



SECOND-YEAR OF BACHELOR OF ARTS MAJOR GEOGRAPHY REVISED SYLLABUS ACCORDING TO CBCS NEP2020

COURSE TITLE: INTRODUCTION TO CLIMATOLOGY
SEMESTER-III, W.E.F. 2024-2025

**RECOMMENDED BY THE BOARD OF STUDIES IN GEOGRAPHY
AND
APPROVED BY THE ACADEMIC COUNCIL
Devrukh Shikshan Prasarak Mandal's
Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal. Sangmeshwar, Dist. Ratnagiri-415804, Maharashtra, India**

Academic Council Item No: 03

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Arts
Name of the Department	:	Geography
Name of the Class	:	Second Year
Semester	:	Third
No. of Credits	:	04
Title of the Course	:	Introduction to Climatology
Course Code	:	A201GEC
Name of the Vertical in adherence to NEP 2020	:	Major and Minor
Eligibility for Admission	:	
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
The pattern of market distribution for TE and CIA	:	60:40
Status	:	NEP-CBCS
To be implemented from the Academic Year	:	2024-2025
Ordinances/Regulations (if any)		

Syllabus for Second Year of Bachelor of Arts in Geography

(With effect from the academic year 2024-2025)

SEMESTER-III

Paper No.-I

Course Title: Introduction to Climatology

No. of Credits - 04

Type of Vertical: Major and Minor

COURSE CODE: A201GET

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to...

Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Remember the fundamentals of climatic concepts, terminology and processes
CLO-02	Understand	Understand the basic principles of climatology and climatic distribution, climatic patterns and changes.
CLO-03	Apply	Apply the application of climatological knowledge to analyse specific climate data or phenomena, connecting theory to real-world
CLO-04	Analyze	Analyze climatological processes, identify patterns, and analyse the impact of human activities on climate change.
CLO-05	Evaluate	Evaluate the different climatological models, considering their strengths and limitations.
CLO-06	Create	Create models; develop research proposals and solutions to address challenges related to climate issues.

Syllabus for Second Year of Bachelor of Arts in Geography**(With effect from the academic year 2024-2025)****SEMESTER-III****Paper No.–Geography Paper –I****Course Title: Introduction to Climatology****No. of Credits - 04****Type of Vertical: Major and Minor****COURSE CODE: A201GEC**

COURSE CONTENT			
Module No.	Content	Credits	No. of Lectures
1	Introduction to Climatology: <ul style="list-style-type: none"> ○ Definition, nature, scope and branches of climatology ○ Concept and elements of weather and climate ○ Composition and structure of atmosphere ○ Insolation: Factors affecting the distribution ○ Temperature: Factors affecting the distribution ○ Temperature: Horizontal and Vertical distribution of Atmospheric Temperature 	01	15
2	Air Pressure and Atmospheric Circulation: <ul style="list-style-type: none"> ○ Air pressure: Concept and Factors affecting air pressure distribution ○ Horizontal distribution of air pressure ○ Wind: Types of winds – global, regional and local ○ Upper air circulation – jet stream (concept, origin and effects) ○ Cyclones: tropical and temperate ○ Anti-cyclones 	01	15
3	Humidity and Precipitation: <ul style="list-style-type: none"> ○ Humidity: Types - absolute, relative and specific ○ Condensation and its forms ○ Precipitation and its types ○ Global distribution of rainfall ○ El Nino and Indian monsoon ○ Global warming and climate change 	01	15
4	Climatic Data Analysis: <ul style="list-style-type: none"> ○ IMD Weather Maps: Conceptual and Historical Background ○ Signs and Symbols in Weather Maps ○ Reading and Interpretation of Weather Maps ○ Construction of the Wind Rose ○ Construction of the Climograph ○ Construction of the Hyther Graph ○ Collection of Local Weather Data 	01	15
Total		04	60

Required Previous Knowledge

No previous knowledge is necessary to learn the course.

Access to the Course

The course is available for all the students admitted for Bachelor of Arts as a Major or a minor. The students seeking admission in other disciplines may select the course as a minor considering the terms and conditions laid down by the University of Mumbai, the Government of Maharashtra, and the college, from time to time.

Methods of Assessment:

The assessment pattern would be 60:40, 60% for Semester End Examination (SEE) and 40 % for Continuous Internal Assessment (CIA). The structure of the SEE and CIA would be as recommended by the Board of Studies and approved by the Board of Examination and the Academic Council of the college.

Grading Scale

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

References:

Reference Books:-

1. Ahrens, C.D. (2012): Essentials of Meteorology: An Invitation to the Atmosphere; Cengage Learning, Boston
2. Ahrens, C.D., Jackson, P.L., Jackson, C.E.J., and Jackson, C.E.O. (2012): Meteorology Today: An Introduction to Weather, Climate and the Environment; Cengage Learning; Boston
3. Barry, R.G. and Chorley, R.J. (2003): Atmosphere, Weather and Climate; Psychology Press, Hove; East Sussex.
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. Critchfield, H.J., (1975): general Climatology, Prentice-Hall, New Jersey.
6. Lal D.S. (1997): Climatology; Sharda Pustak Bhavan; Allahabad
7. Lydolph, P.E.(1985): The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey.
8. Mather, J.R.(1974): Climatology: Fundamentals and Applications; Mc Craw Hill Book Co., U.S.A.
9. Matthews, W. H., Kellogg, W., Robinson, G.D. (1971): Man's Impact on Climate;

M.I.T. Press Design Dept. U.S.A.

10. Oliver, J.E. (1993): *Climatology: An Atmospheric Science*, Pearson Education India, New Delhi
11. Rosenberg, N.J., Blad, B.L., Verma, S.B.(1983): *Micro-climate Biological Environment*; John Wiley & Sons, U.S.A.
12. Rumney, G.R. (1968): *Climatology and the World Climates*, Macmillan, London.
13. Shinde P.; Pednekar H. et.al. (2010): *Introduction to Geography*, Sheth Publishers Pvt.Ltd., Mumbai.
14. Subrahmanyam, V.P. (ed) (1983): *Contributions to Indian Geography a) Vol III- General Climatology, b) Volume IV- Applied Climatology*. Heritage Publishers, New Delhi.
15. Trewartha, G.T. (1980): *An Introduction to Climate*; McGraw Hill, New York, 5th edition, (International Student Edition)