



PREAMBLE

The Course on Climatology has been incorporated a Core Course in the syllabus of S.Y.B.A. The students have been introduced to Geomorphology and Human Geography at F.Y.B.A. level. The logical extension of geographical knowledge shall be Climatology, which is the second important branch of Physical Geography. As Physical Geography is the base of all other sub-branches, it is necessary for students to learn the basic processes operating in earth's atmosphere before venturing into higher studies. This course is also important to make students aware about earth's climate change crisis.

Programme: B.A.				Semester: III	
Course: S.Y.B.A. GEO. II - CLIMATOLOGY				Course Code: BH.UAGEO301	
Teaching Scheme				Evaluation Scheme (Theory)	
Lecture (Periods per week)	Practical (Periods per week per batch)	Tutoriall (Periods per week per batch)	Credits (Theory +Practical)	Internal Continuous Assessment (ICA) (Marks - 40)	Semester End Examination (SEE) (Marks: 60)
03	NIL	NIL	04	40	60
Pre-requisites:					
Course Objectives:					
<ol style="list-style-type: none"> 1. To understand the atmosphere and atmospheric processes. 2. To understand occurrence extreme weather events 3. To know the effects of human activities on climate 					
Course Outcomes:					
<ol style="list-style-type: none"> 1. Student understands structure and composition of atmosphere, and components of weather 2. Student Knows global climatic zones, and global, regional and local wind patterns. 3. Student Understands the extreme weather events and human disturbance in the climatic systems. 4. Awareness is generated to preserve a climatic balance of the earth and to fight against Global climate change 					
Detailed Syllabus: (Per session plan)					
Unit	Description				Periods
1	Introduction to Climatology Definition, nature, scope and branches of climatology - Concept of weather and climate - Composition and structure of atmosphere - Insolation: Vertical and horizontal distribution of temperature				09
2	Air Pressure and Atmospheric Circulation				09

	Air pressure : Influencing factors- Tricellular model, Horizontal distribution of air pressure, Wind : types of winds - Global, regional and local, Upper air circulation- Jet Stream: Origin, characteristics and effects	
3	Humidity and Precipitation Types of humidity- Absolute, Relative and Specific – Condensation and its forms – Precipitation and its types – Global distribution of rainfall	09
4	Climate and Weather Phenomena Tropical and Temperate Cyclones, Anti-cyclones, tornadoes, Global warming and climate change.	09
5	Practical Component Introduction to major weather instruments, Weather signs and symbols, Interpretation of I.M.D. weather maps – Construction of wind rose, climograph and hythergraph	09
	Total	45

Text Books:

Kamble, A. & Karmarkar, D. (2017): An Introduction to Climatology, Tech-Max Publications, Pune.

Shinde, P., Pednekar, H. et al (2018): Geography (Climatology and Oceanography), Sheth Publication, Mumbai.

Reference Books:

Athersn, C.D., (2012): Essentials of Meteorology: An invitation to the Atmosphere, Cengage Learning, Boston

Critchfield, H.J., (1975): General Climatology, Prentice Hall, New Jersey

Emiliani, C. (1992): Planet Earth, Cambridge University Press, U.K.

Singh S., (2018): Climatology, Pravalika Prakashan, Allahabad

Trewartha, G.T., (1980): An Introduction to Climate, McGraw Hill, New York, 5th Edition.