## GEOGRAPHY

### Course Structure

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Course Syllabus

Part A. Fundamentals of Human Geography

Unit 1: Human Geography

- Nature
- Scope

Unit 2: People

- Population:
  - Distribution
  - Density
  - Growth
- Population change:
  - Spatial patterns and structure
  - Determinants of population change
- Age-sex ratio:
  - Rural-urban composition
- Human development:
  - Concept
  - Selected indicators
  - International comparisons

Unit 3: Human Activities

- Primary activities:
  - Concept and changing trends
  - Gathering
  - Pastoral
  - Mining
• Subsistence agriculture
• Modern agriculture
• People engaged in agricultural and allied activities - some examples from selected countries

➢ Secondary activities-concept:
  • Manufacturing:
    o Types – household
    o Small scale
    o Large scale
  • Agro based industries
  • Mineral based industries
  • People engaged in secondary activities - some examples from selected countries

➢ Tertiary activities-concept:
  • Trade
  • Transport and tourism
  • Services
  • People engaged in tertiary activities - some examples from selected countries

➢ Quaternary activities – concept:
  • people engaged in quaternary activities - case study from selected countries

**Unit 4: Transport, Communication & Trade**

➢ Land transport:
  • Roads
  • Railways
  • Trans-continental railways

➢ Water transport:
  • Inland waterways
Major ocean routes

Air transport:
- Intercontinental air routes

Oil and gas pipelines

Satellite communication and cyber space:
- Importance and usage for geographical information
- Use of GPS

International Trade-Bases and changing patterns:
- Ports as gateways of international trade
- Role of WTO in international trade

Ocean:
- National rights and international treaties

**Unit 5: Human settlements**

Settlement types:
- Rural and urban
- Morphology of cities (case study)
- Distribution of mega cities
- Problems of human settlements in developing countries

**Map Work**

Map Work on identification of features based on 1-5 units on the outline/Physical/Political map of World.
B. India: People and Economy

Unit 6: People

- Population:
  - Distribution
  - Density
  - Growth
- Composition of population:
  - Linguistic
  - Religious
  - Sex
  - Rural-urban
  - Occupational-regional variations in growth of population
- Migration:
  - International
  - National
  - Causes and consequences
- Human development:
  - Selected indicators and regional patterns
- Population, environment and development

Unit 7: Human Settlements

- Rural settlements:
  - Types
  - Distribution
- Urban settlements:
  - Types
  - Distribution
  - Functional classification
Unit 8: Resources and Development

➢ Land resources:
  • General land use
  • Agricultural land use
  • Geographical conditions and distribution of major crops:
    o Wheat
    o Rice
    o Tea
    o Coffee
    o Cotton
    o Jute
    o Sugarcane
    o Rubber
  • Agricultural development and problems

➢ Water resources:
  • Availability and utilization-irrigation
  • Domestic
  • Industrial and other uses
  • Scarcity of water
  • Conservation methods:
    o Rain water harvesting
    o Watershed management

➢ Mineral and energy resources:
  • Distribution of metallic:
    o Iron ore
    o Copper
    o Bauxite
    o Manganese
  • Distribution of non-metallic:
    o Mica
    o Salt
• Conventional resources:
  o Coal
  o Petroleum
  o Natural gas
  o Hydroelectricity
• Non-conventional energy sources:
  o Solar
  o Wind
  o Biogas

➢ Conservation Industries:
  • Types
  • Factors of industrial location
  • Distribution and changing pattern of selected industries:
    o Iron and steel
    o Cotton textiles
    o Sugar
    o Petrochemicals
    o Knowledge based industries
  • Impact of liberalization, privatization and globalization on industrial location
  • Industrial clusters

➢ Planning in India:
  • Target group area planning (case study)
  • Idea of sustainable development (case study)

Unit 9: Transport, Communication and International Trade

➢ Transport and communication:
  • Roads
  • Railways
  • Waterways
• Airways
• oil and gas pipelines
• Geographical information and communication networks

➢ International trade:
  • Changing pattern of India's foreign trade
  • Sea ports and their hinterland and airports

Unit 10: Geographical Perspective on selected issues and problems

➢ Environmental pollution
  • Urban - waste disposal

➢ Urbanisation:
  • Rural-urban migration
  • Problems of slums

➢ Land degradation

Map Work

➢ Map work on locating and labelling of features based on above units on outline map of India.

Part-C Practical Work

Unit 1: Processing of Data and Thematic Mapping

➢ Type and Sources of data:
  • Primary
  • Secondary and other sources

➢ Tabulating and processing of data:
  • Calculation of averages
  • Measures of central tendency
- Deviation
- Rank correlation

➢ Representation of data - construction of diagrams:
  - Bars
  - Circles
  - Flowchart
  - Thematic maps
  - Construction of dot
  - Choropleth maps
  - Isopleth maps

➢ Data analysis and generation of diagrams:
  - Graphs and other visual diagrams using computers

**Unit 2: Field Study or Spatial Information Technology**

➢ Field visit and study:
➢ Map orientation
➢ Observation and preparation of sketch
➢ Survey on any one of the local concerns:
  - Pollution
  - Ground water changes
  - Land use and land-use changes
  - Poverty
  - Energy issues
  - Soil degradation
  - Impact of floods and drought
  - Catchment area of school

Market survey and Household survey (any one topic of local concern may be taken up for the study; observation and questionnaire survey may be adopted for the data collection; collected data may be tabulated and analysed with diagrams and maps).
Students can be given different topics to get more insight into various problems of society.

OR

Unit 3: Spatial Information Technology

- Introduction to GIS:
  - Hardware requirements and software modules
  - Data formats
  - Raster and vector data, data input, editing and topology building
  - Data analysis
  - Overlay and buffer