

Module designation	<i>Differential Equation</i>
Semester(s) in which the module is taught	3
Person responsible for the module	<i>Eminugroho Ratna Sari, M.Sc.</i>
Language	<i>Bahasa Indonesia</i>
Relation to curriculum	<i>Compulsory course</i>
Teaching methods	<i>150 minutes lectures and 180 minutes structured activities per week.</i>
Workload (incl. contact hours, self-study hours)	<i>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.</i>
Credit points	3
Required and recommended prerequisites for joining the module	<i>MAT6305 Integral Calculus</i>
Module objectives/intended learning outcomes	<p><i>After taking this course the students have ability to:</i></p> <p><i>CO1. Demonstrate collaborative attitude and independence to do individual or group assignments</i></p> <p><i>CO2. Communicate ideas in solving mathematical problems in writing or verbally</i></p> <p><i>CO3. Explain the concepts and how to solve differential equations in both one or higher order, both homogeneous or non-homogeneous</i></p> <p><i>CO4. Formulate a mathematical model regarding differential equation problems</i></p>
Content	<i>The course discusses about definition and solution of differential equation, exact solution of first order equation, method of grouping, integrating factor, separable equation, homogeneous equation, linear equation, Bernoulli equation, special integrating factor, special transformation, homogeneous equation with constant coefficients, undetermined coefficients method, variation of parameters, and Cauchy-Euler equation.</i>
Examination forms	<i>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.</i>

Study and examination requirements	<p><i>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.</i></p> <p><i>The final mark will be weight as follow:</i></p> <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. Presentat ion b. Discussio n</td><td>Observation</td><td>5% 10%</td></tr><tr><td>2</td><td>CO 2, CO 3, CO 4</td><td>a. Individual assignme nt b. Group assignme nt 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></table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO 1	a. Presentat ion b. Discussio n	Observation	5% 10%	2	CO 2, CO 3, CO 4	a. Individual assignme nt b. Group assignme nt c. Quiz d. Midterm e. Final test	Written	10% 10% 20% 20% 25%	Total				100%
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Reading list	<p><i>Names of textbooks, articles, etc.</i></p>																				