



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Mathematics

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Doctor in Mathematics

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MODULE HANDBOOK

Module Name	Algebra Topic 2: Applied Algebra and its development
Module level, if applicable	Doctor
Code, if applicable	MMM 7210
Subtitle, if applicable	-
Courses, if applicable	Algebra Topic 2: Applied Algebra and its development
Semester(s) in which the module is taught	First year
Person responsible for the module	Chair of Algebra Research Group
Lecturer(s)	<ul style="list-style-type: none">• Prof. Dr. Indah Emilia Wijayanti• Uha Isnaini, Ph.D.
Language	Indonesia
Relation to curriculum	Elective courses
Teaching methods	Lecture, presentation
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: Contact hours: 150 minutes lectures per week, 180 minutes structured activities per week, 180 hours individual study, 16 weeks per semester (including mid-term and final examinations), in total 136 hours per semester.
Credit points	3

Required and recommended prerequisites for joining the module	Before taking this course, students must master the introduction to algebraic structure, introduction to linear algebra, and elementary number theory.												
Module objectives/intended learning outcomes	<p>Upon successful completion of this course, students are able to:</p> <ul style="list-style-type: none"> • CO 1: clarify various concepts, philosophies, definitions and important properties of advanced theory in algebra which will be studied in this dissertation research support course • CO 2: prove the concepts of advanced theory in algebra which will be related to the topics studied in this dissertation research support course, • CO 3: make a conjecture on the continuation of the problem on the concept of advanced theory in algebra which will be related to topic studied in the dissertation research support course • CO 4: develop special knowledge related to algebraic concepts which will be related to the topics to be studied in dissertation research supporting courses 												
Content	<ul style="list-style-type: none"> • This course provides material to students about some topics in abstract algebra such as groups, rings, fields, modules, vector spaces, lattices, and algebras. • Topics will be taken from the field which will be related to topic studied in the dissertation research support course • Topics and syllabus will be adapted to the material needs and topics of students in research supporting the dissertation. 												
Examination forms	Lectures, a compulsory project, compulsory assignments.												
Study and examination requirements	<p>The final mark will be weighted as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">No</th> <th style="text-align: left;">Assessment methods (components, activities)</th> <th style="text-align: right;">Weight (percentage)</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">1</td> <td style="text-align: left;">Final Examination</td> <td style="text-align: right;">20 – 30 %</td> </tr> <tr> <td style="text-align: left;">2</td> <td style="text-align: left;">Mid-Term Examination</td> <td style="text-align: right;">20 – 30 %</td> </tr> <tr> <td style="text-align: left;">3</td> <td style="text-align: left;">Project</td> <td style="text-align: right;">50 %</td> </tr> </tbody> </table> <p>To pass the course, the minimum grade is B.</p>	No	Assessment methods (components, activities)	Weight (percentage)	1	Final Examination	20 – 30 %	2	Mid-Term Examination	20 – 30 %	3	Project	50 %
No	Assessment methods (components, activities)	Weight (percentage)											
1	Final Examination	20 – 30 %											
2	Mid-Term Examination	20 – 30 %											
3	Project	50 %											
Media employed	White Board, LCD Projector, Laptop/Computer												

Reading list	<ul style="list-style-type: none">Decided every year depend on the lecturer's expertise.
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CO-PLO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
CO-1						
CO-2						
CO-3						
CO-4						
CO-5						
CO-6						

Compilation Date :

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