Study Program: Mathematics

Type and level of studies: Bachelor studies, VIII semester

Course name: Integral equations

Lecturer: Milena M. Lekić

Status: Elective

ECTS: 7

Attendance Prerequisites: none

Course aims

The students will gain basic knowledge necessary for understanding the basics of modern mathematics.

Course outcome

The students have grasped the fundamental notions.

Course content

Theoretical part:

Basic terms. Linear integral equations. Basic types of linear integral equations. Iterative approximation method (iterative method). Iterative core method. Resolvent. Fredholm's integral equation of the second kind with a degenerate nucleus. Laplace transform. Solving integral equations by Laplace transform. Some Voltaire's integral and integrodifferential equations. Application of integral equations.

Practical part: *exercises, other forms of teaching, student research work*

Tasks and problems tackled during exercises follow the theoretical classes in terms of content.

Literature

1. Р. Николић, Збирка решених задатака из интегралних једначина, Приштина 1996
2. Д. Бојовић, Б. Поповић, М. Станић, Збирка решених задатака из парцијалних и интегралних једначина, Крагујевац, 2006.
3. С. Бајовић, Парцијалне и интегралне једначине, Приштина, 1983.
4. С. Јанковић, П. Протић, К. Стевановић-Хедрих, Парцијалне једначине и интегралне једначине са применом у инжењерству, Ниш, 1998.

Number of active classes				Other classes
Lectures: 2	Practical classes: 2	Other forms of teaching:	Students' research work	

Teaching methods

Lectures, laboratory work, consultations, term-tests and written examination.

Assessment (maximum 100 points)

Course assignments	**points**	Final exam	**points**
activity during lectures	**10**	written exam	**30**
practical classes		oral exam	**30**
term test(s)	**30 (15+5)**	.....	
seminar(s)			
Total	**40**		**60**