TH01011 - ADVANCED MATHEMATICS

Credits: Theory 3 - Practice 09

EXPECTED LEARNING OUTCOMES

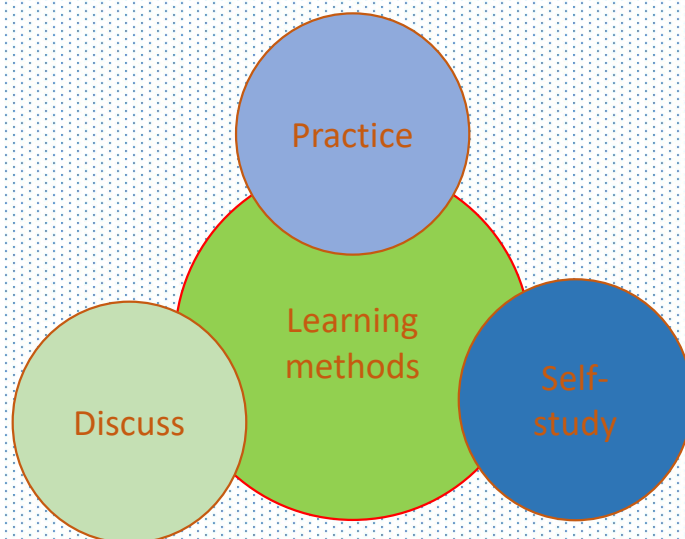| Indicators	By completing this course, students can:	ELO of Program
Knowledge		
K1	Understand the concepts: Matrix, inverse matrix, system of linear equations, multivariate functions, differential equation.	**ELO1**
K2	Apply the operations with matrices	
K3	Apply the properties of determinant and inverse 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
- Chapter4: 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

1. Grade: 10
2. Including:
- Attendence: 10%
- Midtermexam: 30%
- Final exam: 60%

Learning methods

Practice

Discuss

Self-study

PIC

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Teachers

Teachers in Math Department