Discipline	Electronic Design Automation code: 5231 Semester – /winter/		
Specialty	Electronics		
ECTS credits: **7**	Form of assessment: Exam		
Lecturer	Associate Professor, PhD Dimitar Kovachev Room: 415E Phone: +359 52 383 340 E-mail: edimitrowa55@gmail.com		
Department	Department of Electronics and Microelectronics		
Faculty	Faculty of Computer Sciences and Automation		

<div align="center">Learning objectives</div>

The discipline "Electronic Design Automation" aims to develop students' skills in the area of automated design of electrical schematics and PCB boards. The curriculum covers questions regarding algorithms, used in modern systems for automated design, examples of their implementation in some contemporary systems and technologies regarding the automation of the design of electronic devices. Students achieve practical skills in creating computer models and libraries of electrical components and design of electrical schematics using CAD.

<div align="center">CONTENTS:</div>

Training Area	Hours lectures	Hours seminar exercises

Design automation. Systems for Electronic Design Automation(EDA).	3	3
Schematic entry. Schematic editors. Graphical specification of system behaviour.	3	3
Hardware design languages (with VHDL examples)	3	3
Circuits verification. Analog, digital and mixed signal simulation.	3	3
Analog, digital, and mixed signal circuits verification.	3	3
Design for Testability.	3	3
Application Specific Integrated Circuits.	3	3
Hardware/software co-design.	3	3
Programmable logic devices.	3	3
Printed circuit board (PCB) design automation.PCB industrial standards.	3	3
TOTAL: 60 h	30	30