Module Handbook

Module Name:	Partial Differential Equations
Module Level:	Bachelor (S1)
Abbreviation, if applicable:	PDE
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	6/3
Module Coordinator(s):	Dr. Abadi
Lecturer(s):	Dr. Abadi Rudianto Artiono, M.Si. Dimas A. Maulana, M.Si.
Language:	Bahasa Indonesia
Relation to Curriculum:	Compulsory course/ ~~elective studies~~
Type of Teaching, contact hours:	Classical, small project, 3x50 minutes/week
Workload:	15 weeks/semester once a week classical meeting of 3 x 50 minutes consultation hour for project (tentative) Total : 15x3x50 minutes = 2.250 minutes (plus consultation hour)
Credit Point:	3
Requirements:	Ordinary Differential Equations, Multivariable Calculus
Learning Goals:	*Knowledge* 1. Identify and explain the problems which are given and then analyze the situation in order to choose appropriate method to solve. 2. Master all solution methods for solving PDE. *Skill* 1. Skillful in solving PDE problems by using various solution methods. *Competency* 1. Solving PDE problems both analytically and numerically
Content:	This course contains fundamental concepts in partial differential equations theory, i.e. 1st order PDE, 2nd order PDE, wave equation, heat equation. Students are expected to master the solution methods of PDE, and applying the methods to solve PDE and its application problems, analytically and numerically.

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<tr><td>Soft skill attributes:</td><td></td></tr>
<tr><td>Study/ Exam achievements:</td><td>Students is declared to pass the course with expected learning outcomes if achieve the final score (NA) that consists of four components (participation (P), Sub-summative Test (USS), Assignment (T), and Summative Test (US)), minimum 56 or C.

Formula:
$$NA = \frac{(2 \times P) + (3 \times T) + (2 \times USS) + (3 \times US)}{10}$$
Ket:
P: Participation
T: Assignment
USS: Sub-summative Test
US: Summative Test
NA: Final Score

Score conversion

<table>
<tr><th>Huruf</th><th>Angka</th><th>Interval</th></tr>
<tr><td>A</td><td>4,00</td><td>$85 \leq A \leq 100$</td></tr>
<tr><td>A-</td><td>3,75</td><td>$80 \leq A^{-} < 85$</td></tr>
<tr><td>B+</td><td>3,50</td><td>$75 \leq B^{+} < 80$</td></tr>
<tr><td>B</td><td>3,00</td><td>$70 \leq B < 75$</td></tr>
<tr><td>B-</td><td>2,75</td><td>$65 \leq B^{-} < 70$</td></tr>
<tr><td>C+</td><td>2,50</td><td>$60 \leq C^{+} < 65$</td></tr>
<tr><td>C</td><td>2,00</td><td>$55 \leq C < 60$</td></tr>
<tr><td>D</td><td>1,00</td><td>$40 \leq D < 55$</td></tr>
<tr><td>E</td><td>0,00</td><td>$0 \leq E < 40$</td></tr>
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</td></tr>
<tr><td>Form or Media</td><td>Powepoint presentation, LCD, Whiteboard, Matlab, Maple</td></tr>
<tr><td>Literatures:</td><td>[1] Dennemeyer, R. 1968. Introduction to Partial Differential Equations and Boundary Value Problems. New York: McGraw-Hill.

[2] Strauss, W.A. 1992. Partial Differential Equations, an</td></tr>
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	Introduction. New York: John Wiley and Son. [3] Pinchover Y. and Rubinstein J. 2005. *An Introduction to Partial Differential Equations. Cambridge: Cambridge University Press.* [4] Soehardjo. 2004. Persamaan Diferensial Parsial. Surabaya: Uranus.
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