

DESCRIPTION OF THE COURSES

- Course code: ELR2404
- Course title: **Electroenergetics in industrial plants**
- 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>	2				
<i>Number of hours/semester*</i>	30				
<i>Form of the course completion</i>	examine				
<i>ECTS credits</i>	3				
<i>Total Student's Workload</i>	90				

- Level of the course (basic/advanced): advanced
- Prerequisites: Credited Electrical devices
- Name, first name and degree of the lecturer/supervisor: Zbigniew Wróblewski, PhD, DSc
- Names, first names and degrees of the team's members:
Bogumiła Wnukowska, PhD
Marek Kott
- Year: 4 Semester: 8
- Type of the course (obligatory/optional): obligatory
- Aims of the course (effects of the course): Recognize general rules energetic economy in industry and rational electric energy utilization.
- Form of the teaching (traditional/e-learning): traditional
- Course description:
The kinds of industrial customers. Courses electroenergetic discharges. Designation foreseeing electroenergetic discharges. Criteria of selection the whole electroenergetic structure and its parts. The quality of electric energy in industrial objects. Technic and economical effects reduction of quality energy. Economic aspects consumption reactive power in industrial plants. Methods of reactive power compensation.
- Lecture:

<i>Particular lectures contents</i>	<i>Number of hours</i>
1. General characters industrial plants as customers electric energy	2
2. General rules energetic economy in industry	2
3. Diagrams of electroenergetic discharges	2
4. Appointment methods foreseeing electroenergetic discharges	2
5. Criteria applied to choice the electroenergetic structure	2
6. Reliability supplying in industrial plants	2
7. Electric energy quality	2
8. The influence deviations and oscillations of voltage for work of electric energy customers	2
9. The influence of asymmetry, non-sinusoid and frequency variations for work of electric energy receivers	2
10. Voltage regulation in electroenergetic industrial nets	2

11. Supplying of electric energy in industrial plants	2
12. Rational electric energy utilization	2
13. Forecasts of discharges and consumption energy	2
14. Reactive energy economy	2

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:.
- Project – the contents:
- Basic literature:

[1] Teresiak Z.(red.):Elektroenergetyka zakładów przemysłowych. Wyd. P. Wr., Wrocław 1981

[2] Horak J.: Sieć elektroenergetyczna. Wyd. Polit. Częstoch. , Częstochowa 1998

- Additional literature:

[1] Kinsner K.: sieci elektroenergetyczne. Wyd. P.Wr., Wrocław, 1993

- Conditions of the course acceptance/creditation:

Completion of the course is confirmed on the basis of examine covering the whole material

* - depending on a system of studies