STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Diploma seminar		**1010325331010320081**
Field of study	Profile of study (general academic, practical)	Year /Semester
Electrical Engineering	**(brak)**	**2 / 3**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Electrical and Computer Systems in	**Polish**	**obligatory**
Cycle of study:	Form of study (full-time,part-time)	
Second-cycle studies	**part-time**	

No. of hours	No. of credits
Lecture: **-** Classes: **-** Laboratory: **-** Project/seminars: **9**	**5**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**5 100%**
Technical sciences	**5 100%**

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 second 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 Master thesis.

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

Knowledge:

1. student has the knowledge on developments and achievements in the field of electrical engineering - [K_W04++]
2. student has knowledge in designing of electrical devices and systems, taking into account their influence on the environment - [K_W05+]

Skills:

1. student is able to obtain information from various sources, can make their interpretation and evaluation, as well as draw conclusions and formulate and justify opinions - [K_U01+]
2. student is able to prepare and give a presentation about the project or research tasks and lead a discussion about the presentation - [K_U04++]
3. students knows English sufficiently to communicate in professional matters, reading comprehension, as well as prepare and deliver a short presentation - [K_U05+]
4. student is able - during solving the tasks posed to him - to integrate knowledge from various fields and sources, including non-technical aspects (including economic aspects and legal aspects - [K_U15++, K_U16+]
5. student is able to assess the suitability and ability to exploit new technical and technological achievements for the design and manufacture of electrical equipment and systems - [K_U19+]

Social competencies:

1. student is able to think and act in a creative and enterprising - [K_K01+]

Assessment methods of study outcomes

Seminar:
- assess the knowledge and skills needed to carry out the thesis,
- 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 master diploma theses topics. Determine the objectives of the Master's diploma theses topics. Discussion of selected issues of the diploma theses. Discussion of the principles of editing and formatting of the Master 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	9
2. participation in the consultation	20
3. preparation for seminar classes	3
4. determine the tasks within the scope of Master thesis	11
5. prepare a presentation on the progress made in the implementation of Master thesis	10
6. literature search for Master thesis	10
7. supply of technical facilities (equipment, software, components for research, etc.)	15
8. the construction of the test stand	45

Student’s workload

Source of workload	hours	ECTS
Total workload	123	5
Contact hours	40	2
Practical activities	94	3