

UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF MATHEMATICS EDUCATION Jalan Colombo Nomor 1 Yogyakarta 55281 Telepon(0274)565411 Pesawat 217, (0274)565411(TU),fax (0274)548203 Laman :fmipa.uny.ac.id, E-mail :humas_fmipa@uny.ac.id

Bachelor of Science in Mathematics

MODULE HANDBOOK

Module name:	Mathematical Modelling				
Module level, if applicable:	Undergraduate				
Code:	MAT 6322				
Sub-heading,if applicable:	-				
Classes, if applicable:	-				
Semester:	4 th				
Module coordinator:	Fitriana Yuli Saptaningtyas,M.Si.				
Lecturer(s):	Fitriana Yuli Saptaningtyas,M.Si.				
Language:	Bahasa Indonesia				
Classification within the curriculum:	Compulsory course				
Teaching format / class	150 minutes lectures and 180 minutes structured activities per				
hours perweek during the	week				
semester:	WOOK.				
	Total workload is 136 hours per semester which consists of 150				
Workload:	minutes lectures, 180 minutes structured activities, and 180				
	minutes self-study per week for 16 weeks.				
Creditpoints:	3				
Prerequisites course(s):	Differential Equations (MAT6314)				
Course outcomes:	After taking this course the students have ability to:				
	CO1. Demonstrate collaborative attitude and independence in				
	carrying out individual tasks and group assignments				
	CO2. Mastering the concepts and basics of mathematical				
	modelling process				
	CO3. Use Matlab software to solve a simple mathematical				

	modelling of real problem						
	CO4. Make a simple mathematical modelling of real problem						
	The discussion in this course emphasizes the process of						
	modelin	g a case. Theref	fore, the discussion	on material is c	divided		
Content:	into thre	e basic topics: t	erminology, exam	ples of mather	natical		
	models	and mathematica	I modeling project	ts.			
	31 31						
	CO1: Attitude assessment is carried out at each meeting by						
	observa	tion and / or s	elf-assessment t	echniques usir	ng the		
	assump	tion that basical	ly every student	has a good at	ttitude.		
	The stu	dent is given a v	alue of very good	or not good att	titudeif		
	they show it significantlycompared to other students in general.						
	The result of attitude assessment is not a component of the final						
	grades, but as one of therequirements to pass the course.						
	Student	s will pass from	this course if a	t least have a	good		
	attitude.						
Study/exam achievements:							
	The final mark will be weight as follow:						
	I ne fina	I mark will be we	ight as follow:				
	I ne fina	I mark will be we	ight as follow:				
	I ne fina	CO	ight as follow: Assesment Object	Assessment Techniques	Weigh		
	No 1	CO2 and CO 3	ight as follow: Assesment Object a. Individual	Assessment Techniques Written test	Weigh		
	No	CO2 and CO 3	ight as follow: Assesment Object a. Individual assignments b. group	Assessment Techniques Written test	Weigl		
	No	CO2 and CO 3	Assesment Object a. Individual assignments b. group assignments	Assessment Techniques Written test	Weigh		
	No	CO2 and CO 3	ight as follow: Assesment Object a. Individual assignments b. group assignments c. Mid Exam d. Final Exam	Assessment Techniques Written test	Weigh 20% 10% 25% 30%		
	No 2	CO2 and CO 3	ight as follow: Assesment Object a. Individual assignments b. group assignments c. Mid Exam d. Final Exam Presentation and Project	Assessment Techniques Written test Observation	Weigh 20% 10% 25% 30% 15%		
	I ne fina	CO 4	ight as follow: Assesment Object a. Individual assignments b. group assignments c. Mid Exam d. Final Exam Presentation and Project	Assessment Techniques Written test Observation Total	Weigl 20% 10% 25% 30% 15% 100%		
Forms of media:	No 1 2 Board, L	CO 4 CO Projector, La	ight as follow: Assesment Object a. Individual assignments b. group assignments c. Mid Exam d. Final Exam Presentation and Project aptop/Computer	Assessment Techniques Written test Observation Total	Weigh 20% 10% 25% 30% 15% 100%		
Forms of media:	No 1 Board, L 1. Jona	CO 4 CO Projector, La	ight as follow: Assesment Object a. Individual assignments b. group assignments c. Mid Exam d. Final Exam Presentation and Project Aptop/Computer 11), Head First	Assessment Techniques Written test Observation Total	Weigh 20% 10% 25% 30% 15% 100%		
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3	B. Bender, Edward A. An Introduction to Mathematical						
	Modeling. 1978. John Willey & Sons. Canada						
4	. Tuharto. Diktat KuliahPengantar Model Matematika. 2001.						
	JurusanPendidikanMatematika FMIPA UNY.						
5	5. Giordano, Frank R. Weir, Maurice D. A First Course in						
	Mathematical Modelling 3rd Ed. 2003. Thomson Learning.						
	USA						

PLO and CO mapping

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