Name of the module/subject       Code 101031439101         Field of study       Profile of study (general academic, practical) (brak)       Year /Semester         Electrical Engineering       Subject offered in: Polish       Course (compu oblig)         Electrical Engineering       Subject offered in: Polish       Course (compu oblig)         Cycle of study:       First-cycle studies       Project/seminars:       18         No. of hours	5/9 Isory, elective atory		
Electrical Engineering       (general academic, practical) (brak)       Course (compu- oblig)         Elective path/specialty Networks and Electric Power Systems       Subject offered in: Polish       Course (compu- oblig)         Cycle of study:       First-cycle studies       part-time         No. of hours       part-time       No. of credits         Lecture:       -       Classes:       -       Project/seminars:       18         Status of the course in the study program (Basic, major, other) (brak)       (university-wide, from another field) (brak)       ECTS distributiti and %)         Education areas and fields of science and art       ECTS distributiti and %)       I3       100%         Responsible for subject / lecturer: prof. dr hab. inz. Józef Lorenc email: jozef.lorenc@put.poznan.pl tel.61 6652279 Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań       I       I         Prerequisites in terms of knowledge, skills and social competencies:       1       Knowledge       He/she has knowledge in frame of metrology of measurements, development tren knows principles of author rights.         2       Skills       He/she can use available literature in printed and electronic version	5/9 Isory, elective atory		
Elective path/specialty       Subject offered in: Polish       Course (computed oblights)         Cycle of study:       Form of study (full-time, part-time)       part-time         No. of hours       part-time       No. of credits         Lecture:       -       Classes:       -       Laboratory:       -       Project/seminars:       18       1         Status of the course in the study program (Basic, major, other)       (university-wide, from another field)       (brak)       ECTS distributic         Education areas and fields of science and art       ECTS distributic       and %)       13       100%         Responsible for subject / lecturer:       prof. dr hab. inż. Józef Lorenc       email: jozef.lorenc@put.poznan.pl       14       10         ul. Piotrowo 3A 60-965 Poznań       Prerequisites in terms of knowledge, skills and social competencies:       1       Knowledge       He/she has knowledge in frame of metrology of measurements, development tren knows principles of author rights.         2       Skills       He/she can use available literature in printed and electronic version	lsory, elective atory 3		
Networks and Electric Power Systems       Polish       oblig         Cycle of study:       Form of study (full-time,part-time)       Form of study (full-time,part-time)         No. of hours       part-time       No. of credits         Lecture:       -       Classes:       -       Laboratory:       -       Project/seminars:       18       1         Status of the course in the study program (Basic, major, other)       (university-wide, from another field)       (brak)       13       100%         Education areas and fields of science and art       ECTS distributid and %)       13       100%         Responsible for subject / lecturer:       prof. dr hab. inż. Józef Lorenc       ECTS distributid and %)       13       100%         Prerequisites in terms of knowledge, skills and social competencies:       I       Knowledge       He/she has knowledge in frame of metrology of measurements, development tren knows principles of author rights.         2       Skills       He/she can use available literature in printed and electronic version	atory 3		
Cycle of study:       Form of study (full-time,part-time)         First-cycle studies       part-time         No. of hours	3		
First-cycle studies       part-time         No. of hours       No. of credits         Lecture:       - Classes:       - Laboratory:       - Project/seminars:       18       1         Status of the course in the study program (Basic, major, other)       (university-wide, from another field)       (brak)         Education areas and fields of science and art       (brak)       ECTS distribution and %)       13       100%         Responsible for subject / lecturer:       prof. dr hab. inż. Józef Lorenc       and %)       13       100%         Prerequisites in terms of knowledge, skills and social competencies:       1       Knowledge       He/she has knowledge in frame of metrology of measurements, development tren knows principles of author rights.         2       Skills       He/she can use available literature in printed and electronic version			
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Lecture:       Classes:       Laboratory:       Project/seminars:       18       1         Status of the course in the study program (Basic, major, other)       (university-wide, from another field)       (brak)         Image: the course in the study program (Basic, major, other)       (university-wide, from another field)       Education another field)         Education areas and fields of science and art       (brak)       (brak)       ECTS distribution and %)         technical sciences       13       100%         Responsible for subject / lecturer:         prof. dr hab. inż. Józef Lorenc       email: jozef.lorenc@put.poznan.pl       13       100%         Prerequisites in terms of knowledge, skills and social competencies:         1       Knowledge       He/she has knowledge in frame of metrology of measurements, development trenk nows principles of author rights.         2       Skills       He/she can use available literature in printed and electronic version			
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 distributic and %)         technical sciences       13 100%         Responsible for subject / lecturer:       prof. dr hab. inž. Józef Lorenc email: jozef. lorenc@put.poznan.pl tel. 61 6652279         Wydział Elektryczny ul. Piotrowo 3A 60-965 Poznań       Prerequisites in terms of knowledge, skills and social competencies:         1       Knowledge         He/she has knowledge in frame of metrology of measurements, development tren knows principles of author rights.         2       Skills         He/she can use available literature in printed and electronic version	n (number		
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Knowledge       knows principles of author rights.         Knowledge       knows principles of author rights.         Knowledge       He/she can use available literature in printed and electronic version         Seciel       He/she bas consciousness of consequenced of own work results.			
2 Skills	He/she has knowledge in frame of metrology of measurements, development trends and knows principles of author rights.		
3 Social He/she has consciousness of consequenced of own work results.			
Social He/she has consciousness of consequenced of own work results.			
Assumptions and objectives of the course:			
Presentation of investigation results, Analysis and conclusions of problems analysed in diploma thesis.			
Study outcomes and reference to the educational results for a field of stud	v		
Knowledge:	-		
<ol> <li>He/she knows detailed principles of application of author rights during preparation diploma thesis in frame of r electric power engineering - [K_W21+++]</li> </ol>	-		
Skills:	-		
1. He/she can prepare and present short presentation abort task in frame of electric power engineering - [K_U 2. He/she can compare various Project solution in range of fundamental problems in frame of electric power eng	-		
K_U12+++] Social competencies:	network and		
1. He/she is ready to conform to principles of work in teem in frame of electric power engineering K_K03+ - [K_]	network and		
	D8+++] ineering -		
Assessment methods of study outcomes	D8+++] ineering -		
Assessment of prepared presentations of individual parts of diploma thesis in form of slides (results. Analysis of	D8+++] ineering -		

Assessment of prepared presentations of individual parts of diploma thesis in form of slides (results, Analysis of results, conclusions)

## Course description

1. Presentation of investigation results and Analysis of chosen problem

2. Formulate logical conclusions, which are results of investigations and analysis

## **Basic bibliography:**

- 1. Description of genesis, aim, thesis, and range of investigations and problems analysis
- 2. Polish-English dictionary
- 3. Specialist literature (books, conferences proceedings)
- 4. Lexicons, encyclopedias, technical guides

## Additional bibliography:

1. Very well prepared diploma thesis

## Result of average student's workload

Activity	Time (working hours)	
1. Participation in seminar		18
2. Analysis of literature		40
3. Laboratory and results analysis		160
4. Consulation with supervisor		70
5. Preparation of presentation		10
6. Preparation to diploma exam		10
7. Participation in diploma exam		1
Student's wo	orkload	
Source of workload	hours	ECTS
Total workload	309	13
Contact hours	89	5
Practical activities	178	8