



## **ONDA THANA MAHAVIDYALAYA**

**Onda, Bankura, West Bengal - 722144**

### **DEPARTMENT OF GEOGRAPHY**

Geography is the subject which helps us to explore and understand space and place - recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them. Geography is sometimes considered as the mother of all sciences due to its links and influences on a range of other scientific fields including Biology, Mathematics, Anthropology, Geology, Astronomy and Chemistry. After the introduction of the CBCS system at Onda Thana Mahavidyalaya in 2018, new frameworks of teaching-learning have been introduced. As a result, by pursuing the programme, students can build practical idea on various fields including Remote Sensing and GIS, which they can further use in various research endeavours.

### **Program Outcome (PO) (Hons.)**

Geography is the study of distribution of elements over space as well as the mutual and reciprocal relationship between man and environment. It also studies different activities of man in different milieu of life in changing the face of the earth, how 'space' turns into 'place' with different values added to it by man's varied modes of life with due emphasis on major empirical questions of 'what', 'why', 'how' and 'where'.

Therefore, the study of this discipline at undergraduate level would have the following Learning outcomes in general:

- i.** It helps to develop a holistic understanding of the earth as the home of man.
- ii.** Student can understand what Geography really is. They shall come to know that geography isn't merely a 'science of place names', rather it is true science of distribution with expertise in various modern skills and techniques.
- iii.** Students will be able to find their place in job market both in academic as well as corporate sector.
- iv.** Students also can explore the engineering aspects of the discipline particularly Geoinformatics, Geoinformation Science, Geomatics, Engineering etc.
- v.** At the end of the course, students will be capable of segmenting the whole discipline in three different components- physical, human and applied.

### **Program Specific Outcome (Hons.)**

Geography is widely accepted as the most emerging science in recent years due to its versatile character to include contents of both science and humanities. Therefore, students from both the streams can choose the subject at their undergraduate level. Bankura University offers B.Sc., degree in Geography keeping in view the demand of the students as well as towards making it more

suitable for higher education where stiff competition is prevailed from other science students. Since its inception, the university follows CBCS curriculum based on UGC guidelines with slight modification in view of the local aspects. Geography basically deals with space. The spatial aspects of the earth, their guiding laws and theories, nature and evolution are recorded and represented through a number of instrumental and mechanical ways. A holistic view of the Earth as an entity and the features within the earth are taught to students. The evolution of natural landscape to cultural landscape is illustrated. The mapping techniques are guides to represent all the physical, social, cultural features through proper scaling and elaborative description. The project based studies and analysis are very helpful in building up a research outlook among the students. They learn about the sample drawing procedures and detailed idea about the important issues around them. The course is intersected into several small sections and put under expert faculties of that field to provide the students the desired benefit of the course.

<b>COURSE OUTCOME (CO) (Hons.)</b>		
<b>SEMESTER I</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/101/C-1T</b>	<b>Geotectonics and Geomorphology</b>	<p>1. Students can understand what the Earth's interior and exterior were like at the time of Earth's creation.</p> <p>2. The creation of the Earth and its changes over time can be known through various theories such as the Big Bang Theory, Nebula Hypothesis, Gaseous hypothesis etc.</p> <p>3. They can learn about the different types of landforms caused by the internal and external forces of the Earth.</p>
<b>SHGEO/102/C-2P</b>	<b>Cartographic Techniques</b>	<p>1. Learn about different types of Scales, their drawing methods and uses.</p> <p>2. Latitude and longitude of the whole world are determined by different map projections. And knowledge about which projection is suitable for a particular</p>

		<p>region can be gained.</p> <p>3. There are different types of surveys such as Prismatic Compass survey, Dumphy Level Survey, and Theodolite survey. Through these, we can get an idea of how to determine the height of an object, the total area of the place, the distance etc.</p>
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<b>SEMESTER II</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/201/C-3T</b>	<b>Human Geography</b>	<p>1. A clear idea can be gained about the emergence of man and the changes that have taken place in the physical structure of man in different ages.</p> <p>2. There are descriptions of different types of races and ethnicities. A precise knowledge can be gained about the location of different types of races and</p>

		<p>their different characteristics throughout the world.</p> <p>3. A clear idea of the trends and changes in the population of India and the entire world from ancient times to the present can be obtained.</p> <p>4. Students understand how humans are destroying the natural environment in their pursuit of development and how they are in conflict with the natural environment over time.</p>
<p><b>SHGEO/ 202/C-4P</b></p>	<p><b>Cartograms and Thematic Mapping</b></p>	<p>1. Students gain knowledge about various types of geographic data and how to represent them graphically.</p> <p>2. Learn about different types of maps and their uses.</p> <p>3. Through topographical maps, students develop knowledge about how different Social features relate to Natural landforms.</p>

<b>SEMESTER III</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/ 301/C-5T</b>	<b>Climatology</b>	<p>1. Students are able to gain a clear knowledge about the composition of the Atmosphere, the various components and the various phenomena that occur in the Atmosphere.</p> <p>2. A clear understanding of the various types of atmospheric disturbances, their distribution and their impact on the Earth's surface can be gained.</p> <p>3. Students gain a fair understanding of the climatic classification of the entire world.</p> <p>4. Students able to get a definite idea about the formation and movement of Monsoon Wind.</p>
<b>SHGEO/ 302/C-6T</b>	<b>Geography of India</b>	<p>1. Students can get a clear understanding of India's physiographic divisions, drainage patterns, soils, vegetation etc.</p> <p>2. Knowledge can be gained about the distribution of different types of mineral resources and utilization of non-renewable resources.</p>

		<p>3. Students gain knowledge about India's agriculture, industry, automobile industry and information technology.</p> <p>4. Students can learn about the topography of West Bengal, agriculture, distribution of mineral resources and various problems related to agriculture.</p>
<b>SHGEO/ 303/C-7P</b>	<b>Statistical Methods in Geography</b>	<p>1. Students gain basic understanding of various types of statistical data and Tabulation.</p> <p>2. Students can learn about different methods of data collection and sampling techniques.</p> <p>3. Students are able to analyze and interpret geographic data using various type of statistical techniques.</p> <p>4. Students learn to use various types of statistical techniques to test the hypothesis that is developed in research.</p>
<b>SHGEO/305/SEC-1P</b>	<b>Computer Basics and Applications</b>	<p>1. Students gain a basic understanding of what a computer is and the various types of input, output devices, and software-hardware of a computer.</p> <p>2. Students learn how to analyze and represent various</p>



		types of geographic data using Excel.
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<b>SEMESTER IV</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/401/C-8T</b>	<b>Regional planning &amp; Development</b>	<p>1. Students gain knowledge about many types of Region and various methods of regional Delineation.</p> <p>2. Students understand what regional planning is and the need for regional planning in such a vast country like India.</p> <p>3. Students gain knowledge about various models of regional development.</p> <p>4. Knowledge can be gained for need of regional planning in India, regional</p>

		inequities, historical perspective of regional planning, and various strategies of regional development.
<b>SHGEO/402/C-9T</b>	<b>Geography of Economic Activities</b>	<p>1. Students gain knowledge about different types of agricultural methods. At the same time, knowledge can be gained about what kind of farming methods are adopted in India.</p> <p>2. Students gain a basic understanding of what the tourism industry is and how this industry can impact the economic development of India.</p>
<b>SHGEO/403/C-10P</b>	<b>Environmental Geography</b>	1. Our curriculum plays an important role in

		<p>understanding the environment and gaining a precise knowledge of how the environment is being affected by various human activities.</p> <p>2. Students acquire specific knowledge about how various elements of the environment such as soil, water, air are being polluted and how they can be re-freed from pollution.</p> <p>3. Through various types of measurements and techniques, students gain in-depth knowledge about various aspects of the environment.</p>
<p><b>SHGEO/405/SEC-2P</b></p>	<p><b>GIS and GNSS</b></p>	<p>1. Students will have practical experience on handling GIS softwares and its theoretical</p>

		<p>background.</p> <p>2. Students gain knowledge on how to collect data through GPS and how to present that data in MS Excel as well as GIS platforms.</p> <p>3. Students gain knowledge about the use of various GIS software and how to create their own maps using these software.</p>
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<b>SEMESTER V</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/501/C-11T</b>	<b>Evolution of Geographical Thought</b>	<p>1. Students will gain knowledge about the growth and development of Geography in different eras.</p> <p>2. One can get familiarity with various philosophers and philosophical thoughts.</p> <p>3. The different schools of thought and the</p>

		<p>contributions of the different geographers to those particular schools will give a sense of what geography was all about.</p>
<p><b>SHGEO/502/C-12P</b></p>	<p><b>Remote Sensing Techniques</b></p>	<ol style="list-style-type: none"> <li>1. Students get a basic understanding of remote sensing technique.</li> <li>2. Students are able to collect different types of data through remote sensing and use that data to create different maps; which subsequently in their research work.</li> <li>3. Students get a basic idea about satellites launched by different countries and different satellites of India.</li> </ol>
<p><b>SHGEO/503/DSE-1T</b></p>	<p><b>Hydrology and Oceanography</b></p>	<ol style="list-style-type: none"> <li>1. Students gain an understanding of how surface runoff and groundwater are controlled by various factors after rainwater falls on the earth surface.</li> <li>2. Students learn about the judicious use of an important natural resource like water and various ways to recharge groundwater.</li> <li>3. Students will gain a fair understanding of the Earth's</li> </ol>

		water cycle.
<b>SHGEO/504/DSE-2T</b>	<b>Cultural and Settlement Geography</b>	<p>1. Students will be exposed to different cultures from around the world and will be able to relate their own cultural characteristics to those cultures.</p> <p>2. A fair understanding of the various economic activities and population patterns of rural settlements is imparted in our curriculum.</p>
<b>SHGEO/504/DSE-2T</b>	<b>Urban Geography</b>	<p>1. Knowledge of urbanization trends and urban settlement patterns can be gained.</p> <p>2. Students will be able to gain knowledge about the different aspects of urbanization and the problems that arise as a result of urbanization with special reference to India.</p> <p>3. Students will gain knowledge about the pace of urbanization in India and various models of urbanization.</p>

**SEMESTER VI**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/601/C-13T</b>	<b>Disaster Management</b>	<p>1. Our curriculum is adequate to gain knowledge about how global warming is increasing and the resulting various climatic disturbances are affecting the entire Earth's surface.</p> <p>2. Students will be able to gain knowledge about how different geographical regions of India face different types of disasters and why these disasters are constantly affecting India.</p> <p>3. Knowledge of various types of management plans to prevent man-made and natural disasters from causing significant damage to human resources.</p>

<p><b>SHGEO/602/C-14P</b></p>	<p><b>Research Methodology and Field Work</b></p>	<ol style="list-style-type: none"> <li>1. Students will be able to acquire a basic understanding of what research is and what the materials needed to conduct a systematic and scientific research.</li> <li>2. They gain knowledge about various data collection methods and sampling techniques for conduct a systematic research.</li> <li>3. Students learn to perform a variety of statistical techniques to determine correlations between different sets of data.</li> <li>4. Learn to test research hypotheses and use a variety of statistical techniques to test hypotheses.</li> </ol>
<p><b>SHGEO/603/DSE-3T</b></p>	<p><b>Soil and Biogeography</b></p>	<ol style="list-style-type: none"> <li>1. Students will gain a sound understanding of soil formation processes and various classifications of soils around the world.</li> <li>2. They will be able to gain from our curriculum a sound understanding of the various natural and social factors influencing soil formation.</li> <li>3. Students will be able to gain a high understanding of biosphere and its various components.</li> </ol>



		<p>4. Knowledge of the quantitative location of different types of elements in the biosphere and their effects can be gained.</p>
<p><b>SHGEO/604/DSE-4T</b></p>	<p><b>Population Geography</b></p>	<p>1. Our curriculum gives a fair idea of the spatial characteristics and distribution of population in a particular region.</p> <p>2. Knowledge of population growth and the problems it causes can be gained throughout the world over time.</p> <p>3. Students will be able to draw a correlation between population growth and food supply.</p>
<p><b>SHGEO/604/DSE-4T</b></p>	<p><b>Geography of Health and Well Being</b></p>	<p>1. Students will be able to gain a sound understanding of various types of diseases in society, their sources and their impact on society.</p> <p>2. They will gain knowledge about climate change and the causes and effects of various deadly diseases associated with this climate change.</p> <p>3. Students will be able to learn from our curriculum what can be done to build a healthy and beautiful society by gaining knowledge about the sources of various deadly</p>

		diseases and building immunity against those diseases.
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### **DEPARTMENT OF GEOGRAPHY**

Geography is the subject which helps us to explore and understand space and place - recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them. The principal objective of Geography Programme is to impart knowledge on Geography- its different skills and techniques with special emphasis on modern geospatial techniques of Remote Sensing (RS), Geographical Information System (GIS) and Global Navigation Satellite System (GNSS). This curriculum is also intended to impart training on these new fields to make them suitable for further higher studies and job market.

After the introduction of the CBCS system at Onda Thana Mahavidyalaya in 2018, new frameworks of teaching-learning have been introduced.

### **Program Outcome (PO) (Prog.)**

The Geography Programme students will be given training in understanding the diverse nature and techniques of the subject. They will develop skills in studying man-environment interrelations through field excursions. The study of geography as a programme also enables students in understanding the threats that endanger earth's natural systems as well as it helps to develop skills in finding out the relevance of anthropogenic factors in changing the face of the earth. The students will also gather knowledge about the fundamental concepts

of geography and will have a general understanding about different natural processes and factors such as geology, tectonics, climate, soil, vegetation, ocean resources etc. and human society and culture. Training in practical geography with special emphasis on geospatial techniques will help students to understand maps the geographers' basic tool and how these maps can be prepared.

### **Program Specific Outcome (Prog.)**

Geography is widely accepted as the most emerging science in recent years due to its versatile character to include contents of both science and humanities. Therefore, students from both the streams can choose the subject at their undergraduate level. Bankura University offers B.Sc., degree in Geography keeping in view the demand of the students as well as towards making it more suitable for higher education where stiff competition is prevailed from other science students. Since its inception, the university follows CBCS curriculum based on UGC guidelines with slight modification in view of the local aspects. Geography basically deals with space. The spatial aspects of the earth, their guiding laws and theories, nature and evolution are recorded and represented through a number of instrumental and mechanical ways. A holistic view of the Earth as an entity and the features within the earth are taught to students. The evolution of natural landscape to cultural landscape is illustrated. The mapping techniques are guides to represent all the physical, social, cultural features through proper scaling and elaborative description. The project based studies and analysis are very helpful in building up a research outlook among the students. They learn about the sample drawing procedures and detailed idea about the important issues around them. The course is intersected into several small sections and put under expert faculties of that field to provide the students the desired benefit of the course.

<b>COURSE OUTCOME (CO) (Prog.)</b>		
<b>SEMESTER I</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/101/C-1T</b>	<b>Physical Basis of Earth</b>	<p>1. Understand the origin of the Earth and how the Earth changes over time.</p> <p>2. Along with the changes in the world, different types of life have emerged in different eras and different landforms have emerged which students can easily understand with Geological Timescale.</p> <p>3. Students will be able to gain knowledge about different landforms formed as a result of different processes both outside and inside the Earth's surface.</p>

**SEMESTER II**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/201/C-2T</b>	<b>Human Geography</b>	<p>1. Students will learn about the content and scope and topics of human geography.</p> <p>2. Students will learn about how humans have changed since prehistoric times through readings on human geography.</p> <p>3. Human geography has the details of the location of people of different races and classes in the whole world and where in India what kind of people or class or race live.</p> <p>4. Human geography provides a clear description of the relationship between man and the environment and how humans are in conflict with the environment as a result of human development.</p>

<b>SEMESTER III</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/301/C-3P</b>	<b>Maps and Diagrams</b>	<p>1. They will have an idea of what cartography is and how it relates to geography or how to represent geographic information.</p> <p>2. They will be able to obtain knowledge of the height of an object at any given place and the position of an object relative to the earth with the help of various surveying instruments, like Prismatic Compass, Dumphy Level etc.</p> <p>3. Students can be know the latitudinal position of a particular place and by which particular projection that place can be imaged.</p>
<b>SP/GEO/304/SEC-1</b>	<b>Computer Basics</b>	<p>1. Students will know what a computer is and common uses of computers.</p> <p>2. They will know about different types of computer hardware, software and their usage and different types of input and output devices of computer.</p>

<b>SEMESTER IV</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/401/C-1D</b>	<b>Economic Geography</b>	<p>1. Students will learn about the types of crops grown around the world and the amount of crops produced.</p> <p>2. They will be able to differentiate between agricultural based economies and industrial based economies around the world.</p> <p>3. Students will gain knowledge about different types of agricultural models and industrial models.</p> <p>4. Students will gain basic knowledge about the tourism industry along with an idea of how the tourism industry contributes to the country's economy.</p>
<b>SP/GEO/404/SEC-2</b>	<b>Computer Applications</b>	<p>1. They will be able to present different types of geographical data in excel</p>



		<p>sheet through computer.</p> <p>2. They will be able to relate different types of cartography along with introducing different types of geographic data.</p>
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<b>SEMESTER V</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SP/GEO501/DSE-1A</b>	<b>Hydrology and Oceanography</b>	<p>1. Learn how rainwater is formed and how it is affected by different elements on the surface after it reaches the surface.</p> <p>2. They will develop an idea of the amount of ground water recharge and discharge after rainwater falls on the surface, which will be useful later in water conservation.</p> <p>3. Be able to present the relationship between the hydrosphere and the atmosphere.</p> <p>4. Students will be able to gain a sound</p>

		<p>understanding of the various types of circulation that occur at sea level and the distribution of ocean currents throughout the world.</p>
<p><b>SP/GEO501/DSE-1A</b></p>	<p><b>Urban Geography</b></p>	<ol style="list-style-type: none"> <li>1. Students will get a broad idea of what urbanization is as well as the trends of urbanization in India.</li> <li>2. They will learn about how various types of pollution caused by urbanization are harming people and how people are slowly coming into conflict with the environment.</li> </ol>
<p><b>SP/GEO504/SEC-3</b></p>	<p><b>Remote Sensing Techniques</b></p>	<ol style="list-style-type: none"> <li>1. Students will learn to understand basic concepts of remote sensing as a modern data acquisition tool.</li> <li>2. They will learn in detail how Remote Sensing techniques are used for data acquisition and map making.</li> </ol>

**SEEMSTER VI**

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SP/GEO601/DSE-1B</b>	<b>Soil and Biogeography</b>	<p>1. Students will learn about the distribution of soil throughout the world and where and what materials are needed to form soil.</p> <p>2. Students will learn about not only soil formation but also soil erosion and erosional processes.</p> <p>3. Gain a proper understanding of what biodiversity is and its various components.</p>
<b>SP/GEO601/DSE-1B</b>	<b>Population Geography</b>	<p>1. Students will gain knowledge about the nature of population geography and have an accurate understanding of how populations around the world have grown over time.</p> <p>2. They will also build concepts on population policies and different contemporary issues on population geography.</p> <p>3. By studying population geography, they will be able to get a proper idea about the various types of problems that can be created as a result of increasing population all over the world and the</p>

		negative effects that can be created on the environment.
<b>SP/GEO604/SEC-4</b>	<b>Geographic Information System Lab</b>	<ol style="list-style-type: none"><li>1. Students will gain an understanding of what is GIS and proper use of GIS.</li><li>2. Through GIS they will learn to download maps and create maps through which they will be able to understand the use of digital cartography.</li></ol>

<b>COURSE OUTCOME (CO) (Prog.)</b>		
<b>SEMESTER I</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/101/C-1T</b>	<b>Physical Basis of Earth</b>	<p>1. Understand the origin of the Earth and how the Earth changes over time.</p> <p>2. Along with the changes in the world, different types of life have emerged in different eras and different landforms have emerged which students can easily understand with Geological Timescale.</p> <p>3. Students will be able to gain knowledge about different landforms formed as a result of different processes both outside and inside the Earth's surface.</p>

<b>SEMESTER II</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/201/C-2T</b>	<b>Human Geography</b>	<p>1. Students will learn about the content and scope and topics of human geography.</p> <p>2. Students will learn about how humans have changed since prehistoric times through readings on human geography.</p> <p>3. Human geography has the details of the location of people of different races and classes in the whole world and where in India what kind of people or class or race live.</p> <p>4. Human geography provides a clear description of the relationship between man and the environment and how humans are in conflict with the environment as a result of human development.</p>

<b>SEMESTER III</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SPGEO/301/C-3P</b>	<b>Maps and Diagrams</b>	<p>1. They will have an idea of what cartography is and how it relates to geography or how</p>

		<p>to represent geographic information.</p> <p>2. They will be able to obtain knowledge of the height of an object at any given place and the position of an object relative to the earth with the help of various surveying instruments, like Prismatic Compass, Dumphy Level etc.</p> <p>3. Students can be know the latitudinal position of a particular place and by which particular projection that place can be imaged.</p>
<b>SP/GEO/304/SEC-1</b>	<b>Computer Basics</b>	<p>1. Students will know what a computer is and common uses of computers.</p> <p>2. They will know about different types of computer hardware, software and their usage and different types of input and output devices of computer.</p>

<b>SEMESTER IV</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>

<p><b>SPGEO/401/C-1D</b></p>	<p><b>Economic Geography</b></p>	<p>1. Students will learn about the types of crops grown around the world and the amount of crops produced.</p> <p>2. They will be able to differentiate between agricultural based economies and industrial based economies around the world.</p> <p>3. Students will gain knowledge about different types of agricultural models and industrial models.</p> <p>4. Students will gain basic knowledge about the tourism industry along with an idea of how the tourism industry contributes to the country's economy.</p>
<p><b>SP/GEO/404/SEC-2</b></p>	<p><b>Computer Applications</b></p>	<p>1. They will be able to present different types of geographical data in excel sheet through computer.</p> <p>2. They will be able to relate different types of cartography along with introducing different types of geographic data.</p>



<b>SEMESTER V</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SP/GEO501/DSE-1A</b>	<b>Hydrology and Oceanography</b>	<p>1. Learn how rainwater is formed and how it is affected by different elements on the surface after it reaches the surface.</p> <p>2. They will develop an idea of the amount of ground water recharge and discharge after rainwater falls on the surface, which will be useful later in water conservation.</p> <p>3. Be able to present the relationship between the hydrosphere and the atmosphere.</p> <p>4. Students will be able to gain a sound understanding of the various types of circulation that occur at sea level and the distribution of ocean currents throughout the world.</p>
<b>SP/GEO501/DSE-1A</b>	<b>Urban Geography</b>	<p>1. Students will get a broad idea of what urbanization is as well as the trends of urbanization in India.</p> <p>2. They will learn about how various types of pollution caused by urbanization are harming</p>

		people and how people are slowly coming into conflict with the environment.
<b>SP/GEO504/SEC-3</b>	<b>Remote Sensing Techniques</b>	<p>1. Students will learn to understand basic concepts of remote sensing as a modern data acquisition tool.</p> <p>2. They will learn in detail how Remote Sensing techniques are used for data acquisition and map making.</p>

<b>SEEMSTER VI</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SP/GEO601/DSE-1B</b>	<b>Soil and Biogeography</b>	<p>1. Students will learn about the distribution of soil throughout the world and where and what materials are needed to form soil.</p> <p>2. Students will learn about not only soil formation but also soil erosion and erosional processes.</p> <p>3. Gain a proper understanding of what biodiversity is and its various components.</p>

<p><b>SP/GEO601/DSE-1B</b></p>	<p><b>Population Geography</b></p>	<ol style="list-style-type: none"> <li>1. Students will gain knowledge about the nature of population geography and have an accurate understanding of how populations around the world have grown over time.</li> <li>2. They will also build concepts on population policies and different contemporary issues on population geography.</li> <li>3. By studying population geography, they will be able to get a proper idea about the various types of problems that can be created as a result of increasing population all over the world and the negative effects that can be created on the environment.</li> </ol>
<p><b>SP/GEO604/SEC-4</b></p>	<p><b>Geographic Information System Lab</b></p>	<ol style="list-style-type: none"> <li>1. Students will gain an understanding of what is GIS and proper use of GIS.</li> <li>2. Through GIS they will learn to download maps and create maps through which they will be able to understand the use of digital cartography.</li> </ol>



## **ONDA THANA MAHAVIDYALAYA**

**Onda, Bankura, West Bengal - 722144**

### **DEPARTMENT OF GEOGRAPHY**

Geography is the subject which helps us to explore and understand space and place - recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them. The principal objective of Geography Programme is to impart knowledge on Geography- its different skills and techniques with special emphasis on modern geospatial techniques of Remote Sensing (RS), Geographical Information System (GIS) and Global Navigation Satellite System (GNSS). This curriculum is also intended to impart training on these new fields to make them suitable for further higher studies and job market.

After the introduction of the CBCS system at Onda Thana Mahavidyalaya in 2018, new frameworks of teaching-learning have been introduced.

### **Program Outcome (PO) (Prog.)**

The Geography Programme students will be given training in understanding the diverse nature and techniques of the subject. They will develop skills in studying man-environment interrelations through field excursions. The study of geography as a programme also enables students in understanding the threats that endanger earth's natural systems as well as it helps to develop skills in finding out the relevance of anthropogenic factors in changing the face of the earth. The students will also gather knowledge about the fundamental concepts

of geography and will have a general understanding about different natural processes and factors such as geology, tectonics, climate, soil, vegetation, ocean resources etc. and human society and culture. Training in practical geography with special emphasis on geospatial techniques will help students to understand maps the geographers' basic tool and how these maps can be prepared.

### **Program Specific Outcome (Prog.)**

Geography is widely accepted as the most emerging science in recent years due to its versatile character to include contents of both science and humanities. Therefore, students from both the streams can choose the subject at their undergraduate level. Bankura University offers B.Sc., degree in Geography keeping in view the demand of the students as well as towards making it more suitable for higher education where stiff competition is prevailed from other science students. Since its inception, the university follows CBCS curriculum based on UGC guidelines with slight modification in view of the local aspects. Geography basically deals with space. The spatial aspects of the earth, their guiding laws and theories, nature and evolution are recorded and represented through a number of instrumental and mechanical ways. A holistic view of the Earth as an entity and the features within the earth are taught to students. The evolution of natural landscape to cultural landscape is illustrated. The mapping techniques are guides to represent all the physical, social, cultural features through proper scaling and elaborative description. The project based studies and analysis are very helpful in building up a research outlook among the students. They learn about the sample drawing procedures and detailed idea about the important issues around them. The course is intersected into several small sections and put under expert faculties of that field to provide the students the desired benefit of the course.

<b>COURSE OUTCOME (CO) (Hons.)</b>		
<b>SEMESTER I</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/101/C-1T</b>	<b>Geotectonics and Geomorphology</b>	<p>1. Students can understand what the Earth's interior and exterior were like at the time of Earth's creation.</p> <p>2. The creation of the Earth and its changes over time can be known through various theories such as the Big Bang Theory, Nebula Hypothesis, Gaseous hypothesis etc.</p> <p>3. They can learn about the different types of landforms caused by the internal and external forces of the Earth.</p>
<b>SHGEO/102/C-2P</b>	<b>Cartographic Techniques</b>	<p>1. Learn about different types of Scales, their drawing methods and uses.</p> <p>2. Latitude and longitude of the whole world are determined by different map projections. And knowledge about which projection is suitable for a particular region can be gained.</p> <p>3. There are different types of surveys such as Prismatic Compass survey, Dumphy Level Survey, and Theodolite survey. Through these, we can get an idea of</p>

		how to determine the height of an object, the total area of the place, the distance etc.
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<b>SEMESTER II</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/201/C-3T</b>	<b>Human Geography</b>	<p>1. A clear idea can be gained about the emergence of man and the changes that have taken place in the physical structure of man in different ages.</p> <p>2. There are descriptions of different types of races and ethnicities. A precise knowledge can be gained about the location of different types of races and their different characteristics throughout the world.</p> <p>3. A clear idea of the trends and changes in the population of India and the entire world from ancient times to the present can be obtained.</p> <p>4. Students understand how humans are destroying the natural environment in their pursuit of development and how they are in conflict with the natural environment over time.</p>

<b>SHGEO/ 202/C-4P</b>	<b>Cartograms and Thematic Mapping</b>	<ol style="list-style-type: none"> <li>1. Students gain knowledge about various types of geographic data and how to represent them graphically.</li> <li>2. Learn about different types of maps and their uses.</li> <li>3. Through topographical maps, students develop knowledge about how different Social features relate to Natural landforms.</li> </ol>

<b>SEMESTER III</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/ 301/C-5T</b>	<b>Climatology</b>	<ol style="list-style-type: none"> <li>1. Students are able to gain a clear knowledge about the composition of the Atmosphere, the various components and the various phenomena that occur in the Atmosphere.</li> <li>2. A clear understanding of the various types of atmospheric disturbances, their distribution and their impact on the Earth's surface can be gained.</li> <li>3. Students gain a fair understanding of the climatic</li> </ol>



		<p>classification of the entire world.</p> <p>4. Students able to get a definite idea about the formation and movement of Monsoon Wind.</p>
<b>SHGEO/ 302/C-6T</b>	<b>Geography of India</b>	<ol style="list-style-type: none"> <li>1. Students can get a clear understanding of India's physiographic divisions, drainage patterns, soils, vegetation etc.</li> <li>2. Knowledge can be gained about the distribution of different types of mineral resources and utilization of non-renewable resources.</li> <li>3. Students gain knowledge about India's agriculture, industry, automobile industry and information technology.</li> <li>4. Students can learn about the topography of West Bengal, agriculture, distribution of mineral resources and various problems related to agriculture.</li> </ol>
<b>SHGEO/ 303/C-7P</b>	<b>Statistical Methods in Geography</b>	<ol style="list-style-type: none"> <li>1. Students gain basic understanding of various types of statistical data and Tabulation.</li> <li>2. Students can learn about different methods of data collection and sampling techniques.</li> </ol>

		<p>3. Students are able to analyze and interpret geographic data using various types of statistical techniques.</p> <p>4. Students learn to use various types of statistical techniques to test the hypothesis that is developed in research.</p>
<b>SHGEO/305/SEC-1P</b>	<b>Computer Basics and Applications</b>	<p>1. Students gain a basic understanding of what a computer is and the various types of input, output devices, and software-hardware of a computer.</p> <p>2. Students learn how to analyze and represent various types of geographic data using Excel.</p>

<b>SEMESTER IV</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/401/C-8T</b>	<b>Regional planning &amp; Development</b>	<p>1. Students gain knowledge about many types of Region and various methods of regional Delineation.</p> <p>2. Students understand what regional planning is</p>

		<p>and the need for regional planning in such a vast country like India.</p> <p>3. Students gain knowledge about various models of regional development.</p> <p>4. Knowledge can be gained for need of regional planning in India, regional inequities, historical perspective of regional planning, and various strategies of regional development.</p>
<p><b>SHGEO/402/C-9T</b></p>	<p><b>Geography of Economic Activities</b></p>	<p>1. Students gain knowledge about different types of agricultural methods. At the same time, knowledge can be gained about what kind of farming methods are adopted in India.</p> <p>2. Students gain a basic understanding of what the tourism industry is and how this industry can impact the economic</p>

		development of India.
<b>SHGEO/403/C-10P</b>	<b>Environmental Geography</b>	<p>1. Our curriculum plays an important role in understanding the environment and gaining a precise knowledge of how the environment is being affected by various human activities.</p> <p>2. Students acquire specific knowledge about how various elements of the environment such as soil, water, air are being polluted and how they can be re-freed from pollution.</p> <p>3. Through various types of measurements and techniques, students gain in-depth knowledge about various aspects of the environment.</p>
<b>SHGEO/405/SEC-2P</b>	<b>GIS and GNSS</b>	<p>1. Students will have practical experience on handling GIS softwares and its</p>

		<p>theoretical background.</p> <p>2. Students gain knowledge on how to collect data through GPS and how to present that data in MS Excel as well as GIS platforms.</p> <p>3. Students gain knowledge about the use of various GIS software and how to create their own maps using these software.</p>
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<b>SEMESTER V</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/501/C-11T</b>	<b>Evolution of Geographical Thought</b>	<p>1. Students will gain knowledge about the growth and development of Geography in different eras.</p> <p>2. One can get familiarity with various philosophers and philosophical thoughts.</p> <p>3. The different schools of thought and the contributions of the different geographers to those particular schools will give a sense of what geography was all about.</p>

<p><b>SHGEO/502/C-12P</b></p>	<p><b>Remote Sensing Techniques</b></p>	<ol style="list-style-type: none"> <li>1. Students get a basic understanding of remote sensing technique.</li> <li>2. Students are able to collect different types of data through remote sensing and use that data to create different maps; which subsequently in their research work.</li> <li>3. Students get a basic idea about satellites launched by different countries and different satellites of India.</li> </ol>
<p><b>SHGEO/503/DSE-1T</b></p>	<p><b>Hydrology and Oceanography</b></p>	<ol style="list-style-type: none"> <li>1. Students gain an understanding of how surface runoff and groundwater are controlled by various factors after rainwater falls on the earth surface.</li> <li>2. Students learn about the judicious use of an important natural resource like water and various ways to recharge groundwater.</li> <li>3. Students will gain a fair understanding of the Earth's water cycle.</li> </ol>
<p><b>SHGEO/504/DSE-2T</b></p>	<p><b>Cultural and Settlement Geography</b></p>	<ol style="list-style-type: none"> <li>1. Students will be exposed to different cultures from around the world and will be able to relate their own</li> </ol>

		<p>cultural characteristics to those cultures.</p> <p>2. A fair understanding of the various economic activities and population patterns of rural settlements is imparted in our curriculum.</p>
<b>SHGEO/504/DSE-2T</b>	<b>Urban Geography</b>	<p>1. Knowledge of urbanization trends and urban settlement patterns can be gained.</p> <p>2. Students will be able to gain knowledge about the different aspects of urbanization and the problems that arise as a result of urbanization with special reference to India.</p> <p>3. Students will gain knowledge about the pace of urbanization in India and various models of urbanization.</p>

<b>SEMESTER VI</b>		
<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>COURSE OUTCOME</b>
<b>SHGEO/601/C-13T</b>	<b>Disaster Management</b>	<p>1. Our curriculum is adequate to gain knowledge about how global warming is increasing and the resulting various climatic disturbances are affecting the entire Earth's</p>

		<p>surface.</p> <p>2. Students will be able to gain knowledge about how different geographical regions of India face different types of disasters and why these disasters are constantly affecting India.</p> <p>3. Knowledge of various types of management plans to prevent man-made and natural disasters from causing significant damage to human resources.</p>
<p><b>SHGEO/602/C-14P</b></p>	<p><b>Research Methodology and Field Work</b></p>	<p>1. Students will be able to acquire a basic understanding of what research is and what the materials needed to conduct a systematic and scientific research.</p> <p>2. They gain knowledge about various data collection methods and sampling techniques for conduct a systematic research.</p> <p>3. Students learn to perform a variety of statistical techniques to determine correlations between different sets of data.</p> <p>4. Learn to test research hypotheses and use a variety of statistical techniques to test hypotheses.</p>



<p><b>SHGEO/603/DSE-3T</b></p>	<p><b>Soil and Biogeography</b></p>	<ol style="list-style-type: none"> <li>1. Students will gain a sound understanding of soil formation processes and various classifications of soils around the world.</li> <li>2. They will be able to gain from our curriculum a sound understanding of the various natural and social factors influencing soil formation.</li> <li>3. Students will be able to gain a high understanding of biosphere and its various components.</li> <li>4. Knowledge of the quantitative location of different types of elements in the biosphere and their effects can be gained.</li> </ol>
<p><b>SHGEO/604/DSE-4T</b></p>	<p><b>Population Geography</b></p>	<ol style="list-style-type: none"> <li>1. Our curriculum gives a fair idea of the spatial characteristics and distribution of population in a particular region.</li> <li>2. Knowledge of population growth and the problems it causes can be gained throughout the world over time.</li> <li>3. Students will be able to draw a correlation between population growth and food supply.</li> </ol>
<p><b>SHGEO/604/DSE-4T</b></p>	<p><b>Geography of Health and Well Being</b></p>	<ol style="list-style-type: none"> <li>1. Students will be able to</li> </ol>

		<p>gain a sound understanding of various types of diseases in society, their sources and their impact on society.</p> <p>2. They will gain knowledge about climate change and the causes and effects of various deadly diseases associated with this climate change.</p> <p>3. Students will be able to learn from our curriculum what can be done to build a healthy and beautiful society by gaining knowledge about the sources of various deadly diseases and building immunity against those diseases.</p>
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### **DEPARTMENT OF GEOGRAPHY**

Geography is the subject which helps us to explore and understand space and place - recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them. Geography is sometimes considered as the mother of all sciences due to its links and influences on a range of other scientific fields including Biology, Mathematics, Anthropology, Geology, Astronomy and Chemistry. After the introduction of the CBCS system at Onda Thana Mahavidyalaya in 2018, new frameworks of teaching-learning have been introduced. As a result, by pursuing the programme, students can build practical idea on various fields including Remote Sensing and GIS, which they can further use in various research endeavours.

### **Program Outcome (PO) (Hons.)**

Geography is the study of distribution of elements over space as well as the mutual and reciprocal relationship between man and environment. It also studies different activities of man in different milieu of life in changing the face of the earth, how 'space' turns into 'place' with different values added to it by man's varied modes of life with due emphasis on major empirical questions of 'what', 'why', 'how' and 'where'.

Therefore, the study of this discipline at undergraduate level would have the following Learning outcomes in general:

- i.** It helps to develop a holistic understanding of the earth as the home of man.
- ii.** Student can understand what Geography really is. They shall come to know that geography isn't merely a 'science of place names', rather it is true science of distribution with expertise in various modern skills and techniques.
- iii.** Students will be able to find their place in job market both in academic as well as corporate sector.
- iv.** Students also can explore the engineering aspects of the discipline particularly Geoinformatics, Geoinformation Science, Geomatics, Engineering etc.
- v.** At the end of the course, students will be capable of segmenting the whole discipline in three different components- physical, human and applied.

### **Program Specific Outcome (Hons.)**

Geography is widely accepted as the most emerging science in recent years due to its versatile character to include contents of both science and humanities. Therefore, students from both the streams can choose the subject at their undergraduate level. Bankura University offers B.Sc., degree in Geography keeping in view the demand of the students as well as towards making it more

suitable for higher education where stiff competition is prevailed from other science students. Since its inception, the university follows CBCS curriculum based on UGC guidelines with slight modification in view of the local aspects. Geography basically deals with space. The spatial aspects of the earth, their guiding laws and theories, nature and evolution are recorded and represented through a number of instrumental and mechanical ways. A holistic view of the Earth as an entity and the features within the earth are taught to students. The evolution of natural landscape to cultural landscape is illustrated. The mapping techniques are guides to represent all the physical, social, cultural features through proper scaling and elaborative description. The project based studies and analysis are very helpful in building up a research outlook among the students. They learn about the sample drawing procedures and detailed idea about the important issues around them. The course is intersected into several small sections and put under expert faculties of that field to provide the students the desired benefit of the course.