

---

**BASIC INFORMATION:**

Organisational Unit	FACULTY OF BUSINESS ECONOMICS	
Chair	Department of Mathematics and Applied Mathematics	
Course/modul		
Code	2.09.11.003.	<b>Basics of system theory and management</b>
ETCS credits	5	

**COURSE TYPE:**

Functional Area	Common ground
Level of Abstraction	Middle
Course Type - Obligation	Mandatory

**COURSE REGISTRATION:**

Scientific Field	2.	Technical sciences
Scientific Area	2.09.	Computers and IT
Narrow Scientific Field	2.09.11.	Other computing areas

**COURSE DESCRIPTION:**

Educational goals	Acquisition of basic knowledge in the field of systems theory. Knowledge from this scientific discipline is needed to contribute to the development of a scientific view of the world that will enable macro, meso, at the micro and personal level they are structured by principled attitudes (policies), ways (strategies), systems and subsystems (work processes in the sphere of culture, spirituality, civilization, politics, security, social sphere, technology, economic activity, information and communication connections and relationships, financial transactions, educational activities, etc.), to available resources as input sizes to the most rational, pragmatic, effective and transform more efficiently into output quantities in the form of products, services, goals and interests.
Competences/ educational outcomes:	Successful completion of the subject and mastering the material, that is, by adopting the modules of knowledge and skills planned by the curriculum for this subject the student will get to know the basic characteristics of real systems, he will be able to use different systems observes from the aspect of the general theory of systems, such as functioning of economic and business system.

Course content	DEFINING THE TERMS OF THEORY, SYSTEM AND MANAGEMENT. SYSTEM ELEMENTS. MAN, MACHINE, SYSTEM. CHARACTERISTICS AND FUNCTIONS OF THE SYSTEM. CLASSIFICATION OF SYSTEMS. CYBERNET SYSTEM. MODELS AND METHODS OF ARTIFICIAL SYSTEMS. SYSTEM MODELING. THE FUTURE OF SYSTEMS THEORY.
----------------	---

### COURSE METRICS:

ETCS	Teaching activities (hours)					Individual work		TOTAL Hours of work	
	Contact lessons		Exercises and trainings	Seminar and stud. papers	Pedagogical workshops	Profess. practice	Individual. and group learning		Source research
	R	E							
5	20	10	30				86	4	150

### ACCESS CONDITION

None

### COURSE METHODOLOGY

Lectures, auditory exercises and consultations.

### TEACHING LANGUAGES

English

### STUDENT WORK EVALUATION

No.	Type of Evaluation	Partial/ Final	Elective/ Mandatory	Percentage of participation
01	Participation in activities at lectures and exercises	pre-exam obligation	Mandatory	20 %
02	Exam activities - partial test (problem test)	partial	Optional	35 %
03	Exam activities - final test (problem test, written exam)	final	Mandatory	45 %

### LITERATURE

No.	Author	Publication Title	Publisher	Edition Year
1.	B. S. Blanchard	System Engineering Management	Wiley	2016
2.				