

## DESCRIPTION OF THE COURSES

- Course code: ELR2572
- Course title: Planning, designing and building electrical power network
- Language of the lecturer: Polish

<i>Course form</i>	<i>Lecture</i>	<i>Classes</i>	<i>Laboratory</i>	<i>Project</i>	<i>Seminar</i>
<i>Number of hours/week*</i>	1			1	
<i>Number of hours/semester*</i>	11			11	
<i>Form of the course completion</i>	test			<i>M a k i n g project</i>	
<b>ECTS credits</b>					
<b>Total Student's Workload</b>					

- Level of the course (basic/advanced): advanced
- Prerequisites: Power systems
- Name, first name and degree of the lecturer/supervisor: Artur Wilczynski, **PhD, DSc**
- Names, first names and degrees of the team's members: Mieczysław Biniek, **PhD.**, Robert Łukomski, **PhD**
- Year: 2..... Semester: 3.
- Type of the course (obligatory/optional): optional
- Aims of the course (effects of the course): effects of the course is to learn of the selected problems of the planning and designing of the power systems
- Form of the teaching (traditional/e-learning): traditional
- Course description: The principles of the overhead and cable electric lines designing. The methods of the power and energy estimation. Characteristic of the different network configurations. The principles of line construction, different elements choice. New tendency in designing and electric network construction.
- Lecture:

<i>Particular lectures contents</i>	<i>Number of hours</i>
1. Electric network characteristic. Supply system.	2
2. The mains of the development planning of the power system. The methods of the power and energy demands. Principles and methods of the power electric network designing.	2
3. Schemes of supply. Power system security	2
4. Power line construction – supporting structure, conductors, insulators, equipment.	2
5. The mechanical calculations of the overhead lines.	2
6. Test	1

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:
- Project – the contents: Overhead lines designing. Distribution network designing.
- Basic literature:

1. K. Kinsner, A. Serwin, M. Sobierajski, A. Wilczyński, Sieci elektroenergetyczne, Wyd. Politechniki Wrocławskiej, Wrocław 1993.

2. Wytyczne programowania rozwoju elektroenergetycznych sieci przesyłowych 400, 220 kV, Kraków 1990.

3. J. Marzecki, Rozdzielcze sieci elektroenergetyczne, PWN. Warszawa 2001.

- Additional literature:

Normy dotyczące projektowania i budowy linii elektroenergetycznych

- Conditions of the course acceptance/credition:

Positive note of test and positive note of project.

\* - depending on a system of studies