



TH01011 - ADVANCED MATHEMATICS

Credits: Theory 3 - Practice 09



EXPECTED LEARNING OUTCOMES

Indicators	By completing this course, students can:	ELO of Program
Knowledge		
K1	Understand the concepts: Matrix, inverse matrix, system of linear equations, multivariate functions, differential equation.	ELO1
K2	Apply the operations with matrices	
K3	Apply the properties of determinant and inverse matrix to calculate the determinant, inverse matrix of a given matrix and to solve a Cramer system of linear equations.	
Skills		
K4	Solve a general system of linear equations.	ELO5
K5	Calculating derivative, differential function of one variable; solve some problems applying derivatives; Be able to perform some basic problems of integrals and their applications	
K6	Calculation with functions of many variables: partial, total differential of functions of many variables, find the extremes of functions of two variables; Solve some forms of 1 differential equations	
Competence		
K9	Working independently and self-study	

Content

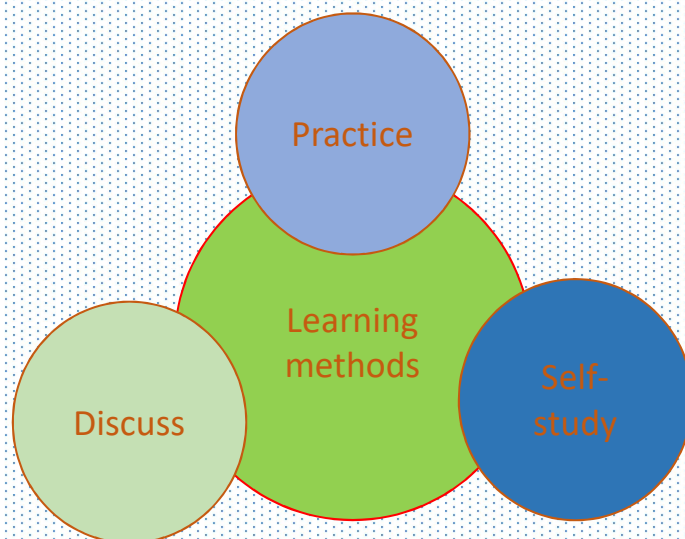
- Chapter 1: Matrix and system of linear equations
- Chapter 2: Differential and integral calculus
- Chapter 3: Differential of a multivariate function
- Chapter 4: Differential equations

Students' mission

- Attend at least 80% of lessons
- Prepare for lectures, read reference books, do homework before class
- Take the midterm exam and the final exam

Assessment methods

- Grade: 10
- Including:
 - Attendance: 10%
 - Midterm exam: 30%
 - Final exam: 60%



PIC

Huu Du Nguyen
Email: nhdu@vnua.edu.vn

Teachers

Teachers in Math Department