

Discipline	MICROPROCESSOR SYSTEMS-PROJECT code: 45b winter semester		
Specialty	Computer Science and Technologies		
ECTS credits: 2	Form of assessment: ongoing assessment		
Lecturer	Assoc. Prof. Zheyno Zheyrov, PhD Room 407 TB Phone: +359 52 383 628 E-mail: zh_viv@tu-varna.bg		
Department	Computer Science and Engineering		
Faculty	Faculty of Computing and Automation		
<p>Learning objectives:</p> <p>The course project on "Microprocessor system" is an individual form of training. The course assignments are individual and group assignments.</p> <p>The subject studies in detail the architecture of the most common 32-bit and 64-bit. microprocessors and design of microprocessor system built with them. The methods and means for realization of computing systems are discussed. System architecture, real and virtual memory, interfaces and interaction between the components, the organization and management of the inputs and outputs, as well as the means to support the construction of multiprocessor systems, their components, interfaces and their programming in Assembler.</p> <p>The course project is based on the preceding disciplines "Microprocessors", "Microprocessor systems", "Computer Organization", "Computer Architectures" and others.</p>			
CONTENTS:			
	Training Area	Hours lectures	Hours seminar exercises
	Building of the microprocessor systems for specific purposes and the practical usage of low-level programming language (Assembler).		14
	The students learn and practice construct system structures, memory management, programming in protected mode, in multitasking mode and tasks management, programming the controllers and I/O devices, writing interrupt routines and testing some optimization techniques and specific instructions.		14
	Documentation. Defense of project.		2
	TOTAL: 30 h	0	30