



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Mathematics Department

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Doctoral Program in Mathematics

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MODULE HANDBOOK
Doctoral in Mathematics

Module name:	Topics in Applied Mathematics A/B/C															
Module level, if applicable:	Doctoral Program															
Code, if applicable:	MMM7308/MMM7309/MMM7310															
Semester(s) in which the module is taught:	I (first year)															
Person responsible for the module:	Dr. Fajar Adi Kusumo, M.Si.															
Lecturer(s):	<i>All eligible lecturers</i>															
Language:	Bahasa Indonesia															
Relation to curriculum:	Doctoral Degree in Mathematics, Compulsory, 1 st and 2 nd semester															
Credit points:	3															
Type of teaching, contact hours:	3x50 minutes lectures, 3x50 minutes structured activities.															
Workload:	<ul style="list-style-type: none"> • 3x50 minutes lectures, • 3x50 minutes structured activities, • 3x50 minutes individual study, • In 16 weeks per semester (including mid-term and final examinations). • Total: 144x50 minutes per semester. 															
Requirements according to the examination regulations:	NONE															
Recommended prerequisites:	Before taking this course, the students must have a good understanding the mathematical concept related to the topics.															
Module objectives/intended learning outcomes:	<p>After completing this course, the students should have:</p> <ul style="list-style-type: none"> • CO 1. Ability to combine one or more mathematical theories to solve the problems in applied mathematics. • CO 2. Ability to use new methods to solve the problems in applied mathematics. • CO 3. Ability to do research in applied mathematics. 															
Content:	<p>In this course, the students do some academic activities under supervision by the lecturer(s). The academic activities are provided by the literature studies for understanding one or more mathematical theories from the literatures. <i>The topics and also the syllabus will be decided related to the research topics of the student.</i></p>															
Study and examination requirements and forms of examination:	<p>The final mark will be weighted as follows:</p> <table border="1"> <thead> <tr> <th>No</th> <th>Assessment methods (components, activities)</th> <th>Weight (percentage)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Final Examination</td> <td>35%</td> </tr> <tr> <td>2</td> <td>Mid-Term Examination</td> <td>30%</td> </tr> <tr> <td>3</td> <td>Projects</td> <td>25%</td> </tr> <tr> <td>4</td> <td>Peer Assessment/Quiz</td> <td>10%</td> </tr> </tbody> </table> <p>Final grade will be determined as follows:</p> <p>Grade Criteria</p> <p>A $95 \leq \text{final mark} \leq 100$</p>	No	Assessment methods (components, activities)	Weight (percentage)	1	Final Examination	35%	2	Mid-Term Examination	30%	3	Projects	25%	4	Peer Assessment/Quiz	10%
No	Assessment methods (components, activities)	Weight (percentage)														
1	Final Examination	35%														
2	Mid-Term Examination	30%														
3	Projects	25%														
4	Peer Assessment/Quiz	10%														

	A-	$90 \leq \text{final mark} < 95$
	A/B	$85 \leq \text{final mark} < 90$
	B+	$78 \leq \text{final mark} < 85$
	B	$70 \leq \text{final mark} < 78$
	B-	$65 \leq \text{final mark} < 70$
	B/C	$60 \leq \text{final mark} < 65$
	C+	$54 \leq \text{final mark} < 60$
	C	$48 \leq \text{final mark} < 54$
	C-	$40 \leq \text{final mark} < 48$
	C/D	$35 \leq \text{final mark} < 40$
	D+	$30 \leq \text{final mark} < 35$
	D	$25 \leq \text{final mark} < 30$
	E	< 25
Media employed:	White/Black Board, LCD Projector, Laptop/Computer	
Reading List:	<i>The reading list will be announced by the lecturer on the first meeting.</i>	

Mapping of The COs and PLOs

	PLO – 1 S2 Mat	PLO – 2 S2 Mat	PLO – 3 S2 Mat	PLO – 4 S2 Mat	PLO – 5 S2 Mat	PLO – 6 S2 Mat
CO 1	√	√				
CO 2		√	√			
CO 3	√		√		√	