ME3103 - Tropical Meteorology

COURSE LESSON PLAN **STUDY PROGRAM: METEOROLOGY** **FACULTY/SCHOOL: FACULTY OF EARTH SCIENCES AND TECHNOLOGY** **INSTITUT TEKNOLOGI BANDUNG**				
Course Code: ME3103	**Credits: 3**	**Semester: 5**	**Course Type: Compulsory course**	
Course Name	Meteorologi Tropis			
	Tropical Meteorology			
Related Course	-	-	-	
Study Materials	Definition of tropical and equatorial regions and the importance of tropical meteorology.		*Expose*	
	Tropical radiation: radiation laws, insolation intensity, terrestrial radiation, and radiation balance.		*Expose*	
	General circulation, tropical meridional and zonal circulation, Australasian monsoon.		*Expose*	
	Non-seasonal variations of tropical circulation: El Niño/La Niña, Indian Ocean Dipole, Southern Oscillation, and Madden–Julian Oscillation.		*Expose*	
	Diurnal variations of tropical circulation: sea–land breeze, katabatic – anabatik, angin Föhn.		*Expose*	
	Seasonal monsoon variations, annual monsoon cycle, and regional monsoon systems.		*Expose*	
	Tropical atmosphere: evaporation, humidity, condensation, tropical clouds and rainfall.		*Expose*	
	Tropical cyclones: location and formation conditions, cyclone winds, temperature and humidity.		*Expose*	
Learning Outcomes				
Code	**LO**			
PLO-2.1	Able to describe the atmosphere and weather and climate phenomena. (C2)			
PLO-3.2	Able to process large-scale digital weather and climate data to understand weather and climate phenomena. (C3)			
PLO-4.2	Able to interpret and analyze data processing and/or simulation results to obtain new information or knowledge related to meteorological problems. (C4)			
Code	**CO**	**Elements of Course Learning Outcomes (CO)**		
PLO-2.1	1	Students are able to describe the circulation occurring in tropical regions. (C2)		
PLO-3.2	2	Students are able to calculate physical quantities using observational/reanalysis data to describe tropical weather and climate phenomena. (C3)		
PLO-4.2	3	Students are able to analyze various weather and climate phenomena in tropical regions. (C4)		
Learning Methods	Lecture Group Discussion Cooperative Learning Problem-based Learning			
Learning Modalities	Synchronous learning Blended/Online Asynchronous			
Assessment Method	Assessment components: Midterm Examination (35%), Final Examination (40%), Assignments (20%), and Quizzes (5%). Grading Scale: 80–100% A (maximum competency) 65-75% B (good competency) 60-65% BC (satisfactory competency) 55–60% C (minimum competency) 45–54% D (below minimum competency) <45% E (far below minimum competency)			