

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 First Year of M.A./ M. Sc.

Program: M.A./ M. Sc.

Course: Geography

Course Code: PAGEO21

Semester II

Geography Paper - I:- Oceanography and Hydrology

Credit Based Semester and Grading System with the Effect from

Academic Year 2019-20

M.A./ M. Sc. General (Semester Pattern)
First Year M.A./ M. Sc.
Semester-II

Paper Code	Paper	Lectures /Practical	Evaluation Weightage			Credits
			External	Internal	Total	
PAGEO21	Geography Paper-I Oceanography and Hydrology	60 Contact + 60 Notional	70	30	100	04
PAGEO22	Geography Paper-II Geoinformatics	60 Contact + 60 Notional	70	30	100	04
PAGEO23	Geography Paper-III Socio-cultural and Political Geography	60 Contact + 60 Notional	70	30	100	04
PAGEO24	Geography Paper-IV Urban Geography	60 Contact + 60 Notional	70	30	100	04
PAGEO25	Practical components based on 21 and 22: Practical Paper-I Tools and Techniques of Spatial Analysis - III	60 Contact + 60 Notional	100			04
PAGEO26	Practical components based on 23 and 24: Practical Paper-II Tools and Techniques of Spatial Analysis - IV	60 Contact + 60 Notional	100			04

**Syllabus for First Year M.A./ M. Sc. Programme in the subject of Geography
(With effect from the academic year 2019-2020)**

Semester-II, Geography Paper – I: Oceanography and Hydrology

Teaching Hours **60** + Notional Hours **60**= Total hours **120**

COURSE CODE: PAGEO21

Credits - 04

Learning Objectives			
<ul style="list-style-type: none"> ➤ The course provides an overview of Oceanography, Hydrology, Formation of the oceans, characteristics of the ocean water, movements of the ocean water, ocean deposits, hydrological cycle, water budget and balance, watershed management, etc. and practical component based on it. ➤ It aims to shed light on the definition, nature, and scope of oceanography and hydrology, the composition of the ocean water, movements of the ocean water, and the components of the watershed management. ➤ The course shall further convey an understanding of oceanography and hydrology with spatial and temporal context. 			
COURSE CONTENT			
Topic No.	Content	Credits	No. of Lectures
1	Fundamental Concepts in Oceanography <ul style="list-style-type: none"> ○ Definition, nature, and scope of oceanography ○ Age and origin of oceans, and ocean morphology. ○ Distribution of temperature, salinity, and density of oceans. 	01	15
2	Ocean Currents and Resources <ul style="list-style-type: none"> ○ Ocean currents: Atlantic, Pacific, and Indian Oceans. ○ waves and tsunamis, tides. ○ Marine sediments and deposits ○ Food and mineral resources of the sea. 	01	15
3	Introduction to Hydrology <ul style="list-style-type: none"> ○ Hydrological cycle, Factors affecting the movement of water, Patterns of movement ○ Water Budget, World water Resources, ○ World Water Balance, Global Freshwater Resources, ○ History of Hydrology 	01	15
4	Watershed, Its Characteristics and Evaporation Process <ul style="list-style-type: none"> ○ Topographic and Effective Watershed ○ Physiographic characteristics of a Watershed- Geometric & Drainage Network ○ Agro-Pedo Geological Characteristics – Soil Cover, Soil type, Geology ○ Metrological Factors influencing Evaporation- Physical Factors involved in the Evaporation Process. 	01	15
Total		04	60

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 can explain the nature and scope of oceanography and hydrology, the composition of the ocean water, movements of the ocean water and factors responsible, hydrological cycle, water budget and water balances, watershed management, and geomorphic and climatic factors behind watershed management.

Skills

The student can plan and carry out oceanographic and hydrological field investigations in the locality and identify the changing nature of the watershed and implementation of the Integrated Watershed Management Programme in the region.

General competence

The student can describe and discuss oceanographic and hydrological processes with context to the Konkan region in the precise scientific language.

Required Previous Knowledge

Knowledge of fundamentals of Geomorphology and Climatology is necessary before to start to learn the course

Access to the Course

The course is compulsory and it is available for all the students admitting for the Master of Arts in Geography.

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	Fill in the Blanks	14
Q.2	All	Explain Any four concepts from the following (Out of six) (Knowledge-Based Question)	20
Q.3	All	Attempt Any two questions from the following (Out of four) (Skill-Based Question)	20
Q.4	All	Attempt any one question from the following (Out of four) (Long Answer Question based on General Competence)	16
Total			70

Internal evaluation (30 Marks)

Sr. No.	Description	Marks
1	Test (Preferably Online Test with Fifteen Minutes Duration- MCQ, Match the following, True or False, etc.)	10
2	Project Report/ Seminar/ Group Discussion/ Any other assignment as allocated by the teacher	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.

References:

1. Agarwal A. and Narain, S. (1997), "Dying Wisdom: Rise, Fall, and Potential of India's Traditional Water Harvesting System", CSE, New Delhi.
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4. Charlu, T.G.K., and Dutt, D. K. (1982), "Ground Water Development in India" Rural Electrification Corporation, New Delhi.
5. Chorley, R. J. (1967), "Water, Earth and Man", Methuen, London.
6. Chorley, R. J. (1969), "Introduction to Physical Hydrology", Methuen, London.
7. Elizabeth M. Shaw (1994) Hydrology in Practice, Taylor & Francis e-Library Publication New Hampshire.
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- Practices”, Tara Publication, Varanasi.
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 16. Singh, S. (2014). *Oceanography*. Allahabad: Pravalika Publications.
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