

Academic Council

Item No: _____

Devrukh Shikshan Prasarak Mandal's

NYA. TATYASAHEB ATHALYE ARTS, VED. S.R. SAPRE COMMERCE &

VID. DADASAHEB PITRE SCIENCE COLLEGE, DEVRUKH

[AN AUTONOMOUS COLLEGE AFFILIATED TO UNIVERSITY OF MUMBAI]



Syllabus for Second Year Bachelor of Arts

Program: S. Y. B. A.

Course: Geography (Paper-I)

Course Code: UAGEO41

Semester IV

Course Title: Introduction to Oceanography

Credit Based Semester and Grading System

w. e. f. Academic Year 2020-2021

Second Year of Bachelor of Arts
Revised Syllabus under Autonomy

Semester	Paper Code	Paper	Lectures /Practicals	Evaluation Weightage			Credits
				External	Internal	Total	
Semester III	UAGEO31	Geography Paper-I Introduction to Climatology	45	70	30	100	03
	UAGEO32	Geography Paper-II Physical Geography of India	45	70	30	100	03
Semester IV	UAGEO41	Geography Paper-I Introduction to Oceanography	45	70	30	100	03
	UAGEO42	Geography Paper-II Agricultural Geography of India	45	70	30	100	03

**Syllabus for Second Year of Bachelor of Arts Programme in the subject of Geography
(With effect from the academic year 2020-2021)**

SEMESTER-IV

Geography Paper-I: Introduction to Oceanography

COURSE CODE: UAGEO41

Credits - 03

Learning Objectives

The main objectives of the course are as given below.

- The course aims to shed light on the changing nature and scope of the Oceanography, ocean floor and its characteristics, ocean water composition, movement of ocean water, etc.
- The course goals to develop a scientific approach among the students.
- The course aims to instill mapping skills related to oceanography among the students.

Course Content

Unit-I: Introduction to Oceanography		11
1.1	Origin and Development of Oceanography	lecture
1.2	Definition, nature and scope of Oceanography	
1.3	Branches of oceanography: physical chemical and biological	
1.4	Major Oceans and its characteristic features	
1.5	Ocean floor and its characteristics	
1.6	Oceans and global climate change	
Unit-II: Ocean Water Composition		11
2.1	Composition of ocean water	Lectures
2.2	Factors affecting ocean water temperature	
2.3	Vertical and horizontal distribution of ocean temperature	
2.4	Factors affecting salinity of ocean water	
2.5	Vertical and horizontal distribution of oceanic salinity	
2.6	Factors affecting Density of ocean water and its Distribution	
Unit-III: Movements of Ocean Water		11
3.1	Waves- Formation and types	Lectures
3.2	Tsunami and their effects on coast	
3.3	Concept and types of Tides	
3.4	Equilibrium theory of Tides	
3.5	Ocean Currents – types and their effects	
3.6	El- Niño and La-Niña phenomenon and its impact on Indian Monsoon	
Unit-IV: Practical Component		12
4.1	Distance measurement on the Ocean Surface:	Lectures
4.2	Map filling : Related to Oceanography	
4.3	Signs and Symbols used on Navigation Charts and bathymetric maps	
4.4	Creation of Isohalines Map	
4.5	Reading and Interpretation of navigation charts and bathymetric maps	
4.6	Measurement of Ocean water temperature, salinity and density	

Practical Record: A journal comprising one exercise each needs to be completed by the student.

Learning Outcomes

On completion of the course the student should have the following learning outcomes defined in terms of knowledge, skills, and general competence:

Knowledge

The student will know of:

- Changing nature and scope of Oceanography and the branches of the Oceanography;
- The distributional pattern of oceans and the ocean floor characteristics;
- Composition and characteristics of the ocean water;
- Circulation of the ocean water;

Skills

Student can:

- Analyze the ocean water composition;
- Depict various features related to the ocean on the Map
- Acquire skills of map-making and demarcation of the point line and polygon features;

General competence

The student can read and interpret the maps related to bathymetry and oceanic navigation.

Required Previous Knowledge

For the study of the theoretical component of the course, any previous knowledge is not required but for the practical component, the basic knowledge graph preparation is necessary.

Access to the Course

The course is available for all the students admitting for Bachelor of Arts and selected Geography as an optional subject and cleared the lower examination or eligible for the admission in the class as per the rules and regulations.

Forms of Assessment

The assessment will be external as well as internal. **The pattern of external and internal assessment will be 70:30.** The question paper pattern will be as given below.

External evaluation (70 Marks)

Question Paper Pattern

Time: 2.5 hours

Question No.	Unit/s	Question Pattern	Marks
Q.1	All	a) Fill in the Blanks- 10 marks b) Match the following- 04 marks	14
Q.2	Unit-1	Attempt any two questions from the followings a) b) c)	14
Q.3	Unit-2	Attempt any two questions from the followings a) b) c)	14
Q.4	Unit-3	Attempt any two questions from the followings a) b) c)	14
Q. 5	Unit-4	Attempt any two from the following a) b) c) d)	14
Total			70

Internal evaluation (30 Marks)

Sr. No.	Description	Marks
1	Test (Preferably Online Test with One Hour Duration- MCQ, Match the following, True or False, etc.) (30 marks will be converted into 10)	10
2	Practical Record File as mentioned in unit IV	10
3	Overall Conductance	10
Total		30

Grading Scale

The grading scale used is O to F. Grade O is the highest passing grade in the grading scale, grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

Reference books:-

1. Bhatt, J.J. (1978): Exploring the Planet Ocean, D.Von Nostrand Co. New York.
2. Birla Economic Research Foundation, economic Research Division (1992): The Oceans, Allied Publishers Ltd. New Delhi.
3. Chandra, S., and Others (eds). (1993): The Indian Ocean and its islands: Strategic Scientific and Historical perspectives, Sage Publications, New Delhi.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Fairbridge, R.W. (ed) Encyclopedia of Oceanography, Reinholt, New York.
6. Sharma, R.C. (ed)(1985): The Oceans: realities and Prospects, Rajesh Publications, New Delhi.
7. Sengupta, R., and Desa E,(eds) (2001): The Indian Ocean: A Perspective Vol., I and II Oxford and IBH Publishing Company Private Limited, New Delhi.
8. Paul, P.R.(1998): Invitation to Oceanography, Jones and Bartlett Publishing, Sudbury, Massachusetts.
9. Rajagopalan, R (ed) (1996): Voices for Oceans, A Report to the Independent World Commission on the Oceans, International Ocean Institute, Operational center, Madras, India.
10. Qasim, S.Z(1998): Glimpses of Indian Ocean, Universities Press(India) Limited, Hyderabad.