UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION
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Bachelor of Science in Mathematics **MODULE HANDBOOK**

Module name:	Abstract Algebra
Module level,if applicable:	Undergraduate
Code:	MAT6311
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	3rd
Module coordinator:	Musthofa, M.Sc.
Lecturer(s):	1. Dr. Agus Maman Abadi 2. Dr. Karyati, Musthofa, M.Sc.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hoursperweekduring the semester:	150 minutes lectures and 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.
Creditpoints:	3
Prerequisites course(s):	Number Theory (MAT6205)
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. Show the truth of a problem related to the group and its properties through mathematical verification

<table>
<tr><td></td><td>CO3. Mastering group concepts, group properties and group homomorphism
CO4. Solve mathematical problems using group concepts and group properties</td></tr>
<tr><td>Content:</td><td>This course contains basic concepts of group, subgroup, permutation group, cyclic group, coset, Lagrange theorem, normal subgroup, factor group, group homomorphism and the main group homomorphism theorem.</td></tr>
<tr><td>Study/exam achievements:</td><td>CO1: 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:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO2, CO3 and CO4</td><td>a. Individual Assignment
b. Group Assignment
c. Quiz
d. Mid
e. Final Exam</td><td>Presentation / written test</td><td>15%
15%
15%
25%
30%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table>
</td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>1. Gallian, J.A.. 2010. Contemporary Abstract Algebra. Seventh Edition. Eddison Wesley Publishing Company.
2. Malik, D.S., Mordeson, J.M., Sen, M.K.. 1997. Fundamentals of Abstract Algebra. Singapore: McGraw-Hill Companies, Inc.
3. Fraleigh, J.B.. 2006. A First Course in Abstract Algebra. Seventh Edition. New York: Addison-Wesley Publishing Company.
4. Herstein, I.N..1996. Abstract Algebra. Third Edition. Upper</td></tr>
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	Saddle River: Prentice-Hall Int. Inc. 5. Stinson, D.R. 2006. Crptography, Theory And Practice. Third Edition. New York: Chapman and Hall/CRC.

PLO and CO mapping

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