Module designation	*Graph Theory*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Emut,M.Si.*
Language	*Bahasa Indonesia*
Relation to curriculum	*Compulsory course*
Teaching methods	*100 minutes lectures and 100 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	*MAT6309 - Discrete Mathematics*
Module objectives/intended learning outcomes	*After taking this course the students have ability to:* *CO1. Appreciate the work and opinions of other groups in submitting ideas in writing or verbally* *CO2. Demonstrate collaborative attitude and independence in carrying out independent tasks and group assignments* *CO3. Communicate ideas in solving mathematical problems in writing or verbally* *CO4. Explain the basic concepts of graphtheory and apply them to solve related problems.* *CO5. Proving properties, lemmas, and theorems to be applied in logical reasoning*
Content	*This course study about the concepts in graph theory that is graph definition, graphical presentation technique, graph types, connectedness, tree graph, generator tree graph, algorithm to determine minimal plant grass tree, planarity and technique to determine planarity of a graph, and decomposition in the graph.*
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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<tr>
<td>Reading list</td>
<td>

1. Robin J. Wilson &Jhon J. Watkin. 1990. Graphs, An Introductory Approach. New York: John Wiley & Sons. Inc.
2. Mardiyono, S. 2010. Teori Graf. Jakarta : Universitas Terbuka
3. Liu, CI. 1985. Element of Discrete Mathematics, Second Edition. MacGraw-Hill, Inc.

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