

TARAKESWAR DEGREE COLLEGE

DEPARTMENT OF GEOGRAPHY

The Department of Geography, Tarakeswar Degree College provides opportunities to students to study Three years of Degree Courses in Geography Honours and General as per the Geography Honours and General syllabus of The University of Burdwan. This department provides Fourteen core courses, Four Discipline Specific Electives (DSE papers), and Two Skill Enhancement Courses (SEC) during the whole course i.e., from semester I to semester VI. Along with this four General Elective subjects are also provided.

For the Three years, General Degree Course the Department of Geography offers four core courses, two Discipline Elective Courses (DSE), and four Skill Enhancement Courses (SEC) for semesters I to VI.

During this course, students learn about various branches of Geography like Physical Geography, Geomorphology, Geotectonic, Bio Geography, Soil Geography, Population Geography, Environmental Geography, Social Geography, Cultural Geography, Settlement Geography, Urban Geography, Disaster Management, Economic Geography, Geographical Thought, Cartography, Human Geography, Research methodology, etc. Along with this students also learn computer-based courses with the help of free GIS software that is Quantum Geographical Information System (QGIS).

PROGRAM OUTCOMES POs:

B.Sc. (Hons/General) Graduates will be able to:

Program Outcome 01

Knowledge about Earth and its Features: The graduate of geography are enriched with knowledge of the earth's features and its landforms. They have knowledge about the origin and changes of in different earth features and the reason for their location and changes.

Program Outcome 02

Analysis of Maps and Graphs:

A graduate in Geography is able to analyse maps and graphs which is helpful in identifying spatial locations of different types of resources.

Program outcome 03

Idea about Human society, population, Migration, Race, Caste, Religion etc.

Students learn about evolution of human society, geographical distribution of population, evolution of races, caste, religion, movement of population etc. It helps to understand them the society.

Programme Outcome 04:

Theoretical and Practical knowledge of map making

Theoretical knowledge of cartograms and Thematic Maps and their practical application in solving the real problems.

Program outcome 05

Knowledge about Weather, climate and its related phenomena

It helps to understand the atmospheric phenomena, its occurrence and effects over the places and time. It is helpful in management of various kinds of climate induced disasters.

Program outcome 06

Knowledge of data analysis

The knowledge of statistics enable students to analyse and interpret various types of data which makes them eligible for jobs in this field.

Program outcome 07

Broadening the idea of country (India)

It gives a broader idea about the physical, social, cultural and economic set up of India.

Program outcome 08

A broad concept and idea of Region and Planning

It gives idea of region, its evolution, regional planning. Regional development, inequality and planning

Program outcome 09

Concept of Economic activities and its geographical distribution

A student learns about the concept of economic activities and its classification. It also helps to understand the causes and distribution of various types of economic activities at different places over the surface of the earth.

Program outcome 10

Environment and sustainability:

A graduate in geography has better knowledge of the environment and environmental issues. Sustainable use of resources etc.

Program outcome 11

Idea of Research and methodology

Under the syllabus, students go through research methodologies where they learn how to do research. They learn about objectives, methodology, collection of data, fieldwork, surveys, and other information related to research which help them during their higher studies.

Program outcome 12

Knowledge and application of Remote Sensing and application of GIS

Students of Geography learn about process of data acquisition through remote sensing (Satellites and Airborne platforms). Application of open source software (QGIS software) in the development of thematic maps and diagrams.

Program outcome 13

History of evolution of the discipline of Geography

It provides knowledge of chronological development of geography, its nature and inclusion of new thoughts.

Program outcome 14

Knowledge of Disaster Management

Knowledge of disaster and its management is an important issue. Geographers learn how to manage various types of disasters. Therefore, it is helpful for the society.

Program outcome 15

Knowledge and application of computer

Students learn basics and application of computers which help them to secure job in this digital era. It also helps to fulfil the aim of Digital India.

Program outcome 16

Field Work

During the field visits, preparation of project reports, and different departmental programs students that how to work in a team which is helpful for them in their job in the future.

Program outcome 16

Knowledge of settlement, urban development and culture

A graduate in geography has knowledge settlements their forms, society and culture. Geography describe the spatial characteristics of culture and society.

Program outcome 16

Knowledge of Demography:

A geographer is well aware of Demography and its various parameters. Thus, a geographer has a better understanding of the population and its different parameters.

Program outcome 17

Knowledge of Resources and its availability

Provides knowledge about the availability and utilisation of resources, its preservation and sustainability.

Program outcome 18

Knowledge of soil and biotic world

Knowledge of soil and its geographical distribution and characteristics helps to understand distribution of plants and animal world.

Program outcome 19

Types, characteristics and distribution of Agricultural practices

It elaborate knowledge about various types of agricultural practices and their characteristics.

Program outcome 20

Ethics

A student of geography learns many things about society, culture, and environment and develops ethical values.

Program-Specific Objectives (PSOs)

1. To study the features of the earth along with processes of their origin, development, and transformation.
2. To analyse the spatial pattern of events may be physical, social, cultural, political, historical, biological, etc.
3. To aware students of computer-based technology and the use of software for geographical studies and to find solutions to environmental and social problems with the help of its application.
4. To teach them about conducting research work along with ethical values and application for the benefit of mankind.
5. An interdisciplinary approach to apply knowledge in solving major issues with the help of other disciplines.

Course Outcomes of UG Honours Course:

Course code	Course Title	Course Outcomes
CC-1	GEOTECTONICS AND GEOMORPHOLOGY	<ol style="list-style-type: none">1) Students will gain knowledge of plate distribution around the globe as well as an understanding of the impact of plate tectonics.2) Students will gain in-depth knowledge about the physical characteristics of the earth. They learn about various aspects of the earth and also obtain information about the creation, as well as the evolution and destruction of various landforms on the earth.
CC2 (Th+P)		<ol style="list-style-type: none">1) Students learn a theoretical understanding of map-making.2) Understand the concept and utility of projection, topographical maps, geological maps, etc..

	CARTOGRAPHIC TECHNIQUES AND GEOLOGICAL MAP STUDY	<ol style="list-style-type: none"> 1) Students will gain knowledge about the shape of the earth as well as the measurement of latitude and longitude. 2) Understand different types of scales, their differences, and their applications. 3) Students learn to identify rocks and minerals and are also able to interpret geological maps and toposheets, etc.
CC3	HUMAN GEOGRAPHY	<ol style="list-style-type: none"> 1) Students learn about the human aspects of geography and also understand the relationship between humans and the environment. 2) Understand the approaches and processes of human geography as well as the diverse patterns of habitat and adaptations. 3) Build an idea about population growth and distribution.
CC4 (Th+Pr)	CARTOGRAMS, SURVEYS, AND THEMATIC MAPPING	<ol style="list-style-type: none"> 1) Students get theoretical knowledge about the concept of cartograms, and thematic maps and also understand clearly the basic theoretical concept of surveying and survey equipment.
		<ol style="list-style-type: none"> 1) Students gain an understanding of the direct interaction of various types of surveying instruments, like a dumpy level and a theodolite, etc., with the environment. 2) Students develop an understanding of the basic concepts of cartographic and thematic map techniques.
CC5	CLIMATOLOGY	<ol style="list-style-type: none"> 1) Students get knowledge about condensation and precipitation processes. 2) Understood the importance of the layers, Isolation, Pressure, wind, etc. of the atmosphere. 3) Develop an idea of how cyclones function and their impact. 4) Focus on the Greenhouse effect and the importance of the ozone layer importance in our environment.
CC6 (Th+Pr)		<ol style="list-style-type: none"> 1) Students get help through theoretical Statistical knowledge that helps them to understand the concepts of data, sampling, and distribution. It also guides them to

	STATISTICAL METHODS IN GEOGRAPHY	<p>use the proper methods to collect the data, employ the correct analyses, and effectively present the results.</p> <ol style="list-style-type: none"> 1) Students develop knowledge of data collection, tabulation, presentation of data, and use of various statistical methods. 2) Students get the idea of statistical application. 3) Recognize the importance and application of statistics in Geography
CC7	GEOGRAPHY OF INDIA	<ol style="list-style-type: none"> 1) Students gain a thorough understanding of India's and West Bengal's geography. 2) Drawn attention to the green revolution and its consequences 3) Help to understand the regional development of Darjeeling and Sunderban. 4) Students have knowledge about the distribution of industry in India since Independence.
SEC 1	COMPUTER BASICS AND COMPUTER APPLICATIONS	<ol style="list-style-type: none"> 1) Students develop knowledge about data computation, storage, and formatting in spreadsheets. 2) Students learned about statistical parameters like mean, median, mode, etc. using Excel on a computer.. 3) The student gains an understanding of number systems and binary arithmetic.
CC8	REGIONAL PLANNING AND DEVELOPMENT	<ol style="list-style-type: none"> 1) Learn about the definition of a region, its evolution, and the various types of regional planning. 2) Studying a variety of models helps to comprehend global and Indian regional development. 3) Gain knowledge about measuring inequality 4) Get introduced to NITI Aayog and its functions.
CC9	ECONOMIC GEOGRAPHY	<ol style="list-style-type: none"> 1) Focuses on the concept and classification of Economic Activities.

		<ol style="list-style-type: none"> 2) Through various theories, students get an idea of how to analyze the factors affecting the location of agriculture and industries. 3) Familiar with International Trade Blocs 4) Give an idea about the agricultural systems of tea plantations in India and mixed farming in Europe.
CC10 (Th+Pr)	ENVIRONMENTAL GEOGRAPHY	<ol style="list-style-type: none"> 1) Learn about the Geographers' Approach to Environmental Studies. 2) Build an idea about environmental degradation, pollution, and other environmental issues. 3) Focuses on national and global environmental programs and policies on forests and wetlands.
		<ol style="list-style-type: none"> 1) Learn the significance and Interpretation of air quality using CPCB / WBPCB data. 2) Students learn about the preparation of a questionnaire for a perception survey on environmental problems. 3) Learn to construct a Leopold matrix to assess environmental impact.
SEC 2	ADVANCED SPATIAL STATISTICAL TECHNIQUES	<ol style="list-style-type: none"> 1) Students get an idea about the concepts of probability and normal distribution and their geographical applications. 2) Students learn about statistical methods such as correlation, regression, and hypothesis testing. 3) Build up knowledge of spatial and non-spatial data.
CC11 (Th+Pr)	RESEARCH METHODOLOGY FIELD WORK	<ol style="list-style-type: none"> 1) Students understand the idea of research problem objectives and hypothesis, 2) Application of literature review in research work. 3) Know about different types of field techniques and tools. 4) Develop ideas on the Collection of samples. Preparation of inventory from field data. Post-field tasks.

		<ol style="list-style-type: none"> 1) Practical knowledge about the creation of a questionnaire, the collection of primary data, and the preparation of a field report on a specific research problem
CC12	REMOTE SENSING AND GIS	<ol style="list-style-type: none"> 1) Students learn about the different types of Remote sensing satellites with examples. 2) Develop ideas on Concepts and Principles of Remote Sensing 3) Students can develop an understanding of the value of using true and false color in remote sensing.
		<ol style="list-style-type: none"> 1) Gain knowledge about image processing, classification, georeferencing, editing, drawing a thematic map, and output, overlays.
DSE 1	CULTURAL SETTLEMENT AND GEOGRAPHY	<ol style="list-style-type: none"> 1) Students have got a basic concept of cultural geography. 2) Learners can gain knowledge of the morphology of rural settlements and urban-settlement. 3) Critically analyze how policy impacts the population process.
DSE2	POPULATION GEOGRAPHY	<ol style="list-style-type: none"> 1) Students have an idea about different concepts related to population and population characteristics. 2) Students learn concepts like the growth of population, population density, fertility rate, mortality rate, migration, population explosion, birth control, population policy, etc. 3) Students have got knowledge about the relevance of the Marxian concept of population growth in the present day.
CC13	EVOLUTION OF GEOGRAPHICAL THOUGHT	<ol style="list-style-type: none"> 1. This module is based on the history of the development of geographical thought from the past to the present. 2. This is helpful in understanding the development of geographical ideas in the different parts of the world.

		<ol style="list-style-type: none"> 3. This is useful for the students to get an idea about the great philosophers and geographers who contributed to the development of geographical thought.
CC14	DISASTER MANAGEMENT	<ol style="list-style-type: none"> 1. This is helpful in enhancing the knowledge of students about the environment, its protection, and management. 2. Students not only learn about the causes and impacts of disasters and hazards but also learn how to manage them. 3. This is also helpful in serving the locality as well as the nation when needed. 4. Students can aware of the impact and management of a disaster .
DSE 4	SOIL AND BIOGEOGRAPHY	<ol style="list-style-type: none"> 1. This is helpful in understanding the process of soil formation, and the properties, types, and characteristics of the soil. 2. This provides knowledge about the causes of soil erosion and its management. 3. This is also helpful in gaining knowledge about different types of crops grown in different soil. 4. The Biogeography part of this paper helps students to understand the different aspects of the living and non-living world and their interrelationships. 5. This is helpful in providing knowledge about the energy and biogeochemical cycles, ecosystem, food chain, food web, biomes, and biodiversity.

Course Outcomes of UG General Course:

Course	Course	Learning Outcomes
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code	Title	
CC1A	GEOMORPHOLOGY AND CARTOGRAPHY	1) Students get an idea about the evolution of landforms. 2) This paper also describes the various types of landforms
		1) They learn about drawing linear and comparative scales. 2) Along with the drawing of linear and comparative scales, students also learn about thematic maps to represent socio-economic and climatic data.
CCIB	PHYSICAL ENVIRONMENT AND SURVEYING	1. In the physical environment part, students learn about climate, soil, and bio-geography. 2. A topic like the distribution of temperature, climatic classification, cyclones, and precipitation of rainfall really enhances the knowledge of students in this field. 3. Under the sub-topic soil, properties and formation of soil are really useful for students. 4. In Bio-geography students learn about ecosystems and biomes which is really helpful in the enhancement of their knowledge in the field of environment.
		1. In practical students learn about the technique of using different surveying instruments like a Prismatic compass, Dumpy Level, Plane table, etc.
CC-IC	HUMAN GEOGRAPHY AND MAP STUDY	1) Students have got the details knowledge about the different types of space cultural regions and their importance in the geographical study. 2) Understand the difference between rural and urban settlements and the types and patterns of rural settlements
		1) Students got knowledge about how the weather map may be interpreted
SEC1	COMPUTER BASICS AND COMPUTER APPLICATIONS	1) .Students get the opportunity to learn the basics of computers.

		2) Along with the basics, students learn the application of computers to develop different types of thematic maps and analysis of statistical diagrams.
CC ID	ENVIRONMENTAL GEOGRAPHY	<ol style="list-style-type: none"> 1. Students get knowledge about the different aspects of the environment. 2. Students get awareness about the protection of the environment along with different programs to conserve our environment and bio-reserve. 3. This is helpful in enriching the knowledge of students about policies adopted by the Government of India regarding the environment along with environmental movements in India.
SEC 2	REGIONAL PLANNING AND DEVELOPMENT	<ol style="list-style-type: none"> 1. Students get knowledge about the concept of region and regional planning. 2. One of the key indicators of the development of HDI and its calculation, students learn at this stage. 3. The development of agriculture and industry since 1970 is an important topic that enriches the knowledge of students about the historical perspective of the development of our country. 4. Students are taught to prepare questionnaires to assess the important issues of the environment such as pollution, solid waste management, sanitation, and health.
		1. Students learn how to prepare a project on the computer with the help of software e.g. QGIS.
DSE1A	GEOGRAPHY OF INDIA	<ol style="list-style-type: none"> 1) Students get knowledge about the landforms drainage and climate of India. 2) .Analyse the relationship between climate, availability of water resources irrigation, and agricultural food production. 3) Students learn how to prepare a field /project report on the basis of primary data by visiting the field along with using secondary data from different sources.

SEC3	COLLECTION MAPPING AND INTERPRETATION OF CLIMATIC DATA	<ol style="list-style-type: none"> 1) Student learn how to draw different types of climatic maps along with their importance. 2) The important part is the interpretation of the Daily Weather Map of the Indian sub-continent that enhances the knowledge of students about a prediction of weather.
DSE IB	DISASTER MANAGEMENT	<ol style="list-style-type: none"> 1. Students learn the difference between hazard and disaster along with their classification. 2. Theoretically, students get knowledge about the management of different disasters e.g., earthquake, landslide, flood, cyclones, etc. 3. Students also learn how to prepare disaster maps on the basis of secondary data.
SEC-4	ROCKS AND MINERALS AND THEIR MEGASCOPIC IDENTIFICATION	<ol style="list-style-type: none"> 1. Students learn about the role of rocks and minerals in the compositiearth's earth crust. 2. Students learn how to identify rocks and minerals on the basis of their physical and chemical characteristics.