

Specification for the book of courses

Study program		Electronics and Microsystems	
Module		Electronics and Microsystems	
Type and level of studies		Master studies	
The name of the course		Study and Research Work	
Lecturer (for lectures)			
Lecturer/associate (for exercises)			
Lecturer/associate (for OFE)			
Number of ECTS	5	Course status (obligatory/elective)	Obligatory
Prerequisites			
Course objectives			
Application of basic, theoretical-methodological, scientific-professional and applied knowledge and methods to solve concrete problems. The student studies the problem, its structure and complexity, and on the basis of the conducted analysis, concludes the possible ways of solving it. By studying literature students are introduced to methods and engineering practice for solving similar tasks.			
Course outcomes			
Training students to independently apply previously acquired knowledge from different areas they have studied, in order to examine the structure of the given problem and to analyze it in a systematic way, with the final goal to make conclusions about possible solutions. Through self-use of literature, students expand their knowledge by studying various methods and papers related to similar issues. In this way, students develop the ability to conduct analyzes and to identify problems within the given issues. By the practical application of acquired knowledge, students develop the ability to see the place and role of engineers in the selected area, as well as the need for cooperation with other professions and for the teamwork.			
Course outline			
Theoretical teaching			
It is formed individually in accordance with the needs of a concrete graduate-master work, its complexity and structure. According to his affinities and preferences, the student chooses the field of study work or the subject teacher from the list of teachers in the study program, which defines the specific task. The student studies professional literature, professional and scientific papers dealing with similar topics, performs analyzes in order to find a solution for a concrete task, or perform certain experiments in the laboratory. The study includes active monitoring of primary knowledge, organization and performance of experiments, numerical simulations and statistical data processing, preparation of seminar work from the narrow scientific-scientific field, which is the topic of independent research work.			
Practical teaching (exercises, OFE, study and research)			
Textbooks/references			
1			
2			
3			
4			
5			
Number of classes of active education per week during semester/trimester/year			
Lectures	Exercises	OFE	Study and research work
			10
Teaching methods			
Grade (maximum number of points 100)			
Pre-exam duties		Points	Final exam
Activity during lectures			Written exam
Exercises			Oral exam
			50
Colloquia			
Projects		50	