



Davao del Sur State College
Brgy. Matti, Digos City, Davao del Sur

Meteorology

Version 1





PREFACE

Meteorology is a fundamental branch of Earth and environmental science that examines the atmosphere and the physical processes responsible for weather, climate, and their interactions with Earth's systems. As climate variability, extreme weather events, and environmental challenges become increasingly significant, developing a sound understanding of meteorological principles has become essential for future science educators. This course equips pre-service teachers with the scientific knowledge and analytical skills necessary to interpret atmospheric phenomena, appreciate the role of meteorology in sustainable development, and promote environmental stewardship within their future classrooms and communities.

This course pack was developed to support the learning outcomes of the Bachelor of Secondary Education major in Science program at Davao del Sur State College. It is organized into four modules that progressively build students' understanding of meteorology—from its fundamental concepts and atmospheric processes to weather systems, climate change, and practical applications in education and disaster risk reduction. Each lesson contains clearly defined learning objectives, engaging classroom and independent activities, analytical questions, comprehensive discussions, application tasks, and assessments designed to foster scientific inquiry, critical thinking, and the application of meteorological concepts to real-world situations, particularly within the Philippine and Asian contexts.

The contents of this instructional material are aligned with current scientific knowledge and draw upon authoritative references, including publications from the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), the World Meteorological Organization (WMO), the Intergovernmental Panel on Climate Change (IPCC), and other recognized academic sources. Contextualized examples, case studies, and contemporary issues have been incorporated to strengthen students' understanding of atmospheric science while emphasizing its relevance to sustainable development, climate resilience, disaster preparedness, and evidence-based environmental decision-making.

It is hoped that this course pack will serve as a valuable learning resource that inspires curiosity, promotes scientific literacy, and prepares future science educators to communicate meteorological concepts effectively. Beyond mastering scientific principles, students are encouraged to cultivate a sense of environmental responsibility and become advocates for climate resilience and sustainable development in their schools, communities, and the broader society.

-The Author



SCI 619

METEOROLOGY

**A COURSEPACK FOR
BSEd SCIENCE STUDENTS**

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