_
-
Ω
σ
$\Box$
Ν
0
٥
ψ.
⊐
۵
•
₹
₹
`
>
~
.7
α
t
_

STUDY MODULE DESCRIPTION FORM					
	Code 010321271010321021				
Profile of study (general academic, practical)	Year /Semester				
(brak)	4/7				
Subject offered in:	Course (compulsory, elective)				
polish	obligatory				
Form of study (full-time,part-time)					
full-time					
	No. of credits				
Project/seminars:	2 12				
(university-wide, from another fie	eld)				
(brak) (br					
	ECTS distribution (number and %)				
	12 100%				
	12 100%				
	Profile of study (general academic, practical) (brak) Subject offered in: polish Form of study (full-time,part-time) full-ti  Project/seminars: (university-wide, from another fie				

# Responsible for subject / lecturer:

Prof. dr hab. inż. Ryszard Nawrowski email: ryszard.nawrowski@put.poznan.pl tel. 616652788 Elektryczny

ul. Piotrowo 3A, 60-965 Poznań

# Prerequisites in terms of knowledge, skills and social competencies:

1	Knowledge	Basic information of subjects taught for first degree of full-time studies, majoring in electrical engineering and specialty of electric an information systems in industry and vehicles.
2	Skills	Measurements and calculations of basic electrical and non-electrical quantities, writing simple computer programs, designing and construction of simple circuits or electrical installations and effective self-study in chosen specialty and academic field.
3	Social competencies	Verbal communication and team work, awareness of the need to expand their knowledge and skills.

# Assumptions and objectives of the course:

Understanding the issues related to the collection of necessary materials for research and the principles of preparation of Engineer?s thesis.

### Study outcomes and reference to the educational results for a field of study

# Knowledge:

1. student knows the basics of copyright and intellectual property rights, know how to use patent information resources -  $[K_W21+++]$ 

## Skills:

- 1. student is able to prepare and present a short presentation on the tasks associated with electrical engineering [K\_U08+++]
- 2. student is able to compare different design solutions in the field of basic issues in the field of electrical engineering due to selected performance and economic criteria [K\_U12+++]

#### Social competencies:

- 1. student is aware of his own work, he can obey the rules of work in a team, is able to prepare a report of the results of own work and teamwork [K\_K03+]
- 2. student is aware of the social role of the university of technology graduate, and especially understands the need for the formulation and communication to the public, information and opinions on technical achievements and other aspects of electrical engineering [K\_U05+++]

## Assessment methods of study outcomes

# **Faculty of Electrical Engineering**

#### Seminar:

- assess the knowledge and skills needed to carry out the Engineer?s thesis topic,
- an assessment based on the presentation of the results of realized works,
- evaluate the effectiveness of the application of knowledge in problem solving,
- continuous evaluation for each class: student activities, increase their knowledge and skills.

### **Course description**

The initial term diploma theses topics. Determine the objectives of the Engineer's theses topics. Discussion of selected issues of the diploma theses. Discussion of the principles of editing and formatting of the Engineer's thesis. Discussion of the principles related with the preparation of a bibliography, formatting, drawings, diagrams, photographs and tables.

# Basic bibliography:

1. Bibliography of Engineer?s thesis range recommended by the promoter.

### Additional bibliography:

1. Bibliography of Engineer?s thesis searched by student.

## Result of average student's workload

Activity	Time (working hours)
1. participation in seminar classes	30
2. participation in the consultation	40
3. preparation for seminar classes	4
4. determine the tasks within the scope of Engineer?s thesis	25
5. prepare a presentation on the progress made in the implementation of Engineer?s thesis	4
6. perform research for Engineer?s thesis	151
7. Engineer?s thesis writing	70

## Student's workload

Source of workload	hours	ECTS
Total workload	324	12
Contact hours	95	4
Practical activities	151	6