

## UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences Mathematics Department

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Undergraduate Program in Statistics

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## **MODULE HANDBOOK**

Module name	Pengantar Statistika Matematik II (Introduction to Mathematical Statistics II)						
Module level, if applicable	Bachelor						
Code, if applicable	MMS -2483						
Subtitle, if applicable							
Courses, if applicable							
Semester(s) in which the	4/second year						
module is taught							
Person responsible for the	Prof. Subanar, Ph.D.						
module							
Lecture(s)	Prof. Subanar, Ph.D.						
Language	Bahasa Indonesia						
Classification within the	compulsory/ <del>elective</del>						
Curriculum							
Teaching format /class	3 hours lecture						
hours per week during the							
semester:							
Workload	3 hours lectures and 6 hours individual study per week, 14 weeks per semester, total						
	126 hours a semester						
Credit points	3						
Requirements	MMS 2420 Introduction to Mathematical Statistics I, MMM-1102 Calculus II						
Module objectives/intended	After completing this course the students have ability to :						
learning outcomes	CO 1. Have a good understanding in the concept of sampling distribution, sufficient						
_	statistic, ancillary, and completeness.						
	CO2. Have an ability to estimate parameter and to evaluate the goodness of an						
	estimator.						
	CO3. Have an ability to do hypothesis testing and its evaluations.						
	CO4. To apply the theory of estimation and hypothesis testing to real data.						
Content	Statistic and sampling distributions, Sufficient statistic, Exponential family, Point						
	estimation and its evaluation, Hypothesis testing, Application to real data						
Study and xamination	The weight of assignments will be as follows:						
requirements and forms of	i. Quiz, homework 15%						
examination	ii. Mid semester exam 40%						
	iii. Final exam 45%						
	Grade scale:						
	A $85 \leq \text{score}$						
	A/B $75 \leq \text{score} < 85$						
	$\begin{array}{c} B \\ B \\ C \\$						
	$B/C$ 50 $\leq$ score $<$ 60						
	$C \qquad 40 \le \text{score} < 50$						
	D $20 \leq \text{score} < 40$						
	E  score < 20						
Media employed							
Reading List	1.Bain,L.J.,Engelhart,M.(1992). Introduction to Probability and Mathematical						

Applications. Pearson Prentice Fian		<ul> <li>Statistics.Duxbury Press.</li> <li>2. Hogg,R.V.,Kean,J.W.,Craig,A.T.(2005).Introduction to Mathematical</li> <li>Statistics.Pearson Prentice Hall.</li> <li>3. Larsen,R.J.,Marx,M.L.(2006).An Introduction to Mathematical Statistics and Its</li> <li>Applications.Pearson Prentice Hall</li> </ul>
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Program Learning Outcomes (PLO)

- PLO-1 have strong basic statistics and mathematics in problem solving analysis.
- PLO-2 have statistical thinking and able to develop.
- PLO-3 have a good ability to utilize technology and statistical software in teaching and research.
- PLO-4 have experience in working on real cases in the field of statistics.
- PLO-5 have a good ability to communicate statistics in writing and oral.
- PLO-6 have ability to further studies, and or lifelong learning.
- PLO-7 have professional ethics and soft skill.

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
CO 1	Х	Х					
CO 2	Х	Х	Х	х		Х	
CO 3	Х	Х	Х	х		Х	
CO 4			Х	Х	Х		

CO and PLO mapping