

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Control Systems		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Linear Control Systems		
Lecturer (for lectures)		Veselić R. Boban		
Lecturer/associate (for exercises)		Mitić M. Vladimir		
Lecturer/associate (for OFE)		Mitić M. Vladimir, Todorović Z. Darko, Sibinović D. Vladimir		
Number of ECTS	6	Course status (obligatory/elective)	Obligatory	
Prerequisites				
Course objectives	The purpose of this course is to give the theoretical and practical knowledge related to the linear continuous-time control systems.			
Course outcomes	Acquired theoretical and practical knowledge that is necessary for understanding of topics of other subjects in later years of study.			
Course outline				
Theoretical teaching	Definition, importance and examples of linear feedback control systems. Structure and components of linear control systems. Mathematical models, characteristics and responses of components and systems. The importance of feedback. Block diagrams and signal flow graphs in feedback control systems. State-space representation and characteristics of linear control systems. Stability analysis techniques. Characterization of the performance of linear control systems and criteria for synthesis. Classical methods for the linear control systems analysis and synthesis.			
Practical teaching (exercises, OFE, study and research)	Solving specific problems during exercises and laboratory work facilitate the students to master the methodological units that are studied through theoretical classes.			
Textbooks/references				
1	G. F. Franklin, J. D. Powell, and A. Emami-Naeini, Feedback Control of Dynamic Systems, Prentice-Hall, 2010.			
2	R.C. Dorf, and R.H. Bishop, Modern Control Systems, Prentice-Hall, 2004.			
3				
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	2	1	0	0
Teaching methods	Lectures; Exercises; Laboratory work; Consultations.			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam	Points	
Activity during lectures	5	Written exam	20	
Exercises	15	Oral exam	20	
Colloquia	40			
Projects	0			