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Doctor in Mathematics

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MODULE HANDBOOK

Module Name	Topics in Algebra 1 : Advanced Abstract Algebra and Its Development
Module level, if applicable	Doctoral
Code, if applicable	MMM
Subtitle, if applicable	-
Courses, if applicable	Topik Aljabar 1 : Aljabar Abstrak Lanjut dan Perkembangannya
Semester(s) in which the module is taught	1st or 2nd Semester
Person responsible for the module	Head of Algebra Research Group
Lecturer(s)	Indah Emilia Wijayanti, Sri Wahyuni, Budi Surodjo, Ari Suparwanto
Language	Bahasa Indonesia
Relation to curriculum	Elective course
Teaching methods	Lecture, project.
Workload (incl. contact hours, self-study hours)	Total workload is 136 hours per semester, which consists of 150 minutes lectures per week for 14 weeks, 180 minutes structured activities per week, 180 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam.
Credit points	3
Required and recommended prerequisites for joining the module	Students should have prior knowledge such as group theory, ring theory and linear algebra.

Module objectives/intended learning outcomes	Upon successful completion, students CO1 : know how to describe concepts, philosophy, definitions and important properties of advanced algebra related to his/her research; CO2 : are be able to prove important properties of advanced algebra related to his/her research; CO3 : are be able to make conjectures to further subjects related to his/her research; CO4 : know how to expand or improve special prior knowledge related to his/her research.
Content	This course gives material about advanced abstract algebra, such as tensor product, comodules, semigroups etc. which support his/her research. Topics and syllabus depend on the research.
Examination forms	Oral presentation, essay.
Study and examination requirements	The final mark will be computed from a proportional weight of assignments, mid examination and final examination. The final mark will be weighted as follows: No Assessment methods (components, activities) Weight (percentage) 1 Final Examination 20 - 30% 2 Mid-Term Examination 20 - 30% 3 Class Activities: Quiz, Homework, etc. 50 - 55% Minimum final mark to pass : B
Media employed	Whiteboard, screen, laptop.
Reading list	1. Wisbauer, R., Foundations of Module and Ring Theory, Gordon and Breach Science Publisher, Philadelphia, 1991. 2. Wisbauer, R., Modules and Algebras : Bimodule Structure on Group Actions and Algebras, Addison Wesley Longman, Essex, 1996. 3. Karpilovsky, G., Induced Modules over Group Algebras, North Holland, Amsterdam, 2012. 4. Brezinski, T., Wisbauer, R., Corings and Comodules, Cambridge University Press, 2003.

CO-PLO Mapping

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

CO 4		v	v		v	

Compilation Date : 12 August 2022

Modified Date : 12 August 2022