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| Module designation | *Logic and Set Theory* |
| Semester(s) in which the module is taught | *1* |
| Person responsible for the module | *Ilham Rizkianto, M.Sc* |
| 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 | - |
| Module objectives/intended learning outcomes | *After taking this course the students have ability to:*<br>*CO1. Respecting other people's views, opinions,and original ideas.*<br>*CO2. Understand concepts in mathematical logic.*<br>*CO3. Determine the relationship between sets and results of operations between sets.*<br>*CO4. Proving the properties of functions, functions, and composition of functions.*<br>*CO5. Understand finite and infinite sets, countable, and denumerable sets* |
| Content | *This course discusses about statements, Truth tables, tautology, contradiction, contingency, quantifier, arguments, definition of a set, operations on a set, relations, equivalence relations, functions, cardinality of a set.* |
| Examination forms | *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.* |

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<tr>
<td>Study and examination requirements</td>
<td>
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.<br><br>
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-CO 5</td><td>a. Individual assignment<br>b. Group assignment<br>c. Quiz<br>d. Mid Exam<br>e. Final Exam</td><td>Written test</td><td>15%<br>15%<br>10%<br>30%<br>30%</td></tr>
<tr><td colspan="3"></td><td>Total</td><td>100%</td></tr>
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<td>Reading list</td>
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1. Sukirman, 2006. Logika dan Himpunan. Yogyakarta: Hanggar Kreator
2. Tarski, Alfred. 1994. Introduction to Logic and to the Methodology of Deductive Sciences.New York : Oxford University Press.

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