Study program: Engineering Management

Type and level of studies: Master studies (second level of studies)

Course unit: Mathematical Methods in Management

Teacher in charge: Nada Damljanović, Dragan Djurčić

Language of instruction: English

ECTS: 6

Prerequisites: -

Semester: Summer

Course unit objective

Acquiring the necessary knowledge of higher mathematics and preparing students for research work in the field of engineering management.

Learning outcomes of Course unit

At the end of this course students are qualified to use mathematical ideas, concepts and methods for practical application in scientific research in the field of engineering management.

Course unit contents

Theoretical classes

The theory of functional series, analysis of real multivariable functions, differential equations of first and higher order, financial mathematics, integral calculus, economic dynamics, application of the dynamics of market prices, application of the Solow's model of economic growth, application of the analysis of inflation and unemployment.

Practical classes

Solving practical problems which implement exposed theoretical concepts and principles.

Literature

[1] R. Barnett, M. Ziegler, K. Byleen, Applied mathematics for business, economics, life sciences, and social sciences, MATE, 2006.

[2] A. Chiang, Fundamental methods of mathematical economics, MATE, 1994.

Number of active teaching hours				**Other classes**
Lectures: 2	Practice: 2	Other forms of classes	Independent work:	

Teaching methods Lessons, consultations, study and research work

Examination methods (maximum 100 points)

Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	**-**	oral examination	**20**
Practical classes/tests	**20**	written examination	**40**
Seminars/homework	**20**	.....	
Project	**-**		
Other			

Grading system

Grade	**No. of points**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**less than 50**	Failing