



UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF PHYSICS EDUCATION
PHYSICS PROGRAM

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Bachelor of Physics

MODULE HANDBOOK

Module name:	Statistics
Module level, if applicable:	Undergraduate
Code:	FMI6201
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	1 st
Module coordinator:	Dr. Djamilah Bondan W.
Lecturer(s):	Dr. Djamilah Bondan W.; Endang L., M.S.; Elly Arliyani, M.Si
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsary 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 self-study per week for 16 weeks.
Credit points:	2 SKS; 3.24 ECTS
Prerequisites course(s):	-
Course Outcomes	After taking this course the students have ability to:

	CO1. Responsible for carrying out individual tasks and group assignments. CO2. Explain and present data properly. CO3. Search for data from sources on the internet and present it using certain software. CO4. Understand the basic concepts, principles procedures/algorithms in describing data. CO5. Calculate the probability of an event. CO6. Understand discrete and continuous random variables and their distribution. CO7. Understand parameter estimation. CO8. Understand hypothesis testing. CO9. Resolve problems related to parameter estimation and hypothesis testing, both manually and using software such as Excel and SPSS.					
Content:	This course contains a discussion of (1) the concepts of statistics and role of statistics; (2) methods for collecting and presenting data; (3) calculation and meaning of measures of central tendency, measures of variation, and measures of location; (3) the basics of probability theory; (5) random variables and their distributions; (6) sampling distribution; (7) parameter estimation; and (8) tests of hypothesis.					
Study / exam achievements:	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. The final mark will be weight as follow: <table><tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr></table>	No	CO	Assessment Object	Assessment Technique	Weight
No	CO	Assessment Object	Assessment Technique	Weight		

	1	CO2 and CO3	Individual assignment and presentation	Observation	10%
	2	CO4 to CO7	a. Class participation (during discussion and working on the board) b. Quiz c. Assignment d. Mid Term examination	Observation Written Test Written Test Written Test	10% 10% 10% 20%
	3	CO8	Assignment	Written Test	15%
	4	CO4 to CO8	Final examination	Written Test	25%
	Total				100%
Forms of media:	Board, LCD Projector, Laptop/Computer				
Literature:	1. Walpole, Ronald.E . 1995. <i>Alih bahasa oleh Bambang Sumantri. Introductory to Statistics</i> . Gramedia, Jakarta. 2. Triola, Mario F. 2004. <i>Elementary Statistics</i> . New York: Addison-Wesley. 3. Weiss, Neil A. 1995. <i>Introductory to Statistics</i> . New York: Addison-Wesley.				

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1			✓		✓				✓
CO2			✓		✓				✓
CO3			✓		✓				✓
CO4			✓		✓				✓
CO5			✓		✓				✓
CO6			✓		✓				✓
CO7			✓		✓				✓
CO8			✓		✓				✓
CO9			✓		✓				✓