Module Handbook

Module Name:	Introduction to Meteorology and Climatology
Module Level:	Bachelor
Abbreviation, if applicable:	ME2101
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	3 / Second year
Module coordinator(s):	Drs. Zadrach Ledoufij Dupe, M.Si.
Lecturer(s):	Drs. Zadrach Ledoufij Dupe, M.Si. and Muhammad Ridho Syahputra, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course / ~~Elective Studies~~
Teaching format / class hours per week during the semester:	3 hours lectures
Workload:	3 hours lectures, 3 hours structured activities, 3 hours individual study, 16 weeks per semester, and total 144 hours a semester
Credit Points:	3 c.u
Requirements:	-
Learning outcomes	1. Ability to explain knowledge of the composition, vertical structure, and balance of the Earth's thermal atmosphere. 2. Ability to explain global, meso, and local scale circulation in the Earth's atmosphere. 3. Ability to explain knowledge of climate elements, such as temperature, pressure, humidity, wind, cloud formation, and precipitation. 4. Ability to explain phenomena in the atmosphere, such as fronts, tropical cyclones, thunderstorms, and tornadoes 5. Ability to explain knowledge about climate change and numerical predictions. 6. Ability to derive lapse rate, gravity, Newton, and the ideal gas formulas.
Content:	The Earth movement against the Sun, the heat balance of the atmosphere, the circulation and the horizontal movement of the atmosphere, the air mass, the weather cyclone and the climate, and the escort of the prediction technique.
Study/exam achievements:	Students are considered to be competent and pass if at least get 45% of maximum mark of the exams, homework, and quiz. Final score (NA) is calculated as follow: 20% Homework + 5% Quiz + 35% Exam I + 40% Exam II

	Final index is defined as follow: A: 100>NA≥80 AB: 80>NA≥75 B: 75>NA≥65 BC: 65>NA≥60 C: 60>NA≥55 D: 55>NA≥45 E: NA<45
Forms of Media:	Slides and LCD projectors, blackboards
Literature:	1. Ahrens, C. D., Essentials of Meteorology: An Invitation to the Atmosphere (Sixth Edition), Cengage Learning, 2012 2. Prawirowardoyo, S., Meteorologi, ITB Publishing, Bandung, 1996 Bayong Tjasjono, Klimatologi Umum, ITB Publishing, Bandung, 1999
Notes	The suitability with the Program Learning Outcomes (PLO): PLO-1: Able to use basic science and mathematics as the foundation to understand principles of Meteorology 3. PLO-2: Able to describe the atmosphere and weather/climate phenomena