



UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF SCIENCE EDUCATION

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Bachelor of Education in Science

MODULE HANDBOOK

Module name:	Environmental Physics
Module level, if applicable:	Undergraduate
Code:	IPA6247
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	5 th
Module coordinator:	Dr. Dadan Rosana, M.Si.
Lecturer(s):	Widodo Setyowibowo, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90,67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 SKS (3 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	<p>This course provides competencies for students to understand basic principles and have the knowledge and skills to:</p> <ul style="list-style-type: none">CO1. able to understand the physics of the environment in relation to the macro environment, energy exchange, mass and momentum transport, application of transport lawsCO2. able to understand temperature, humid environment, heat transfer, mass and momentumCO3. able to understand the basics of radiation and animal, human and environmental interactions.CO4. able to work independently or work together in group work (team work) in completing lecture assignments

Content:	This course discusses macro environment, energy exchange, mass and momentum transport, application of transport laws, temperature, humid environment, wind, heat transfer, mass and momentum, radiation, animals and their environment as well as humans and their environment.															
Study / exam achievements:	<p>Attitude assessment is carried out at each meeting by observation and/or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table border="1"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO1, CO2, CO3, CO4,</td> <td>a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam</td> <td>Presentation / written test</td> <td>15% 15% 15% 25% 30%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3, CO4,	a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam	Presentation / written test	15% 15% 15% 25% 30%	Total				100%
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Total				100%												
Forms of media:	Board, LCD Projector, Laptop/Computer															
Literature:	<ol style="list-style-type: none"> G. S. Campbell dan J. M. Norman, An Introduction to Enviromental Biophysics, SiproingerVerlag New York Inc 1977 J. F. Gabriel, Fisika Lingkungan, Hipokretes Jakarta 2001 															

PLO and CO mapping

	PLO											
	Attitude			Knowledge				Spesific Skill				
	PLO1	PLO2	PLO3	PLO1	PLO2	PLO3	PLO4	PLO1	PLO2	PLO3	PLO4	PLO5
CO1					✓		✓					
CO2				✓			✓					
CO3					✓	✓		✓				
CO4				✓					✓			