STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Computer-Aided Design of Electromechanical Devices**	Code **1010321361010324797**	
Field of study **Electrical Engineering**	Profile of study (general academic, practical) **(brak)**	Year /Semester **3 / 6**
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: **30** Classes: **-** Laboratory: **-** Project/seminars: **-**	No. of credits **2**

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. Understanding the stages of the design process. The ability to identify and formulate design task. Acquisition of computer skills mapping of simple construction.

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

Lecture

- assess the knowledge and skills listed on the written exam of a problematic,

- continuous evaluation for each course (rewarding activity and quality perception).

Get extra points for the activity in the classroom, and in particular for:

- 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

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 structures in computer recording technology.

Basic bibliography:

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.

Additional bibliography:

1. Documentation CAD programs available on the web pages.

Result of average student's workload

Activity	Time (working hours)
1. participation in lectures	30
2. participation in the consultation	10
3. exam preparation	20
4. participation in the passing tests	5

Student's workload

Source of workload	hours	ECTS
Total workload	55	2
Contact hours	45	1
Practical activities	45	1