

Lecture Plan							
Name of the college: Government College of Arts, Science and Commerce Sanquelim Goa							
Name of Faculty: Dr Arati Panshekar			Subject: Geography (GED106: Climatology and Oceanography)				
Paper code: GEC-106			Program: TYBA			Division: -	
Academic year: 2024 - 2025			Semester: VI			Total Lectures: 45	
<b>Course Objectives:</b> <div><input type="checkbox"/> To provide students with a foundational understanding of the principles of climatology, focusing on atmospheric processes, weather systems, and climatic patterns at global, regional, and local scales.</div> <div><input type="checkbox"/> To enable students to analyze the interrelationships between climate and human activities, emphasizing the impact of climatic variations on ecosystems, agriculture, and urban planning, and exploring strategies for climate change mitigation and adaptation.</div>							
<b>Expected Course Outcome:</b> <div><input type="checkbox"/> Students will acquire the ability to explain fundamental concepts of climatology, including atmospheric dynamics, weather systems, and global climatic phenomena, fostering a deeper understanding of the Earth's climate system.</div> <div><input type="checkbox"/> Students will be equipped to apply climatological knowledge in practical scenarios, such as analyzing weather patterns, predicting climatic trends, and contributing to sustainable environmental management and planning.</div>							
<b>Student Learning Outcome:</b> <div>1.Students will develop a comprehensive understanding of atmospheric processes and their influence on global and regional climate patterns, enabling them to analyze and interpret climatic data effectively.</div> <div>2. Students will demonstrate the ability to assess the impact of climatic variations on natural and human systems, applying their knowledge to address contemporary issues such as climate change and sustainable development.</div>							
Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignm ent	ICT Tools	Reference books

Decem ber	09-12-2024	14-12-2024	03	<b>Atmospheric Circulation</b>	Mapping, Quiz, Debate	Classroom Teaching	1. Ahrens, C.D. 2012. Essentials of Meteorology: An Invitation to the Atmosphere. 9th Ed, Cengage Learning. 2. Barry R. G. and Carleton A. M., (2001): Synoptic and Dynamic Climatology, Routledge, UK. 3. Barry, R.G, Chorley R.J. 2009. Atmosphere Weather and Climate. 9th Ed, Routledge. 4. Barry R. G. and Corley R. J., (1998): Atmosphere, Weather and Climate, Routledge, New York. 5. Critchfield H. J., (1987): General Climatology, Prentice-Hall of India, New Delhi, (2010 Reprint). 6. Lal, D.S. 2012. Climatology. Sharda Pustak Bhawan. 7. Lutgens F. K., Tarbuck E. J. and Tasa D.,(2009): The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey.
	16-12-2024	21-12-2024	03	Inversion of Temperature			
January	02-01-2025	04-01-2025	03	Forms and processes of Condensation: Clouds formation and types, Cloud burst.			
	06-01-2025	11-01-2025	03	Factors controlling Air Motion and resulting Flow Patterns			
	13-01-2025	18-01-2025	03	Planetary pressure & wind system, local wind system.			
	20-01-2025	25-01-2025	03	<b>Exetreme Events and Climatic Classification-</b> Jet Stream: Origin& Characteristics			
	27-01-2025	01-02-2025	03	Genesis of Monsoon with particular reference to South Asia			
Febraur y	03-02-2025	08-02-2025	03	Origin and Classification of Air –masses& Fronts, Frontogenesis and Frontolysis			
	10-02-2025	15-02-2025	03	Origin and Characteristics of Tropical and Temperate Cyclones			
	17-02-2025	22-02-2025	03	Classification of World Climates: Schemes of Koppen			
	24-02-2025	01-03-2025	03	Classification of World Climates: Schemes of Thornthwaite			
March	03-03-	08-03-2025	03	<b>Oceanography</b>			

	2025						
	10-03-2025	15-03-2025	03	Ocean Salinity & temperature			
	17-03-2025	22-03-2025	03	Waves, Types of Tides			
	24-03-2025	29-03-2025	03	Ocean Currents (Altantic ocean)			
April	31-03-2025	05-04-2025	03	Coral Reefs & their types			
	07-04-2025	11-04-2025	03	Revision			

\* **Assessment**  
**Rubrics**

Compone nt	Max Marks
ISA 1	8
ISA 2	7
Practical	25
Project	-
Semester End Exam	60