

50 marks paper=10 (Mid sem)+ 40 (End sem)

Subjects with practical:Each of the 14 Core Courses ,4 Discipline Specific Elective Courses and 4

Generic Elective papers(100 marks each)will have minimum 40 theory classes of 1 hour duration and minimum of 10 tutorial classes (Normally practical classes at Hons level are of 2 hours duration each)

Subjects without practicals :Each of the 14 Core Courses ,4 Discipline Specific Elective Courses and 4 Generic Elective papers (100 marks each)will have minimum 50 theory classes of 1 hour duration and minimum 10 tutorial classes .Ability enhancement(compulsory)and 2 ability enhancement (skill based) papers will have minimum 20 classes each of one hour duration.

Core Course-C,Ability Enhancement Compulsory Course-AECC,Skill Enhancement Course-SEC

Discipline Specific Elective-DSE,Generic Elective-GE

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Utkal University

Bhubaneswar

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