

Syllabus: Differential Equations

1. Description:

This course is concerned with the basic computation of "Differential Equation (DE)". We will focus on "how to solve DE". There are main topics that we will cover throughout the course:

- (a) First-Order Differential Equations
- (b) Second-Order Linear Differential Equations
- (c) Higher-Order Linear Differential Equations
- (d) Series Solutions of Second-Order Linear Equations
- (e) The Laplace Transform
- (f) Systems of First-Order Linear Equations
- (g) Nonlinear Differential Equations and Stability

2. Topic prerequisites:

Calculus and Linear Algebra.

3. Course information:

- (a) Lecture: Every Tue. and Thu. 13:15-14:30
- (b) Room: Math. Building
- (c) Textbook: Boyce and DiPrima: "Elementary Differential Equations and Boundary Value Problems," 11th Edition
- (d) Teacher: Chih-Chiang Huang, E-mail: cchuang@ccu.edu.tw, Math Building 435

4. Grading

Grade (100%) = Midterm exam (40%) + Final exam (40%) + Quiz (20%)