



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

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Bachelor of Education in Biology

MODULE HANDBOOK

Module name:	Statistics
Module level, if applicable:	Undergraduate
Code:	MKU6210
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	1 st
Module coordinator:	Djamilah Bondan W., Dr.
Lecturer(s):	Djamilah Bondan W., Dr.; Endang L., M.S.; Elly Arliyani, 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 self-study per week for 16 weeks.
Credit points:	2
Prerequisites course(s):	-
Targeted learning outcomes:	After taking this course, the students have the ability to:

	<p>CO1. Responsible for carrying out individual tasks and group assignments.</p> <p>CO2. Explain and present data properly.</p> <p>CO3. Search for data from sources on the internet and present it using certain software.</p> <p>CO4. Understand the basic concepts, principles, procedures/algorithms in describing data.</p> <p>CO5. Calculate the probability of an event.</p> <p>CO6. Understand discrete and continuous random variables and their distribution.</p> <p>CO7. Understand parameter estimation.</p> <p>CO8. Understand hypothesis testing.</p> <p>CO9. Resolve problems related to parameter estimation and hypothesis testing, both manually and using software such as Excel and SPSS.</p>
<p>Content:</p>	<p>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.</p>
<p>Study/exam achievements:</p>	<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>

	The final mark will be weight as follow:				
	No	CO	Assessment Object	Assessment Technique	Weight
	1	CO2, CO3	Individual assignment and presentation	Observation	10%
	2	CO4, CO5, CO6, 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% 20%
	3	CO8	Assignment	Written test	15%
	4	CO4, CO5, CO6, CO7, CO8	Final Examination	Written test	25%
	Total				100%
Forms of media:	Board, LCD Projector, Laptop/Computer				
Literature:	<ol style="list-style-type: none"> Walpole, Ronald.E . 1995. Alih bahasa oleh Bambang Sumantri. <i>Introductory to Statistics</i>. Gramedia, Jakarta. Triola, Mario F. 2004. <i>Elementary Statistics</i>. New York: Addison-Wesley. 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	PLO10	PLO11	PLO12
CO1									✓			
CO2									✓			
CO3									✓			
CO4									✓			
CO5									✓			
CO6									✓			
CO7									✓			
CO8									✓			
CO9									✓			