



**30 HOURS ADD-ON COURSE**  
**on**  
**FUNDAMENTALS OF OCEANOGRAPHY**

**Open to all Geography Honours students**

**Organized by**  
**Department of Geography**  
**Hazi A. K. Khan College**

**Session: 2022-23**

## **BASIC DETAILS OF THE 30 HOURS ADD-ON COURSE**

<b>1.</b>	<b>Course Title</b>	<b>Fundamentals of Oceanography</b>
<b>2.</b>	<b>Pre-requisite</b>	All Under-Graduate students of Geography Honours
<b>3.</b>	<b>Course Outcome</b>	After completing the course, the students will be able to- <ul style="list-style-type: none"> <li>➤ Get the idea about the significance and relevance of Oceanography</li> <li>➤ Develop the knowledge about temperature, density and salinity of ocean water</li> <li>➤ Realise the determining factors of ocean currents</li> <li>➤ Construct the idea of ocean currents of the Pacific ocean, the Atlantic ocean and the Indian ocean</li> <li>➤ Assess the bottom topography of Pacific Ocean, Atlantic Ocean and Indian ocean</li> <li>➤ Build the idea about coral reefs</li> </ul>
<b>4.</b>	<b>Course Commencement Date</b>	April,2023-May,2023
<b>5.</b>	<b>Course Fee</b>	NIL
<b>6.</b>	<b>Intake Capacity</b>	All Under-Graduate students of Geography Honours
<b>7.</b>	<b>Course Duration</b>	One Class (Lecture): 1 Hour 30 Lectures= 30 Hours Final Assessment on the Last day
<b>8.</b>	<b>Learning Resources</b>	Details given in page
<b>9.</b>	<b>Lesson Plan</b>	Details given in page
<b>10.</b>	<b>Assessment process</b>	Students will be graded on Course-end Assessment and Attendance
<b>11.</b>	<b>Course Coordinator</b>	Protyus Kumar Ghosh
<b>12.</b>	<b>Course Certificate Format</b>	Format given in Page

## DETAILED SYLLABUS OF THE ADD-ON COURSE

- **Module 1:** Nature and scope of Oceanography and its relevance [TIME: 5 HOURS]
- **Module 2:** Temperature, salinity and density of ocean water [TIME: 5 HOURS]
- **Module 3:** Factors influencing ocean currents & the currents of Pacific Ocean, Atlantic Ocean and Indian Ocean [TIME: 8 HOURS]
- **Module 4:** Bottom topography: Pacific ocean, Atlantic ocean and Indian ocean [TIME: 7 HOURS]
- **Module 5:** Concept about coral reefs and its origin [TIME: 5 HOURS]

## LEARNING RESOURCES- ESSENTIAL READINGS

SL.NO.	TITLE OF THE BOOK	AUTHOR(S)
01	সাগরীয় ভূগোলের রূপরেখা	অলোক পাল
02	ভূ-জলবিদ্যা ও সমুদ্রবিদ্যা	দ্যুতিমান ভট্টাচার্য ও মৈত্রেয়ী চক্রবর্তী
03	Oceanography	Savindra Singh

## **LESSON PLAN**

<b>LECTURES</b>	<b>CONTENTS</b>
<b>LECTURE 1 (1 hour)</b>	<b>Evolution of Oceanography</b>
<b>LECTURE 2 (1 hour)</b>	<b>Nature of Oceanography</b>
<b>LECTURE 3 (1 hour)</b>	<b>Scope of Oceanography</b>
<b>LECTURE 4 (1 hour)</b>	<b>Relation of this branch of Geography with other disciplines</b>
<b>LECTURE 5 (1 hour)</b>	<b>Relevance of Oceanography at present day context</b>
<b>LECTURE 6 (1 hour)</b>	<b>Concept about temperature of ocean water</b>
<b>LECTURE 7 (1 hour)</b>	<b>Factors influencing the temperature of ocean water</b>
<b>LECTURE 8 (1 hour)</b>	<b>Discussion about salinity of ocean water</b>
<b>LECTURE 9 (1 hour)</b>	<b>Factors controlling the salinity of ocean water</b>
<b>LECTURE 10 (1 hour)</b>	<b>Density of ocean water</b>
<b>LECTURE 11 (1 hour)</b>	<b>Factors influencing ocean currents</b>
<b>LECTURE 12 (1 hour)</b>	<b>Factors influencing ocean currents</b>
<b>LECTURE 13 (1 hour)</b>	<b>Scenario of currents of the Pacific ocean</b>
<b>LECTURE 14 (1 hour)</b>	<b>Scenario of currents of the Pacific ocean</b>
<b>LECTURE 15 (1 hour)</b>	<b>Scenario of currents of the Atlantic ocean</b>
<b>LECTURE 16 (1 hour)</b>	<b>Scenario of currents of the Atlantic ocean</b>
<b>LECTURE 17 (1 hour)</b>	<b>Scenario of currents of the Indian ocean</b>
<b>LECTURE 18 (1 hour)</b>	<b>Scenario of currents of the Indian ocean</b>
<b>LECTURE 19 (1 hour)</b>	<b>Brief idea about bottom topography of ocean</b>
<b>LECTURE 20 (1 hour)</b>	<b>Bottom topography of the Pacific ocean</b>
<b>LECTURE 21 (1 hour)</b>	<b>Bottom topography of the Pacific ocean</b>
<b>LECTURE 22 (1 hour)</b>	<b>Bottom topography of the Atlantic ocean</b>
<b>LECTURE 23 (1 hour)</b>	<b>Bottom topography of the Atlantic ocean</b>
<b>LECTURE 24 (1 hour)</b>	<b>Bottom topography of the Indian ocean</b>
<b>LECTURE 25 (1 hour)</b>	<b>Bottom topography of the Indian ocean</b>
<b>LECTURE 26 (1 hour)</b>	<b>Concept of coral reefs</b>
<b>LECTURE 27 (1 hour)</b>	<b>Components of coral reefs</b>
<b>LECTURE 28 (1 hour)</b>	<b>Ecological conditions for the growth of coral reefs</b>
<b>LECTURE 29 (1 hour)</b>	<b>Characteristics of coral reefs</b>
<b>LECTURE 30 (1 hour)</b>	<b>Theories of the origin of coral reefs</b>

## EVALUATION PROCESS FOR THE ADD-ON COURSE

The Evaluation will be done through 2 components –

- i) C1- Course-end Assessment [Total Marks:30]
- ii) C2 - Attendance [Total Marks: 05]

At the end of the Course, there will be a Course-end Assessment. Attendance Component Marks will be calculated based on the actual Attendance Percentage of the Students during the classes of the Course.

ATTENDANCE PERCENTAGE (%)	MARKS ALLOTTED
ABOVE 90	5
80 - 89	4
75 - 79	3
70 - 74	2
60 - 69	1
BELOW 60	NOT ELIGIBLE FOR CERTIFICATE

## MODEL CERTIFICATE

