Module designation	*Real Analysis*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Kus Prihantoso Krisnawan, 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	*MAT6318 Introduction to Real Analysis*
Module objectives/intended learning outcomes	*After taking this course the students have ability to:* *CO 1. Respecting other people's views, opinions,and original ideas* *CO 2. Understanding definitions, theorems, and some characteristics in mathematics using critical and systematic thinking in a manner individually or groups* *CO 3. Communicating, in writing or verbally,ideas to understand or solve mathematical problems.* *CO 4. Explaining the meaning or definition of terms and the intent of the theorems or properties in mathematics* *CO 5. Using related definitions and theorems to prove other properties or theorems.*

<table>
<tr><td>Content</td><td>This course discusses the subject of differentiation, sequences and series of functions, and Riemanian Integral.The topics in differential are derivative and intermediate value property, the mean value theorem, and a continues nowhere-differentiable function.The subject of sequences and series of functions include;piecewise and uniform convergence, series, power series, and Taylor series. Finally, the subject of Riemanian Integral consist of the definition of Riemanian Integral, Integrating functions with discontinuities, properties of integral, the fundamental theorem of calculus, and Lebesgue's criterion for Riemann Integrability.</td></tr>
<tr><td>Examination forms</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.</td></tr>
<tr><td>Study and examination requirements</td><td>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></tr>
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Reading list	1. *Abbot, S. 2010. Understanding Analysis. New York: Springer ScienceBusiness Media, Inc.* 2. *Bartle,R.G.& Sherbet D.R. 2000. Introduction to Real Analysis. Third Edition. New York: Jhon Wiley&Sons.* 3. *Brannan, D.A. 2006. A First Course in Mathematical Analysis. Cambridge: Cambridge University Press.* 4. *Davidson, K.R. &Donsig, A.P. 2010. Real Analysis with Applications. Upper Sadle River: Prentice-Hall, Inc.* 5. *Walter Rudin, 2000. Principles of Mathematical Analysis, Third Edition. McGraw-Hill, Inc.*