

Course	Course Name	: Partial and Ordinary Differential Equations
	Code	: EE184304
	Credits	: 3
	Semester	: III

Description of Course

Course of Ordinary Differential Equations and Partial discusses the concepts and methods of solving Ordinary and Partial Differential Equations, Integral Vector (Integral lines and Surfaces), and their use in solving electrical engineering problems.

Learning Outcomes

KNOWLEDGE

(P01) Mastering the concepts and principles of science and engineering mathematics, and implementing them in the form of procedures for analysis and design in power systems, control systems, multimedia telecommunications, or electronics.

SPECIFIC SKILL

(KK01) Able to formulate engineering problems in power systems, control systems, multimedia telecommunications, or electronics.

GENERAL SKILL

(KU08) Able to develop themselves and compete in national and international level

ATTITUDE

(S11) Trying his/her best to achieve perfect results.

Course Learning Outcomes

KNOWLEDGE

Mastering concepts, procedures and principles of problem solving in the Ordinary and Partial Differential Equations forms, Integral Vector (Lines and Surfaces integration).

SPECIFIC SKILL

Able to formulate problems in the form of Ordinary and Partial Differential Equations, Integral Vector (Lines and Surfaces integration).

GENERAL SKILL

Able to carry out an evaluation process to get a solution to the problem in the form of Ordinary and Partial Differential Equations, Integral Vector (Lines and Surfaces integration).

ATTITUDE

Demonstrating attitude of responsibility on work in his/her field of expertise independently

Main Subjects

1. Ordinary Differential Equation (ODE 1, ODE 2, and higher).
2. Differential Equation System
3. Fourier and Integral Fourier series
4. Partial Differential Equation
5. Integral Vector (Lines and Surface Integral)

Reference(s)

- [1] Kreyszig, Erwin : "Advanced Engineering Mathematics, 10th Edition", John Wiley & Sons, Inc, 2011
- [2] Robinson, James C, " An Introduction to Ordinary Differential Equation", Cambridge University Press, 2004.

Prerequisite(s)

EE184201 Linear Algebra and Discrete Structures
