SNDT Women's University, Mumbai

Credit structure For Under Graduate Programmes in Humanities, Science and Technology and Interdisciplinary Studies Faculties

As per Government of Maharashtra Circular dated 13th March, 2024

NEP – 2020

AEDP

(w.e.f. 2025-26)

AEDP STRUCTURE OF GEOGRAPHY

Programme: B.A. Geographys

Programme/ Degree		**B.A.**
Specialization		**Geography**
Preamble		Undergraduate (FYUG) degree programmewith Geography as a major is a full-time 3/4 Years Programme (Level 4 to 6) divided into six / eight semesters with the option of Entry and Exit at every level of the programme. Three year Bachelor's degreeprogramme (Level 6) is maximum of 88 credits. Fourth year of degree programme with honours or honours with Research (Level 6)is maximum of 44 credits. During the programme, students will get acquainted with the knowledge of Physical Geography, Human Geography, Climatology Economic Geography, Population Geography, cartography, surveying, map reading. They will be equipped with the practical knowledge of Socio-Economic Development Survey, Field Excursion and Report Writing, Recent Trends in Geographic Research, Environmental lawsthat can be applied in various fields, and this will help them to be efficient for understanding basic concepts and enhance their level of knowledge.
Programme Specific Outcomes (PSOs)		After completing this programme, Learner will
	1.	The B. A. Geography programme aims to enhance geographical knowledge and awareness amongst students regarding the present scenario of environmental degradation, climate change, demographic issues, Urbanization and other problems affecting the earth.
	2.	The programme will also empower the students with the skills required to analyze, evaluate and act upon the problems by teaching them the modern techniques like GIS, GPS and Remote Sensing.
	3.	The programme will encourage students to study further for their post- graduate degree and take up further research in the field of Geography.
	4.	The programme aims to increase the employability quotient of the students and make them a skilled and educated work-force.
Eligibility Criteria for Programme		XII Pass Certificate or Equivalent
Intake (For SNDT WU Departments and Conducted Colleges)		As per university norms

Structure with Course Titles:

Exit with UG Certificate with 4 extra credits (44 + 4 credits)

AEDP BA GEOGRAPHY (SEM III TO VI)

Sr. No.	Courses	Type of Course	Credits	Marks	Int.	Ext
	Semester III					
30110711	Climatology	Major (Core)	4	100	50	50
30110712	Geography of Maharashtra	Major (Core)	4	100	50	50
30110713	Human Geography	Major (Core)	4	100	50	50
30310711	Economic Geography	Minor Stream	2	50	0	50
30410711	Geography of Natural Disaster	OEC	2	50	0	50
3.6		AEC (Modern Indian Language)	2	50	50	0
30110704	Tourism Geography	Major (Core)	2	50	50	0
3.8		CC	2	50	50	0
			22	**550**	**300**	**250**
	Semester IV					
40110711	Oceanography	Major (Core)	4	100	50	50
40110712	Geography of India	Major (Core)	4	100	50	50
40310711	Settlement Geography	Minor (Core)	4	100	50	50
40410711	Geography of Manmade Disaster	OEC	2	50	0	50
40710711	Basics of Surveying	SEC	2	50	0	50
4.6		AEC(Modern Indian Language)	2	50	0	50
40310702	Bio Geography	Minor (Core)	2	50	50	0
4.8	CC	CC	2	50	50	0
			22	**550**	**250**	**300**

Exit with UG Diploma with 8 extra credits (88 + 8 credits)

Sr. No.	Courses	Type of Course	Credits	Marks	Int	Ext
	Semester V					
50110711	Agricultural Geography	Major (Core)	4	100	50	50
50110722	Practical of Cartography and Weather Data Analysis	Major (Core)	4	100	50	50
51010711	Geography of Indian Heritage	IKS (Major Specific)	2	50	0	50
50310712	Population Geography	Minor Stream	4	100	50	50
50310711	Recourse Geography	Minor Stream	4	100	50	50
50610701	Fundamentals of GIS	VSC-IV	2	50	50	00
50110703	Geography of Tourism Management	Major (Core)	2	50	50	0
			22	**550**	**300**	**250**
	Semester VI					
61210721	Apprenticeship	Apprenticeship	20	500	250	250
61510721	Community Engagement	CE	2	50	0	50
			22	**550**	**250**	**300**

Semester III

3.1 Major (Core)

Course Title	**Climatology**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Demonstrate basic Concepts of Climatology
	2. Summarize the Theories regarding Climatology
	3. Interpret the Fundamental Concepts of Climatology
Module 1(Credit 1): Introduction to Atmosphere	
Learning Outcomes	After learning the module, learners will be able to
	1. Define the atmosphere and explain its composition.
	2. Analyse the layers of the atmosphere and their characteristics.
Content Outline	1.1 Definitions of Atmosphere 1.2 Composition of Atmosphere 1.3 Structure of Atmosphere i) Troposphere, ii) Stratosphere, iii) Mesosphere, iv)Thermosphere a) Ionosphere and b) Exosphere
Module 2(Credit 1): Insolation and Heat Budget	
Learning Outcomes	After learning the module, learners will be able to
	1. Elaborate the concepts of insolation, solar constant, and Earth's albedo.
	2. Illustrate the factors influencing the distribution of insolation and analyse the Earth's heat budget.
Content Outline	2.1 Meaning and Definition of Insolation, Solar Constant and Albedo of the Earth 2.2 Distribution of Insolation - Factors affecting the distribution of Insolation 2.3 Heat Budget of the Earth and Atmosphere
Module 3(Credit 1): Elements of Weather and Climate	
Learning Outcomes	After learning the module, learners will be able to
	1. Differentiate between weather and climate and describe their key elements.
	2. Illustrate the various forms of precipitation and types of rainfall.

Content Outline	3.1 Meaning and Definition of Weather and Climate 3.2 Elements of Weather and Climate: 3.2.1 Temperature 3.2.2 Atmospheric Pressure 3.2.3 Winds 3.2.4 Humidity 3.2.5 Forms of Precipitation: Rain, Drizzle, Snow, Sleet, Hail 3.3 Types of Rainfall
Module 4(Credit 1): Weather Forecasting	
Learning Outcomes	After learning the module, learners will be able to
	1. Diagnose the importance and procedures of weather forecasting, including its tools and methods.
	2. Describe various methods of weather forecasting and evaluate its application in India.
Content Outline	4.1 Meaning and Importance 4.2 Procedure of Weather Forecasting 4.3 Tools in Weather Forecasting 4.4 Methods of Weather Forecasting: Synoptic, Statistical and Numerical Method 4.5 Weather Forecasting in India

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. **Seminars/Presentations**
   - Atmosphere & Climate System – Structure & composition (M1)
   - Earth's Heat Budget – Balance of radiation (M2)
   - Weather Forecasting Science – Role of temp, pressure, humidity (M3)
   - Modern Forecasting Techniques – Traditional vs. AI models (M4)
2. **Group Discussions**
   - Atmospheric Layers & Human Activities – Aviation, communication, weather (M1)
   - Urban Areas & Heat Budget – Impact of urban heat islands (M2)
   - Climate Change & Rainfall – Changing precipitation patterns (M3)
   - Weather Forecasting Accuracy – Challenges & improvements (M4)
3. **Projects**
   - 3D Model of Atmosphere – Layers & characteristics (M1)
   - Albedo Case Study – Ice caps vs. deserts (M2)
   - Weather Tracking of Two Cities – Week-long comparison (M3)
   - Mini Weather Station – Measuring temp, pressure, humidity (M4)
4. **Home Assignments**
   - Ionosphere & Communication – Short report (M1)
   - Insolation Variation Diagram – Across latitudes & seasons (M2)
   - Types of Rainfall Report – With diagrams (M3)
   - IMD Monsoon Forecasting – Case study (M4)

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1. Aguado, E., & Burt, J. E. (2001). *Understanding weather and climate*. Prentice Hall.
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Semester III

3.2 Major (Core)

Course Title	**Geography of Maharashtra**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Identify Maharashtra's geographical location, size, shape, and administrative divisions.
	2. Describe Maharashtra's physical divisions and drainage systems.
	3. Associate the climate characteristics, factors, and rainfall distribution in Maharashtra.
	4. Analyse population distribution, agriculture, and energy resources in Maharashtra.
Module 1(Credit 1): Geographical Personality of Maharashtra	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify the location, size, shape, and area of Maharashtra.
	2. Elaborate the administrative divisions of Maharashtra and their significance.
Content Outline	**1. Geographical Personality of Maharashtra** 1.1 Location 1.2 Site,Size,Shape 1.3 Area 1.4 AdministrativeDivision
Module 2(Credit 1): Physical Setting of Maharashtra	
Learning Outcomes	After learning the module, learners will be able to
	Interpret the physical divisions of Maharashtra.
	Identify the rivers and drainage systems in Maharashtra.
Content Outline	2 . 1 PhysicalDivisionofMaharashtra 1. Kokan Region 2. SahyadriPlateau 3. Maharashtra Plateau 2.2 Drainage 1. RiversinKokan Region 2. RiversinPlateauRegion (Tapi-PurnaValley,GodavariValley, Krishnabasin,PranhitaValley)
Module 3(Credit 1): Climate of Maharashtra	
Learning Outcomes	After learning the module, learners will be able to

	1. Distinguish the characteristics of climate and factors affecting climate in Maharashtra.
	2. Analyze the distribution of rainfall, seasons, and climate regions in Maharashtra.
Content Outline	**3. Climate of Maharashtra** 3.1 Characteristics ofClimate 3.2 Factors affectingClimate 3.3 Seasons 3.4 DistributionofRainfall&its Characteristics 3.5 Climate Regions of Maharashtra
Module 4(Credit 1): Socio-Economic Factors in Maharashtra	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyse the socio-economic factors affecting population distribution, urbanization, and agriculture in Maharashtra.
	2. Elaborate the key industries of Maharashtra, focusing on cotton, textiles, sugar, and information technology.
Content Outline	**4. Socio-Economic Factors in Maharashtra** 4.1 Population Factor affectingthedistributionof Populationin Maharashtra PopulationDistribution Urbanizationin Maharashtra 4.2 Agriculture Characteristics ofAgriculture Majorcrops–Rice,Wheat,Cotton, Sugarcane. HorticultureinNorth Maharashtra– Banana,Pomegranate Agricultureproblems &prospects 4.3 Industries of Maharashtra Industries: Cotton and textiles, Sugar, Information and Technology 4.5 Major Industrial divisions

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. **Seminars/Presentations**
   - Maharashtra's location, size, shape, and administrative divisions. (M1)
   - Physical divisions and drainage systems of Maharashtra.(M2)
   - Maharashtra's climate characteristics, rainfall distribution, and seasons.(M3)
   - Discuss Maharashtra's industries (Cotton, Textiles, IT) and their economic significance.(M4)
2. **Group Discussions**
   - Impact of administrative divisions on Maharashtra's development.(M1)
   - Importance of rivers in agriculture and urbanization.(M2)
   - Debate how climate change is affecting agriculture in Maharashtra.(M3)
   - Challenges of urbanization vs. rural development.(M4)
3. **Projects**

- Create a map highlighting Maharashtra's geographical features and administrative divisions.(M1)
- Conduct a study of drainage systems in the Kokan and Plateau regions.(M2)
- Create a climate zone map illustrating Maharashtra's rainfall patterns and seasons.(M3)
- Research the economic impacts of agriculture and industry in Maharashtra.(M4)

4. Home Assignments

- Report on Maharashtra's size, shape, and economic impact.(M1)
- Research the role of rivers in the Kokan and Plateau regions.(M2)
- Prepare a report on the rainfall distribution and its regional variations.(M3)
- Write about the future of agriculture and the problems and prospects it faces.(M4)

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Semester III

3.3 Major (Core)

Course Title	**Human Geography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Acquiring the students with the nature of Man Environment relationship
	2. Analise world pattern of Population Distribution
	3. Evaluate types of migration and various pull and push factors of migration
Module 1(Credit 1): Introduction of Human Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Acquire the knowledge about basic structure of Human geography
	2. Differentiate various approaches of human Geography
Content Outline	1.1 Introduction, Definition, Meaning 1.2 Nature and Scope of human geography 1.2 Relation with Physical Geography.
Module 2(Credit 1): Man and Environmental Relationship	
Learning Outcomes	After learning the module, learners will be able to
	1. Distinguish the concept of physical and cultural Environment
	2. Apply Various models of Understand the Nature of Man Environment relationship
Content Outline	2.1 concept of physical and cultural environments 2.2 study of Environmentalism 2.3 Determinism 2.3 Possibilism 2.4 Stop and Go concept
Module 3(Credit 1): Population	
Learning Outcomes	After learning the module, learners will be able to
	1. Analise the pattern of population distribution in the world
	2. Criticize the problems of the population in the developed and underdeveloped countries
	3. Differentiate the types of migration
Content Outline	3.1 Distribution of population –world pattern. 3.2 Population Density. 3.3 Factors affecting Distribution. 3.4 Migration – Types causes and effects.
Module 4(Credit 1): Study of Trible communities	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze the lifestyle of tribal communities
	2. Evaluate distribution of world tribes
Content Outline	4.1 Geographical factors affecting life patterns of following Tribal communities. 4.2 Study of pigmy, Eskimos and Kyrgyz. 4.3 Tribes of India – Bhills, Nagas, Mahadev Koli.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. **Seminars/Presentations**
- The nature and scope of human geography and its relationship with physical geography (M1).
- Models of the Man-Environment relationship (Determinism, Possibilism) (M2).
- World population distribution and population density (M3).
- The lifestyles of tribal communities and the geographical factors affecting them (M4).

2. **Group Discussions**
- Different approaches to human geography (M1).
- How physical and cultural environments influence human behavior (M2).
- Migration types, causes, and effects (M3).
- Impact of geography on tribal communities (M4).

3. **Projects**
- The historical development of human geography (M1).
- Compare Determinism and Possibilism models (M2).
- Migration patterns (M3).
- Study of tribal communities and their geographical environment (M4).

4. **Home Assignments**
- Write about the nature and scope of human geography (M1).
- Essay on environmentalism (M2).
- Report on population problems in developed vs. underdeveloped countries (M3).
- Report on tribal communities and their lifestyles (M4).

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Semester III

3.4 Minor Stream

Course Title	**Economic Geography**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Define economic geography and explain its nature, scope, and significance.
	2. Analyze the importance and relevance of economic geography in understanding global economies.
	3. Explore the connection between economic geography and other social sciences.
	4. Identify and apply different approaches to the study of economic geography.
Module 1(Credit 1): Introduction to Economic Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Examine the relationship between economic geography and social sciences.
	2. Examine different approaches to studying economic geography.
Content Outline	**1. Introduction to Economic Geography** 1.1 Definition, nature and scope of economic geography. 1.2. Need and significance of economic geography 1.3. Economic geography and its relation with social sciences 1.4. Approaches of the study of economic geography
Module 2(Credit 1): Economic Activities	
Learning Outcomes	After learning the module, learners will be able
	1. Define the concept of economic activities and evaluate their problems and prospects.
	2. Differentiate between primary, secondary, and tertiary economic activities with examples.
Content Outline	2. **Economic Activities** 2.1 Introduction and concept of economic activity with problems and prospect 2.2. Primary activity 2.3. Secondary activity 2.4. Tertiary activity

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Semester III

3.5 OEC

Course Title	**Geography of Natural Disaster**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Summarize the basic Concepts of Natural Disaster
	2. Discuss the Theories regarding of Natural Disaster.
	3. Interpret the Fundamental Concepts of Natural Disaster.
Module 1(Credit 1): Lithological Disasters	
Learning Outcomes	After learning the module, learners will be able to
	1. Clarify the concept, objectives, and significance of understanding Natural disasters.
	2. Identify and categories, types of Natural disasters caused by Earthquake, Volcanoes, land slides
Content Outline	1.1 Definitions, Causes, Effects and Protective and Preventive Measures 1.1.2 Earthquakes 1.1.3 Volcanoes 1.1.4 Land Slides
Module 2(Credit 1): Climatological Disasters	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the concept of storm, flood, drought
	2. Identify and categories, types, Effects and protective and Preventive Measures of Climatological Natural Disasters
Content Outline	2.1 Definitions, Causes, Effects and protective and Preventive Measures 2.2 Climatological Disasters 2.2.1 Cyclone 2.2.2 Floods 2.2.3 Urban Floods 2.2.4 Heat Waves 2.2.5 Glacial Retreat and Ice Melting

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Semester III
3.7 Major Core

Course Title	**Tourism Geography**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the fundamental concepts, nature, and scope of tourism geography.
	2. Apply knowledge of key tourism components such as attraction, accommodation, accessibility, activities, and amenities.
	3. Identify, classify, and analyze different types of tourism and their geographical characteristics.
	4. Evaluate the role and significance of geography in tourism development at regional and national levels.
Module 1(Credit 1): Introduction to Tourism Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the basic concepts and components of tourism.
	2. Analyze the role and importance of geography in tourism.
Content Outline	1.1 Definition of Tourists and Tourism 1.2 Nature and Scope of Tourism Geography 1.3 Components of Tourism: Attraction, Accommodation, Accessibility, Activities and Amenities 1.4 Role of Geography in Tourism 1.5 Importance of Tourism
Module 2(Credit 1): Classification and Types of Tourism	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify and classify different types of tourism.
	2. Compare various tourism forms and explain their geographical significance.
Content Outline	2.1 Classification of Tourism: In-bound (National) & Out-bound (International) 2.2 Types of Tourism: Geo-Tourism, Agro-Tourism, Eco-Tourism, Wildlife Tourism, Heritage Tourism, Adventure Tourism, Religious Tourism, Sports Tourism, Health and Medical Tourism

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Two out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminars / Presentations

- Presentation on nature and scope of Tourism Geography.
- Seminar on components of tourism.
- Presentation on role of geography in tourism.
- Seminar on major types of tourism.

2. **Group Discussions**

- Discussion on the importance of geography in tourism.
- Debate on National vs. International tourism.

- Discussion on the impact of eco-tourism.
- Discussion on geographical significance of different tourism types.

3**. Projects / Reports**

- Report on tourism potential of a selected destination.
- Project comparing two types of tourism.
- Report on components of tourism in a chosen area.
- Analytical project on geographical factors influencing tourism.

4**. Home Assignments**

- Assignment on basic concepts of tourism.
- Short notes on components of tourism.
- Assignment on classification of tourism.
- Assignment on any one tourism type and its geographical relevance.

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Semester IV

4.1 Major (Core)

Course Title	**Oceanography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. To study the basic part of oceanography
	2. To get the information about salinity and temperature of ocean water
	3. To study the relationship between the temperature and ocean currents
	4. To study the origin and effects of tsunami
Module 1(Credit 1):Configuration and Submarine Relief of Ocean Floor	
Learning Outcomes	After learning the module, learners will be able to
	1. Adapt the concept of the hydrosphere and the significance of studying oceanography.
	2. Describe the surface configuration of the ocean floor and analyze the submarine relief features of the Atlantic and Indian Oceans.
Content Outline	**1. Configuration and Submarine Relief of Ocean Floor** 1.1 Meaning and concept of Hydrosphere 1.2 Importance of the study of Oceanography 1.3 Surface configuration of ocean Floor (submarine relief) 1.4 submarine relief of Atlantic & Indian ocean
Module 2(Credit 1): Properties of ocean water	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the distribution and factors affecting the temperature of ocean water.
	2. Define salinity, interpret isohalines, and analyze salinity distribution in open oceans, partially enclosed seas, inland seas, and lakes.
Content Outline	**2. Properties of ocean water** 2.1 Temperature of ocean water i) Distribution of Temperature of ocean water 2.2 salinity of ocean water i) Definition and meaning ii) Isohalines 2.3 Factors affecting the distribution of Salinity of ocean water i) Distribution of salinity- open ocean, partially enclosed sea, inland sea & lakes
Module 3(Credit 1): Ocean currents	
Learning Outcomes	After learning the module, learners will be able to
	1. Define ocean currents, classify their types, and explain the causes of their origin.
	2. Analyze the ocean currents of the Atlantic and Indian Oceans, including El Niño and La Niña, and assess their effects.

Content Outline	3. **Ocean Currents** 3.1 Definition, meaning and types of ocean Currents 3.2 causes of origin of the ocean currents 3.3 Ocean currents of Atlantic and Indian 3.4 Ocean, El Nino and La Nina current 3.5 Effects of ocean currents
Module 4(Credit 1): Ocean coast and ocean Tides	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the nature and types of ocean coasts, including submergence and emergence coasts, and explain the definition, types, and importance of ocean tides.
	2. Define tsunami waves, discuss their characteristics, and analyze their effects on coastal regions.
Content Outline	**4. Ocean coast and ocean Tides** 4.1 Definition and nature of ocean coast 4.2 Types of ocean coast i)submergence coast ii) emergence coast 4.3 OceanTides i)Definition and meaning of ocean tides ii) Types of tides i)Spring ii) Neap iii) Importance of Tides 4.4 Tsunamiwaves i)Definition and characteristics ii) Effects of Tsunami waves

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1) Seminars/Presentations

- Factors affecting the temperature and salinity of ocean water, and compare salinity distribution in open oceans, inland seas, and lakes. (M2)
- The types of ocean currents, their causes, and the effects of El Niño and La Niña on global climate. (M3)
- The types of ocean coasts (submergence and emergence) and their geographical significance. (M4)

2) Group Discussions

- Impact of ocean water temperature and salinity on marine life and climate change. (M2)
- How ocean currents influence global weather patterns and the shipping industry. (M3)
- Debate on the causes and effects of tsunami waves and the strategies for reducing their impact on coastal regions. (M4)

3) Project

- Research and create a detailed report on the distribution of ocean temperature and salinity, and its effects on the marine environment. (M2)
- Analyze and present a report on the ocean currents of the Atlantic and Indian Oceans, their origins, and global impacts. (M3)
- Conduct a project on ocean tides, including types (spring, neap) and their importance to navigation and coastal ecology. (M4)

4) Home Assignment

- Write an essay on the human-induced factors affecting the distribution of ocean water temperature and salinity. (M2)
- Prepare a home assignment on the effects of El Niño and La Niña on weather patterns and global economies. (M3)
- Complete a report on tsunami waves, detailing their characteristics and providing an analysis of a recent tsunami disaster. (M4)

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Semester IV

4.2 Major (Core)

Course Title	**Geography of India**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Identify India's geographical location, size, shape, and administrative divisions.
	2. Describe India's physical divisions and drainage systems.
	3. Examine the climate characteristics, factors, and rainfall distribution in India.
	4. Analyse population distribution, agriculture, and energy resources in India.
Module 1(Credit 1): Introduction/Geographical personality	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify the location, size, shape, and area of India.
	2. Examine the administrative divisions of India and their significance.
Content Outline	1.1 Location: Site and Situation 1.2 Adjacent countries: Economic and Political Relationship. 1.3 Administrative Divisions 1.4 State wise Geographical Area
Module 2(Credit 1): Physiography	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret the physical divisions of India.
	2. Identify the rivers and drainage systems in India.
Content Outline	2.1 Physiographic divisions of India 2.2 Relief features of: 2.2.1 Himalaya 2.2.2 Northern Plain (Gangetic Plane) 2.2.3 Peninsular Plateau: 2.2.4Coastal Plain and islands **2.3 Drainage:** 2.3.1 Himalayan Drainage System 2.3.2 Peninsular Drainage System
Module 3(Credit 1): Climate, Soil and Natural Vegetation	
Learning Outcomes	After learning the module, learners will be able to
	1. Differentiate the characteristics of climate and factors affecting climate, Soil, Natural vegetation in India.
	2. Analyze the distribution of rainfall, seasons, and climate regions, Soil, Natural vegetation in India.

Content Outline	3.1 Climate 3.1.1 Climatic Regions of India 3.1.2 Factors Affecting Climate 3.1.3 Monsoon **3.2 Soil:** 3.2.1 Major soil types 3.2.2 Soil erosion and conservation. **3.3 Natural Vegetation:** 3.3.1 Major types of vegetation 3.3.2 Distribution of vegetation 3.3.3 Economic importance of forest
Module 4(Credit 1): Population and Industries	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyse the socio-economic factors affecting population distribution, urbanization, and agriculture in India.
	2. Identify the key industries of Maharashtra, focusing on cotton, textiles, sugar, and information technology.
Content Outline	**4.1 Population:** 4.1.1 Distribution of Population 4.1.2 Density of Population 4.1.3 Factors Affecting Distribution of Population **4.2 Industries:** 4.2.1 iron and steel 4.2.2 Cotton and textile 4.2.3 Information Technology

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1) **Seminars/Presentations:**
   - Geographical Personality of India – Presentation on India's location, size, shape, and its geopolitical significance with neighbouring countries. (M1)
   - Physiographic Divisions of India – Seminar on major relief features such as the Himalayas, Northern Plains, Peninsular Plateau, and Coastal Plains.(M2)
   - Monsoon & Climatic Regions of India – Presentation on the monsoon system, factors influencing climate, and seasonal variations. (M3)
   - Major Industries of India – Analysis of key industries like iron & steel, cotton textiles, and IT sector with case studies. (M4)
2) **Group Discussions:**
   - Economic & Political Relations with Neighbouring Countries – Discussion on how geography influences India’s trade, security, and diplomacy. (M1)
   - Rivers and Drainage Systems – Debate on the significance of Himalayan vs. Peninsular river systems in India’s development.(M2)
   - Soil Conservation & Afforestation – Discussion on the impact of deforestation, soil erosion, and strategies for conservation.(M3)
   - Population Growth & Urbanization – Debate on the challenges and opportunities arising from India's increasing population and urban expansion. (M4)
3) **Projects:**

- Mapping India's Administrative Divisions – Create thematic maps showcasing India’s states, union territories, and major geographical regions. (M1)
- Comparative Study of River Basins – Research and compare major river systems, their economic importance, and challenges. (M2)
- Rainfall Distribution & Climatic Patterns – Prepare a GIS-based or graphical representation of India's climate zones and rainfall patterns. (M3)
- Industrial Growth & Resource Utilization – Case study on Maharashtra’s major industries, their growth trends, and resource dependency.(M4)

4) Home Assignments:

- India's Location & Geopolitical Importance – Write an essay on how India's geographical position affects its economic and political landscape.(M1)
- Relief Features & Drainage System – Describe the physiographic features of India and their impact on agriculture and settlement patterns.(M2)
- Natural Vegetation & Economic Importance of Forests – Explain the distribution of vegetation in India and its role in biodiversity conservation.(M3)
- Industrial Distribution & Population Density – Analyze the link between population density and the location of industries in India.(M4)

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Semester IV

4.3 Minor (Core)

Course Title	**Settlement Geography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Acquaint the students with the spatial and structural characteristics of human settlements.
	2. Evaluate the spatial issues related to urban and rural settlements
	3. Develop awareness about smart village and smart city.
Module 1(Credit 1): Introduction to Settlement Geography	
Learning Outcomes	1. Comprehend basic concepts of Settlement Geography.
	2. Assess the role of various approaches in the development of settlement geography.
Content Outline	**1. Introduction to Settlement Geography** 1.1 Definitions and concepts of Settlement Geography 1.2 Nature and scope of the settlement geography 1.3 Development of settlement geography
Module 2(Credit 1): Site and situation of rural settlement	
Learning Outcomes	After learning the module, learners will be able to
	1. Define basic concepts of Rural Settlement. 2. Assess the role of various approaches in the development of rural settlement.
Content Outline	**2. Site and situation of rural settlement** 2.1 Types of rural settlements 2.2 Building material and house types in India. 2.3 Structure of a Indian village, 2.4 Rural land use
Module 3(Credit 1): Rural and Urban settlement	
Learning Outcomes	1. After learning the module, learners will be able to
	2. Differentiate rural and urban settlements based on demographic, social, and economic aspects.
	3. Explain the definition, hierarchy, and functional classification of urban settlements.
Content Outline	3. **Rural and Urban settlement** 3.1 Rural and Urban settlement 3.2 Demographic, social and economic difference of rural and urban settlements 3.3 Definition of town, Hierarchy of urban settlements 3.4 Functional classification of towns.
Module 4(Credit 1): Urban Morphology	
Learning Outcomes	1. After learning the module, learners will be able to

	2. Identify and describe the functional zones of urban areas, including the CBD, suburbs, and the rural-urban fringe.
Content Outline	**4. Urban Morphology** 4.1 C. B. D. and other functional zones 4.2 Suburbs and Rural urban fringe 4.3 Christller's Central place theory 4.4 Urban problems

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. **Seminars/Presentations:**
   - Introduction to Settlement Geography: Nature and Scope (M1)
   - Rural Settlements: Site, Situation, and Types (M2)
   - Urban Morphology: Functional Zones and CBD (M4)
   - Christaller's Central Place Theory and Its Application (M4)
2. **Group Discussions:**
   - Rural vs. Urban Settlements: Key Differences (M3)
   - Building Materials and House Types Across India (M2)
   - Impact of Urbanization on Rural Settlements (M3 & M4)
   - Urban Problems and Sustainable Solutions (M4)
3. **Projects:**
   - Case Study on Rural Land Use (M2)
   - Mapping Functional Zones of a Selected Urban Area (M4)
   - Hierarchy and Functional Classification of Towns in a Region (M3)
   - Comparative Analysis of a Smart Village and a Smart City (M3 & M4)
4. **Home Assignments:**
   - Explain the Nature and Scope of Settlement Geography (M1)
   - Factors Influencing the Distribution of Rural Settlements (M2)
   - Discuss the Relevance of Christaller's Central Place Theory (M4)
   - Evaluate the Socio-Economic Differences Between Rural and Urban Settlements (M3)

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Semester IV

4.4 OEC

Course Title	**Geography of Manmade Disaster**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. To classify causes of manmade disasters.
	2. To acquire knowledge of manmade disasters and their effects.
	3. To find ways to control and prevent manmade disasters.
Module 1(Credit 1):Introduction – Concept of Manmade Disasters	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze the concept, objectives, and significance of understanding manmade disasters.
	2. Identify and categorize types of manmade disasters caused by industrialization, urbanization, and socio-political-cultural factors.
Content Outline	1. **Introduction – Concept of Manmade Disasters** 1.1 Objectives and significance 1.2 Types of Manmade Disasters 1.2.1 Manmade disasters caused due to industrialization 1.2.2 Manmade disasters caused due to urbanization 1.2.3 Manmade disasters caused due to social, political and cultural factors
Module 2(Credit 1): Man Made Disasters – causes effects & Control	
Learning Outcomes	After learning the module, learners will be able
	1.Analyze the causes, effects, and control measures for various types of manmade disasters, including fires, accidents, and industrial disasters.
	2. Examine case studies like Chernobyl, Fukushima, Bhopal Gas Tragedy, and Iraq War to understand the global impact of industrial and marine disasters.
Content Outline	2. **Man Made Disasters – causes effects & Control** 2.1 Fire – Building Fire, Coal Fire, Forest Fire, Oil Fire 2.2 Accidents- Road, Rail, Air and Sea. 2.3 Industrial Disasters – Chernobyl- Russia, Fukushima - Japan, Bhopal Gas Tragedy- India. Iraq War and Marine Disasters

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Semester IV

4.5 SEC

Course Title	**Basics of Surveying**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Understand the basics of surveying and its importance
	2. Explain different types of surveying techniques.
	3. Conduct Plane Table Surveying and Prismatic Compass Surveying.
	4. Interpret and analyze survey data accurately.
Module 1(Credit 1): Introduction to Surveying	
Learning Outcomes	After learning the module, learners will be able to
	1. Understand importance of surveying and classify different surveying techniques.
	2. Examine different types of errors in surveying process.
Content Outline	**1. Introduction to Surveying** 1.1 Definition and Purpose of Surveying. 1.2 Classification of Surveying. 1.3 Principles of Surveying. 1.4 Measurement Units and reasons of Errors in Surveying.
Module 2(Credit 1): Practical's of Plane Table and Prismatic Compass Survey	
Learning Outcomes	After learning the module, learners will be able
	1. Handle the Plane table instrument and carried out survey.
	2. Handle the Prismatic compass instrument and carried out survey.
Content Outline	2.1 **Plane Table Survey** 2.1.1 Introduction to Plane Table Survey and accessories used. 2.1.2 Radiation Method, Intersection Method. 2.1.3 Advantages and Limitations. 2.1.4 Data Plotting. 2.2**Prismatic Compass Survey** 2.2.1 Introduction to Prismatic Compass 2.2.2 Components and Working Principle of Prismatic Compass. 2.2.3 Conducting Compass Traversing and Plotting. 2.2.4 Advantages and Limitations

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Semester-IV

4.7 Minor Core

Course Title	**Bio Geography**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the fundamental concepts, definitions, nature, scope, historical development, and branches of biogeography, along with the basic concepts of ecosystems and the biosphere.
	2. Analyze the structure and components of ecosystems and the biosphere, and examine major biogeographic processes influencing the distribution of plants and animals.
	3. Apply the principles of biogeography to interpret ecosystem–biosphere interactions and spatial patterns of biodiversity.
	4. Evaluate the importance of biogeographic studies in understanding environmental interactions, biodiversity conservation, and sustainable environmental management.
Module 1(Credit 1): Introduction to Biogeography	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain and analyze the concept, definition, nature, scope, historical development, and branches of biogeography.
	2. Apply and evaluate the principles of biogeography to understand the importance of biogeographic studies in biodiversity conservation and environmental management.
Content Outline	1.1 Biogeography-Concept, definition, nature and scope 1.2 Historical development and branches of Biogeography 1.3 Importance of Biogeographic studies
Module 2(Credit 1): Ecosystem and Biosphere	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain and analyze the concepts, types, and components of ecosystems, the meaning and components of the biosphere, and the major biogeographic processes.
	2. Apply and evaluate knowledge of ecosystems, the biosphere, and biogeographic processes to understand environmental interactions and their impact on life on Earth.
Content Outline	2.1 Ecosystem: Concept, types and Components 2.2 Biosphere: Concept, meaning and components 2.3 Biogeographic processes

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Two out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminars / Presentations
Individual or group presentation on themes like Importance of Biogeographic Studies, Ecosystem–Biosphere Relationship, or Human impact on Biogeographic Processes.

2. Diagram and Map Work Activity:
Drawing and labeling ecosystem components, biosphere components, or schematic diagrams explaining biogeographic processes; basic world biogeographic regions on maps.

3. Projects / Reports
1. Study of Major Ecosystem Types (Forest, Grassland, Desert, Aquatic) and their components.
2. Biogeographic Regions of the World and their characteristic flora and fauna.
3. Biogeographic Processes (dispersal, migration, adaptation, extinction) and their role in biodiversity.
4. Role of Biogeography in Biodiversity Conservation with reference to protected areas

4. Home Assignments
Students prepare a written assignment on topics such as Types of Ecosystems, Major Biogeographic Processes, or Role of Biogeography in Biodiversity Conservation.

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Semester V
5.1 Major (Core)

Course Title	**Agricultural Geography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Enlighten the key concepts, scope, and growth of Agricultural Geography and outline the major soil types of India.
	2. Analyze the determinants of agriculture and differentiate between various agricultural practices.
	3. Evaluate the global distribution and changing patterns of major crops and assess the significance of irrigation and major irrigation projects in India.
	4. Critically assess key agricultural policies and technological revolutions in India and apply sustainable agricultural practices.
Module 1(Credit 1): Introduction of Agricultural Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the concept, nature, scope, and development of Agricultural Geography
	2. Describe soil formation, composition, characteristics, and major soil types in India.
Content Outline	1.1 Definition of Agricultural Geography 1.2 Nature & Scope of Agricultural Geography 1.3 Development of Agricultural Geography 1.4 Approaches to study Agricultural Geography 1.5 Concept of Agricultural regionalization
Module 2(Credit 1): Agricultural Occupation	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze the physical and socio-economic factors influencing agriculture.
	2. Learners will be able to differentiate between major types of agricultural practices across regions.
Content Outline	2.1 Physical and Socio-Economic Determinants 2.2 Types of Agriculture 2.2.1 Shifting cultivation 2.2.2 Subsistence Agriculture 2.2.3 Intensive Agriculture 2.2.4 Commercial grain farming 2.2.5 Plantation Agriculture 2.2.6 Dairy farming
Module 3(Credit 1): Important Crops	
Learning Outcomes	After learning the module, learners will be able to
	1. Evaluate the world distribution and production patterns of major food and cash crops.
	2. Assess the importance, types, and major projects of irrigation in India.

Content Outline	World Distribution and Production & Changing Pattern of following Crops 3.1 Food Crops: Rice 3.2 Food Crops: Wheat 3.3 Cash Crops: Cotton 3.4 Cash Crops: Sugarcane & Tea 3.5 Irrigation: i) It's Importance and classification 3.6 Irrigation: ii) Major Irrigation projects in India
Module 4(Credit 1): Important Policies in Indian Agricultural and Milestones	
Learning Outcomes	After learning the module, learners will be able to
	1. Summarize key agricultural policies and major revolutions in Indian agriculture.
	2. Apply knowledge of technological and sustainable practices to promote eco-friendly agriculture.
Content Outline	4.1 Important Policies in Indian Agriculture 4.2 a) Green revolution 4.3 b) White revolution 4.4 c) Yellow revolution 4.5 d) Blue revolution 4.6 e) Tissue culture 4.7 f) Sustainable and Eco-friendly practices in agriculture

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminars / Presentations
- Present the concept, nature, and scope of Agricultural Geography.
- Present soil types of India and their agricultural suitability.
- Compare different agricultural practices through a presentation.
- Present global distribution and production patterns of major food and cash crops.

2. Group Discussions
- Discuss the role of physical and socio-economic factors influencing agriculture.
- Debate the relevance and challenges of shifting and subsistence agriculture.
- Discuss the impact and necessity of major irrigation projects in India.
- Debate the effectiveness of sustainable and eco-friendly agricultural practices.

3. Projects
- Conduct a soil analysis project using samples from nearby areas.
- Prepare a field-based report on regional agricultural practices.
- Create crop distribution maps for rice, wheat, cotton, sugarcane, and tea.
- Prepare a case study on a major irrigation project in India.

4. Home Assignments
- Write short notes on Agricultural Geography, soil formation, and soil types.
- Prepare a comparative table of major agricultural practices.
- Write an essay on changing patterns of global crop production.
- Review and summarize major agricultural policies and revolutions in India.

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Semester V
5.2 Major (Core)

Course Title	**Practical of Cartography and Weather data Analysis**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the fundamental concepts of cartography and basic of Projections, as well as identify different types of maps and data sources.
	2. Apply appropriate scale construction methods and convert scales for cartographic representation.
	3. Analyze and represent quantitative climatic data using suitable graphical techniques.
	4. Interpret Indian weather maps across seasons and evaluate weather patterns using signs, symbols, and isobaric features.
Module 1(Credit 1): Introduction of Cartography	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify and explain various concepts, types of maps, and sources of geographical data.
	2. Apply basic sketching methods to process, organize, and visually present geographic information.
Content Outline	1.1 Meaning of Cartography 1.2 Importance and types of Map Projections 1.3 Concepts and Types of Maps 1.4 Data Source, Data Ordering and Processing 1.5 Introduction to Methods of Sketching
Module 2(Credit 1): Types of Scale	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the concept of scale and differentiate between various types of map scales.
	2. Construct and transform simple graphical and comparative scales for practical cartographic use.
Content Outline	2.1 Definition of scale 2.2 Transformation of Scales 2.3 Types of Scales 2.3.1 Simple Graphical scale 2.3.2 Comparative scale
Module 3(Credit 1): Representation of Quantitative Data	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret various forms of climatic data and distinguish between climographs, hythergraphs, and wind roses.
	2. Construct line graphs, bar graphs, and other climatic diagrams to effectively represent quantitative weather data.
Content Outline	Representation of Climatic Data 3.1 Climograph 3.2 Hythergraph 3.3 Simple Wind Roses 3.4 Line and Bar Graph

Module 4(Credit 1): Indian Weather Map Analysis	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify weather map signs, symbols, and isobaric patterns used in different seasons**.**
	2. Interpret seasonal weather maps to analyze and explain variations in atmospheric conditions**.**
Content Outline	4.1 Weather Map: Sign & Symbols 4.2 Isobar, Isobaric Patterns 4.3 Interpretation of Weather Map 4.3.1 Weather Map of Rainy Season 4.3.2 Weather Map of winter Season 4.3.3 Weather Map of Summer Season.

Practical Journal and Viva

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least four activities from the Suggested Activities)

Suggested Activities:

1. Conduct a quiz on basic concepts, types of maps, and cartographic terminology.
2. Ask students to sketch a simple map of the college campus using cartographic rules.
3. Provide a worksheet to compare thematic and topographical maps.
4. Assign students to evaluate two maps for accuracy, clarity, and presentation.
5. Instruct students to create a thematic map using collected data.
6. Conduct a recall test on definitions and types of map scales.
7. Assign students to convert representative fraction scales into graphical scales.
8. Give an activity to identify and correct errors in an incorrectly drawn scale.
9. Ask students to justify the suitability of different types of scales for various purposes.
10. Assign students to construct a comparative scale for a given map distance.
11. Conduct an identification exercise on climograph, hythergraph, and wind rose diagrams.
12. Ask students to plot line and bar graphs using climatic or weather-related data.
13. Provide two climographs for comparative interpretation of climatic conditions.
14. Conduct a peer review activity to evaluate the accuracy and quality of students' graphs.
15. Assign students to prepare a climograph or hythergraph using real weather data.
16. Conduct a quiz on weather map symbols and signs used by IMD.
17. Ask students to draw isobars on a blank map using provided pressure data.
18. Provide seasonal weather maps for analysis and interpretation of weather patterns.
19. Assign students to predict next-day weather conditions based on a given map.
20. Ask students to prepare a short weather bulletin using weather map interpretation.

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Semester V
5.3 IKS (Major Specific)

Course Title	**Geography of Indian Heritage (IKS)**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Explain India's physical and cultural geography as reflected in ancient texts and traditions.
	2. Analyze the relationship between geography and the development of Indian civilization and heritage.
	3. Evaluate traditional ecological knowledge (TEK), environmental ethics, and sustainable practices found in Indian Knowledge Systems.
	4. Interpret the geographical significance of heritage sites, sacred landscapes, and cultural routes.
Module 1(Credit 1): Foundations of Indian Heritage Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze key elements of India's heritage geography, including ancient civilizations and sacred landscapes.
	2. Apply geographical concepts to assess the cultural and ecological importance of heritage areas.
Content Outline	1.1 Meaning and scope of "Geography of Indian Heritage." 1.2 India as a cradle of civilization: Indus–Saraswati region, Gangetic plains, Peninsular settlements. 1.3 Sacred rivers: Ganga, Yamuna, Saraswati, Narmada, Godavari, Krishna, Kaveri – cultural geography and rituals. 1.4 Sacred mountains: Himalaya, Kailash, Vindhya, Sahyadri – spiritual symbolism and ecological significance. 1.5 Traditional mapping: *Jambudvipa* concept, ancient cartography, navigation traditions.
Module 2(Credit 1): Cultural Landscapes, Sacred Routes & Indigenous Environmental Knowledge	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain and analyze India's heritage landscapes, sacred routes, and traditional ecological knowledge.
	2. Apply geographical perspectives to evaluate the significance of UNESCO World Heritage Sites and traditional heritage systems.
Content Outline	2.1 Heritage landscapes: forts, caves, temple towns, stepwells 2.2 Sacred routes of India: Chardham, Buddhist & Jain circuits 2.3 Festivals and seasons: Nature-based cultural calendar, monsoon festivals, agricultural rituals. 2.4 Traditional ecological knowledge (TEK): Water harvesting, sacred groves (*Devrai*). 2.5 UNESCO world heritage sites of India: geographical significance and conservation issues.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Two activities from the Suggested Activities)

Suggested Activities:

Module 1 Activities:

1. Seminar on geographical references in ancient Indian texts.
2. Group discussion on sacred rivers and environmental conservation.
3. Project on preparing a traditional map model (*Jambudvipa* or ancient routes).
4. Home assignment on sacred mountains and their cultural–ecological linkages.

Module 2 Activities:

1. Seminar on indigenous water management practices across India.
2. Group discussion on sacred groves and biodiversity conservation.
3. Project on mapping pilgrimage circuits (Hindu/Buddhist/Jain/Sufi).
4. Home assignment on UNESCO heritage sites and their geographical context.

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Semester V
5.4 Minor Stream

Course Title	**Population Geography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the basic concepts, nature, scope, and sources of population data.
	2. Analyze the distribution and density patterns of population with reference to influencing factors.
	3. Compare major population theories and interpret their relevance in contemporary population studies.
	4. Examine population change and assess the role of fertility and mortality as key demographic components.
Module 1(Credit 1): Introduction To Population Geography	
Learning Outcomes	After learning the module, learners will be able to
	1. Enlighten the need and scope of population data.
	2. Identify types and sources of population data.
Content Outline	1.1 Definition, Nature & Scope 1.2 Needs of Population Data 1.3 Types of Population Data 1.4 Methods of Sources of Collection of Population Data i) Primary Data ii) Secondary Data
Module 2(Credit 1): Distribution And Density of Population	
Learning Outcomes	After learning the module, learners will be able to
	1. Discuss the factors influencing population distribution in India.
	2. Outline the general distribution pattern of the Indian population.
Content Outline	2.1 Factors Affecting The Distribution Of Indian Population 2.1.1 Physical Factors 2.1.2 Human / Social Factors 2.1.3 Economic Factors 2.2 General Distribution of Indian Population
Module 3(Credit 1): Population Theories	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain major population theories.
	2. Compare their relevance in demographic studies.
Content Outline	3.1 Malthusian Theory 3.2 The Theory of Demographic Transition 3.3 Optimum Population Theory
Module 4(Credit 1): Population Change and Components of Population Change	
Learning Outcomes	After learning the module, learners will be able to
	1. Summarize the meaning, measurement, and types of population growth**.**
	2. Examine fertility and mortality as key components influencing population change.

Content Outline	4.1 Population Change i) Meaning And Measurement of Population Change ii) Rate of Population Growth iii) Types of Population Growth 4.2 Components of Population Change i) Fertility- Meaning And Measurement of Fertility, Determinants of Fertility ii) Mortality :- Meaning And Measurement of Mortality, Determinants of Mortality

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminars / Presentations

1. Present on the need and scope of population data and its sources.
2. Present a case study on factors affecting population distribution in India.
3. Present a comparison of major population theories and their relevance today.
4. Present findings on population growth patterns and the role of fertility and mortality.

2. Group Discussions

1. Discuss the types of population data and methods of collection.
2. Discuss the impact of physical, social, and economic factors on population distribution.
3. Debate the applicability of Malthusian vs Demographic Transition Theory in modern India.
4. Discuss population change trends and determinants of fertility and mortality.

3. Projects

1. Prepare a project mapping the distribution and density of population in a selected Indian state.
2. Conduct a survey on a small population sample to study fertility or mortality patterns.
3. Prepare a report comparing population theories with real demographic data.
4. Develop a population growth chart using historical census data.

4. Home Assignments

1. Write a short note on the definition, nature, and scope of population geography.
2. List and explain factors affecting population distribution in India.
3. Summarize Malthusian, Demographic Transition, and Optimum Population theories.
4. Analyze components of population change (fertility and mortality) using secondary data.

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Semester V

5.5 Minor Stream

Course Title	**Introduction to Resource Geography**
Course Credits	**4**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the meaning, nature, scope, and significance of resource geography and the factors influencing resource utilization.
	2. Classify and analyze different types of mineral resources and evaluate their global distribution and uses.
	3. Interpret major power resources by examining their production patterns and global distribution.
	4. Justify, and recommend appropriate strategies for resource management and conservation of land, water, plants, and animals.
Module 1(Credit 1): Introduction	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the meaning, definition, nature, and scope of Resource Geography.
	2. Analyze the importance, utilization, and factors affecting the use of various resources.
Content Outline	1.1 Meaning and Definition 1.2 Nature and Scope of Resource Geography 1.3 Importance and Utilization of Resources 1.4 Factors affecting on Utilization of Resources
Module 2(Credit 1): Mineral Resources	
Learning Outcomes	After learning the module, learners will be able to
	1. Classify major types of mineral resources and describe their key characteristics and uses.
	2. Evaluate the global production and distribution patterns of important minerals such as iron, manganese, bauxite, copper, and mica.
Content Outline	2.1 Classification of Mineral Resources 2.2 Characteristics and Uses of Mineral Resources 2.3 Major Mineral Resources in the World: Production & their Distribution (Iron, Manganese, Bauxite, Copper & Mica)
Module 3(Credit 1): Power Resources	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the importance and classification of power resources.
	2. Analyze and compare global production and distribution of major power resources.
Content Outline	3.1 Importance of Power Resources 3.2 Classification of Power Resources 3.3 Major Power Resources in the World: Production & their Distribution 3.3.1 Exhaustible Energy Resources: (Coal, Mineral Oil, Natural Gas, Atomic Energy) 3.3.2 Non-Exhaustible Energy Resources: (Hydroelectricity, Solar Energy, Wind Energy, Tidal Energy & Geothermal Energy)

Module 4(Credit 1): Conservation of Resources	
Learning Outcomes	1. Analyze strategies and policies for natural resource management and planning.
	2. Apply conservation methods and propose sustainable solutions for land, water, plant, and animal resources
Content Outline	4.1 Management and Planning of Resources 4.2 Land Conservation 4.3 Water Conservation 4.4 Plant and Animal Conservation

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Three out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminar/Presentation Activities

- Present the *meaning, nature, and scope* of Resource Geography with real-life examples showing its significance.
- Prepare a PPT comparing the *global distribution patterns of major minerals* such as iron, bauxite, and copper, explaining spatial variations.
- Give a presentation evaluating *exhaustible vs. non-exhaustible power resources* and their environmental implications.
- Present a detailed case study on *effective land or water conservation initiatives* and justify their outcomes.

2. **Group Discussion Activities**

- Discuss: *"Is resource availability or technology more important in resource utilization?"* Provide logical justification.
- Debate on *"Uneven global distribution of mineral resources and factors responsible for it."*
- Discuss the global shift from fossil fuels to renewable energy and evaluate its practicality for developing countries.
- Discuss: *"Community involvement is key to successful resource conservation."* Provide arguments and examples.

3**. Project Activities**

- Conduct a locality-based study examining *patterns of resource utilization* (e.g., land use, water use).
- Prepare thematic maps or infographics showing *global distribution of major minerals* and analyze leading producer regions.
- Carry out a mini-project comparing *energy production patterns* of India with other major countries; interpret trends and gaps.
- Develop a *sustainable resource management action plan* for your college or community (land, water, vegetation, waste, etc.).

4. **Home Assignments**

- Write a detailed note on *factors influencing resource utilization* with appropriate examples.
- Prepare an assignment describing *characteristics and uses* of major minerals such as iron, manganese, bauxite, copper, and mica.

- Create a comparison table of *major power resources*, including their types, leading producing countries, and advantages.
- Write a reflective assignment on *practical water conservation measures* that can be adopted in day-to-day life.

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Semester V
5.6 VSC- IV

Course Title	**Fundamentals of GIS**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the fundamental concepts, components, and tasks of GIS.
	2. Differentiate and apply various spatial and non-spatial data models in GIS.
	3. Analyse geographical information using GIS tools for interpreting patterns and relationships.
	4. Evaluate and propose suitable GIS applications in agriculture, urban planning, resource management, and disaster management.
Module 1(Credit 1): Introduction to GIS and GIS Data	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the definition, history, components, and tasks of GIS and explain the basic concepts of GIS data.
	2. Classify and differentiate spatial and non-spatial data, and apply knowledge of raster, vector, and database models in GIS.
Content Outline	1.1 Definition of GIS 1.2 History and Evolution of GIS 1.3 Components of GIS 1.4 GIS Tasks 1.5 GIS Data Concepts 1.6.1 Spatial & Non-spatial Data 1.6.2 Spatial Data Models: Raster and Vector 1.6.3 Non-spatial Data Models: Hierarchical, Relational, Object-oriented
Module 2(Credit 1): GIS Applications and Implementation	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply GIS techniques to analyze spatial problems in agriculture, urban planning, resource management, and disaster management**.**
	2. Evaluate real-world case studies and propose suitable GIS-based solutions for effective planning and management.
Content Outline	2.6 GIS in Agriculture 2.7 GIS in Urban Planning 2.8 GIS in Resource Management 2.9 GIS in Disaster Management 2.10 Practical Relevance and Case Studies

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Two out of four types of activities from the Suggested Activities)

Suggested Activities:

1. **Seminars / Presentations**

Students will deliver a short seminar on any one topic from the following:

1. Components of GIS and their real-world relevance
2. Comparison of Raster and Vector Data Models
3. Role of GIS in Urban Planning or Agriculture
4. GIS-based Disaster Management Approaches

2. Group Discussions:

1. Importance of spatial vs. non-spatial data in modern GIS
2. How GIS has transformed resource management
3. Case studies showcasing successful use of GIS in various sectors (agriculture, urban planning, and disaster management)

3. Projects / Reports:

1. Mapping land-use change using raster or vector data (conceptual project)
2. A comparative study of GIS applications in two sectors (e.g., agriculture vs. resource management)
3. Creating a conceptual GIS database model for a small study area
4. Report on a real case study (Chandrapur floods, Pune traffic, drought analysis, etc.) highlighting GIS usage

4. **Home Assignments:**

1. Definitions: GIS, spatial data, non-spatial data, raster, vector
2. Short notes on history, components, and tasks of GIS
3. Write the benefits of GIS in agriculture / urban planning / disaster management
4. Identify and explain any one GIS case study from India

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Semester V
5.7 Major Core

Course Title	**Geography of Tourism Management**
Course Credits	**2**
Course Outcomes	After going through the course, learners will be able to
	1. Explain the types of accommodation and their role in tourism development.
	2. Analyze the factors influencing the choice of accommodation by tourists.
	3. Discuss the role of national and international tourism organizations, such as WTO, ITDC, and MTDC, in tourism planning and development.
	4. Evaluate the contribution of travel agencies in promoting sustainable tourism practices.
Module 1(Credit 1): Role of Accommodation in Tourism and Tourism Development	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the types of accommodation (government and private) and their features.
	2. Analyze the factors affecting tourists' choice of accommodation and its role in tourism development.
Content Outline	1.1 Types of Accommodation: Government, Private 1.2 Factors affecting the choice of accommodation 1.3 Role of accommodation in tourism development
Module 2(Credit 1): Planning and Polices for Tourism Development	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the functions and roles of WTO, ITDC, and MTDC in tourism development.
	2. Evaluate the contribution of travel agencies in promoting sustainable tourism practices.
Content Outline	2.1 World Tourism Organization (WTO) 2.2 Tourism Development Corporation (ITDC) 2.3 Maharashtra Tourism Development Corporation (MTDC) 2.4 Role of Travel Agencies in Sustainable Tourism

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Evaluation – (Comprehensive Continuous Evaluation (CCE) should cover at least Two out of four types of activities from the Suggested Activities)

Suggested Activities:

1. Seminars / Presentations

- Seminar on "Government vs Private Accommodation in Tourism."
- Presentation on "Factors Influencing Tourist Choices in Accommodation."
- Seminar on "Role of WTO, ITDC, and MTDC in Tourism Development."
- Presentation on "Travel Agencies and Sustainable Tourism Practices."

2. Group Discussions

- GD on "Importance of Accommodation in Promoting Tourism."

- GD on “Tourist Preferences and Accommodation Selection Factors.”
- GD on “National and International Tourism Organizations: Roles and Functions.”
- GD on “Strategies of Travel Agencies for Sustainable Tourism.”

3. Projects / Reports

- Project on assessing accommodation facilities in a selected tourist destination.
- Report analyzing factors affecting tourist accommodation choice in a city or region.
- Case study on the implementation and impact of ITDC/MTDC tourism projects.
- Project evaluating travel agency initiatives in promoting eco-friendly and sustainable tourism.

4. Home Assignments

- Short notes on types of accommodation and their features.
- Explain the role of accommodation in tourism development.
- Describe the functions of WTO, ITDC, and MTDC in tourism planning.
- Write a brief report on the role of travel agencies in sustainable tourism practices.

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Semester VI
6.1 Apprenticeship

Semester-VI
6.6 Community Engagement

Field Excursion- Visits to tourist places/ village/ Natural features/ weather observatory

Course Title	**Community Engagement** **Field Excursion- Visits to tourist places/ village/ Natural features/ weather observatory**
Course Credits	**2**
Course Outcomes	1. Apply geographical knowledge to solve community-based problems.
	2. Develop practical skills in mapping, GIS, and data analysis.
	3. Promote sustainable practices for community development.
	4. Strengthen communication, teamwork, and leadership abilities.
Activities	Participation in community activities in nearby areas Environment Awareness Programes/Cleanliness Drives/ Disaster Preparedness and Mitigation Programme/ Participatory mapping and land use survey/ Water resources management Initiatives/ Cultural and Heritage mapping

Report, Presentation and Viva

Suggested Activities:(Depend on surrounding geographical, socio-economic situation)

1. **Environmental Awareness and Action**

Campaign Activities:
- Conduct workshops on waste segregation, composting, and recycling.
- Organize tree plantation drives in collaboration with local authorities.
- Survey the locality's air and water quality and present findings to the community.

2. **Disaster Preparedness and Mitigation**

Program Activities:
- Map local disaster-prone areas (e.g., flood zones) using GIS.
- Train residents on disaster response, first aid, and evacuation techniques.
- Collaborate with the district disaster management cell to organize drills.

3. **Participatory Mapping and Land**

Use Survey Activities:
- Work with the community to map existing land use patterns.
- Identify and suggest solutions for issues like encroachments, improper land use, or resource wastage.
- Provide GIS-based visualizations of future development proposals.

4. **Water Resource Management**

Initiative Activities:
- Analyze the local watershed and groundwater availability.
- Educate residents on rainwater harvesting techniques.
- Create a model for equitable water distribution in collaboration with local government.

5. **Tourism Development**

Program Activities:

- Identify and map potential tourist spots in the area.
- Create eco-tourism guides and train community members as tour guides.
- Suggest strategies to improve local tourism while conserving natural resources.

6. **Urban Planning and Smart City**

Engagement Activities:

- Conduct traffic studies and suggest solutions for congestion.
- Work on waste management projects to make neighbourhoods cleaner.
- Organize public discussions on urban issues such as housing, zoning, and amenities.

7. **Cultural and Heritage**

Mapping Activities:

- Conduct interviews with community elders to collect oral histories.
- Map heritage sites and prepare educational materials.
- Organize heritage walks or awareness drives to engage the younger generation.

8. **Agriculture and Rural Development Program Activities**:

- Conduct soil testing and recommend suitable crops.
- Organize workshops on modern agricultural techniques and organic farming.
- Assist in creating GIS-based maps for irrigation planning.

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