

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Computer-Aided Design of Electromechanical Devices		Code 1010321371010324797
Field of study Electrical Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 4 / 7
Elective path/specialty Electrical Systems in Mechatronics	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: - Classes: - Laboratory: 15 Project/seminars: 15		No. of credits 3
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 3 100% 3 100%
Responsible for subject / lecturer: dr inż. Krzysztof Kowalski email: Krzysztof.Kowalski@put.poznan.pl tel. +486652595 Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of electrical engineering, electrical machines and system Windows.
2	Skills	Basics of engineering structures at a general level. Ability to effectively self-education in a field related to the chosen field of study.
3	Social competencies	The need to broaden their competence, willingness to work together as a team.
Assumptions and objectives of the course: The ability to correctly formulate the task of synthesis and analysis of the technical object, the implementation of selected stages of the design process. Acquisition of computer skills of technical design representation in two-and three-dimensional systems.		
Study outcomes and reference to the educational results for a field of study		
Knowledge: 1. Basic knowledge of the graphic representation of the structure, knows the rules of the projection, creating sections, dimensioning engineering applications - [K_W17 ++]		
Skills: 1. He can formulate an algorithm uses a programming language and related software tools used in electrical engineering - [K_U04 +] 2. The use of properly chosen development environments, simulators and software tools to support the design serving to simulate, design and analysis of simple electrical circuits. - [K_U13 ++]		
Social competencies: 1. Ability to act in an entrepreneurial manner in the area of ??electrical engineering - [K_K04 ++]		
Assessment methods of study outcomes		

<p>Project:</p> <ul style="list-style-type: none"> - checking and favoring the knowledge necessary to carry out the set of problems - evaluation based on the current progress of the projects in the form of computer projects - continuous evaluation for each course - rewarding gain skills students met the principles and methods. <p>Get extra points for the activity in the classroom, and in particular for:</p> <ul style="list-style-type: none"> - propose to discuss further aspects of the subject; - the effectiveness of the application of the knowledge gained during solving the given problem; - comments related to the improvement of teaching materials. 		
Course description		
<p>Analysis and synthesis of a technical object. The implementation of the project tasks using AutoCAD system. The use of computer systems in the design of electromagnetic actuators. Issues two-dimensional and three-dimensional structures in computer recording technology.</p>		
<p>Basic bibliography:</p> <ol style="list-style-type: none"> 1. Dąbrowski M. Projektowanie maszyn elektrycznych prądu przemiennego, WNT, Warszawa 1994. 2. Chlebus E. ? Techniki komputerowe CAx w inżynierii produkcji, WNT, Warszawa 2000. 3. AUTOCAD system documentation. 		
<p>Additional bibliography:</p> <ol style="list-style-type: none"> 1. Documentation CAD programs available on the web pages. 		
Result of average student's workload		
Activity	Time (working hours)	
1. participation in laboratory classes	15	
2. participation in project activities	15	
3. participation in the consultation	18	
4. project preparation activities	22	
5. participation in the passing tests	7	
Student's workload		
Source of workload	hours	ECTS
Total workload	77	3
Contact hours	48	2
Practical activities	55	3