

UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF SCIENCE EDUCATION

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Bachelor of Education in Sciences

MODULE HANDBOOK

Module name:	Mathematics for Science			
Module level, if applicable:	Undergraduate			
Code:	IPA 6301			
Sub-heading, if applicable:	-			
Classes, if applicable:	-			
Semester:				
Module coordinator:	Eminugroho Ratna Sari, S.Si, M.Sc.			
Lecturer(s):	Eminugroho Ratna Sari, S.Si, M.Sc.			
Language:	Bahasa Indonesia			
Classification within the	Compulsory course			
curriculum:	Compulsory Course			
Teaching format / class	150 minutes lectures and 180 minutes structured activities per			
hours per week during the	week.			
semester:	week.			
	Total workload is 136 hours per semester which consists of			
Workload:	150 minutes lectures, 180 minutes structured activities, and			
	180 minutes individual study per week for 16 weeks.			
Credit points:	3			
Prerequisites course(s):	-			
	After taking this course the students have ability to:			
course outcomes:	 CO1. demonstrate collaborative attitude and independence to do individual or group assigntments CO2. Communicate ideas in solving mathematical problems in writing or verbally CO3. explain numbers, limit, derivatives, integral and transcendent function CO4. understand derivatives and integral application 			
Content:	The course contains discussion on real numbers, function and			

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	how to graph, limit, derivatives, integral and transcendent						
	function. It also discuss how to apply derivatives and integral						
	in sciences problems.						
	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:						
Study / exam achievements:							
1	No	CO	Accessment Object	Accecement	Waight		
	No	CO	Assessment Object	Assessment Technique	Weight		
	No 1	CO 2	Assessment Object presentation	Assessment Technique Observation	Weight 10%		
		CO 2 CO 3,	ŕ	Technique			
		CO 2 CO 3, CO 4,	presentation	Technique Observation	10% 10%		
		CO 2 CO 3,	presentation a. Individual	Technique Observation	10% 10% 10%		
		CO 2 CO 3, CO 4,	presentation a. Individual assessment	Technique Observation	10% 10% 10% 20%		
		CO 2 CO 3, CO 4,	presentation a. Individual assessment b. Group assessment	Technique Observation	10% 10% 10% 20% 25%		
		CO 2 CO 3, CO 4,	presentation a. Individual assessment b. Group assessment c. Quiz	Technique Observation Written test	10% 10% 10% 20% 25% 25%		
	1	CO 2 CO 3, CO 4, CO 5,	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam eFinal exam	Technique Observation Written test Total	10% 10% 10% 20% 25%		
Forms of media:	1	CO 2 CO 3, CO 4, CO 5,	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam	Technique Observation Written test Total	10% 10% 10% 20% 25% 25%		
Forms of media:	1 Boar A. Pu	CO 2 CO 3, CO 4, CO 5,	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam eFinal exam Projector, Laptop/Computin J. dan Varberg, D. 1987. Reserved.	Technique Observation Written test Total uter Kalkulus dan Georg	10% 10% 10% 20% 25% 25% 100%		
	Boar A. Pu	CO 2 CO 3, CO 4, CO 5, Td, LCD F Trcell, Edwinalitis, Jili	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam eFinal exam Projector, Laptop/Computin J. dan Varberg, D. 1987. Kd 1. Edisi kelima. Penterjema	Technique Observation Written test Total Iter Kalkulus dan Georah: I Nyoman Suli	10% 10% 10% 20% 25% 25% 100%		
Forms of media: Literature:	Boar A. Pu	CO 2 CO 3, CO 4, CO 5, Td, LCD F Trcell, Edwinalitis, Jilitartasasmita	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam eFinal exam Projector, Laptop/Computin J. dan Varberg, D. 1987. Kd 1. Edisi kelima. Penterjema, dan Rawuh. Jakarta: Pener	Technique Observation Written test Total Liter Calkulus dan Geonah: I Nyoman Sulibit Erlangga.	10% 10% 10% 20% 25% 25% 100%		
	Boar A. Pu A K B. Pi	CO 2 CO 3, CO 4, CO 5, Td, LCD F Treell, Edwinalitis, Jiliartasasmita	presentation a. Individual assessment b. Group assessment c. Quiz d. Mid exam eFinal exam Projector, Laptop/Computin J. dan Varberg, D. 1987. Rd d 1. Edisi kelima. Penterjema, dan Rawuh. Jakarta: Penerwin J. dan Varberg, D. 1	Technique Observation Written test Total Iter Kalkulus dan Georgah: I Nyoman Sulibit Erlangga. 987. Kalkulus d	10% 10% 20% 25% 25% 100%		
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1				٧				٧		
CO2				٧						
CO3				٧						
CO4				٧						