Module Description

Module name:	Calculus
Module level, if applicable	-
Code, if applicable	105D5213
Subtitle, if applicable	-
Courses, if applicable	Calculus
Semester(s) in which the module is taught	1
Person responsible for the module	Jayanti Mandasari Andi Munawarah Abduh, S.T., M.Eng
Lecturer	1. Dr. Eng. Abdul Rachman Rasyid, ST., M.Si; 2. Gafar Lakatupa, S.T., M.Eng; 3. Laode Muhammad Asfan, S.T., M.T; 4. Jayanti Mandasari Andi Munawarah Abduh, S.T., M.Eng.
Language	Bahasa Indonesia
Relation to curriculum	This course is one of a compulsory courses which is available in the first year/ first semester. Calculus is a multitude of engineering mathematics courses in which passing this class will enable you to move on to higher-level math courses
Type of teaching, contact hours	The method used on calculus subject is self-directed learning method. A quiz will be given every meeting as soon as after the student have received course materials. The subject also have two kind of test which is given in the middle and the last semester.
Workload	This course consists of 3 credits in one meeting/ week (1 credit consists of 50 minutes of face-to-face, 60 minutes of assignments/tutorials, and 60 minutes of self-study).
Credit points	3
Requirements according to the examination regulations	The number of student attendance is at least 80% of the total meeting.
Recommended prerequisites	-
Module objectives/intended learning outcomes	CLO 1. Students is able to understand mathematical concepts regarding numbers, functions, limits, derivatives and integrals (to support ILO-1, PI-1/3); CLO 2. Students is able to use the concepts of limits, derivatives and integrals in solving mathematical problems (to support ILO-1, PI-1/3); The following table is mapping of the ILO and CLO in this course:

<table>
<tr><td></td><td>
<table>
<tr><td></td><td>ILO 1</td></tr>
<tr><td>CLO 1</td><td>x</td></tr>
<tr><td>CLO 2</td><td>x</td></tr>
</table>
</td></tr>
<tr><td>The content and the relation to the studio works</td><td>This course discusses about mathematical basic which are numbers, functions, limits, derivatives and integrals. These materials are beneficial in order to support the mapping studio as well as other`s studio classess which are served in the following semester. For instance, mathematical basic especially numbers and functions are significantly used in measuring space of the line in first`s studio assignment and counting the population projections in the data collection studio as the second studio`s assignment.
Additionally, limits, derivatives and integrals materials are required to support a compulsory course in the data collection studio which is namely urban and regional economics especially in using some mathematic method and formulas.</td></tr>
<tr><td>Study and examination requirements and forms of examination</td><td>This course will be graded as follows:
1. Midterms Exam (30%)
2. Final Exam (35%)
3. Quiz (15%)
4. Task (20%)
<table>
<tr><th>Percentage of Achievement</th><th>Grade</th><th>Conversion Value</th></tr>
<tr><td>85 – 100</td><td>A</td><td>4.00</td></tr>
<tr><td>80 - <85</td><td>A-</td><td>3.75</td></tr>
<tr><td>75 - < 80</td><td>B+</td><td>3.5</td></tr>
<tr><td>70 - < 75</td><td>B</td><td>3.0</td></tr>
<tr><td>65 - < 70</td><td>B-</td><td>2.75</td></tr>
<tr><td>60 - < 65</td><td>C+</td><td>2.5</td></tr>
<tr><td>50 - < 60</td><td>C</td><td>2.00</td></tr>
<tr><td>40 - < 50</td><td>D</td><td>1.00</td></tr>
<tr><td>< 40</td><td>E</td><td>0.00</td></tr>
</table>
</td></tr>
<tr><td>Media employed</td><td>SIKOLA, Zoom</td></tr>
<tr><td>Reading list</td><td>1. E. J Purcell, Dale Varberg (Alih bahasa : I Nyoman Susila, Ph.D dkk), Kalkulus, Jilid 1 dan 2, Erlangga, 2003
2. James Stewart (Alih Bahasa : Drs I Nyoman Susila, MSc dan Hendra Gunawan, Ph.D), Kaluklus, Jilid 1 dan 2, Erlangga, 2000</td></tr>
</table>