Module designation	*Introduction to Group Theory*
Semester(s) in which the module is taught	*3*
Person responsible for the module	*Dr. Karyati S.Si., M.Si.*
Language	*Bahasa Indonesia*
Relation to curriculum	*Compulsory course*
Teaching methods	*150 minutes lectures and 180 minutes structured activities per week.*
Workload (incl. contact hours, self-study hours)	*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.*
Credit points	*3*
Required and recommended prerequisites for joining the module	*MAT6301 - Logic and Sets*
Module objectives/intended learning outcomes	*CO 1. Demonstrate a collaborative attitude and independence in carrying out individual and group tasks related to groups and their properties.* *CO 2. Master the basic concepts of groups, basic properties of groups, special groups, and group homomorphisms.* *CO 3. Able to prove other group properties that are developments of basic group properties* *CO 4. Solve mathematical problems using group concepts and properties*
Content	*Basic concepts of groups and subgroups and their properties, Cyclic Groups, Permutation Groups, Cosets, Lagrange's Theorem, Normal Subgroups, Factor Groups, Group Homomorphisms, Fundamental Theorem of Group Homomorphisms, Applications of Group Theory*
Examination forms	*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.*

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<td>Study and examination requirements</td>
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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>CO 1</td><td>a. Presentation
b. Discussion</td><td>Observation</td><td>5%
10%</td></tr>
<tr><td>2</td><td>CO 2, CO 3, CO 4</td><td>a. Individual assignment
b. Group assignment
c. Quiz
d. Midterm
e. Final test</td><td>Written</td><td>10%
10%
20%
20%
25%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
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<td>Reading list</td>
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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. . Stinson, D.R. 2006. Crptography, Theory And Practice. Third Edition. New York: Chapman and Hall/CRC.

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