

## DESCRIPTION OF THE COURSES

- Course code: ARR 2506
- Course title: Electrical load control
- 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>	test				
<b>ECTS credits</b>					
<b>Total Student's Workload</b>					

- Level of the course (basic/advanced): basic
- Prerequisites: Power systems
- Name, first name and degree of the lecturer/supervisor: Artur Wilczyński, dr hab. inż., prof. nadzw. PWr
- Names, first names and degrees of the team's members: dr inż. Henryk Wojciechowski
- Year:..5..... Semester:..9.....
- Type of the course (obligatory/optional): optional
- Aims of the course (effects of the course): the effects of the course is to learn by students the management problems of electrical load
- Form of the teaching (traditional/e-learning): traditional
- Course description: Electric load as a non-stationary and quasi-periodic stochastic process its decomposition and forecasting models. Correlation analysis of the forming factors of the demand process. The technical, economic, legal and marketing methods of the demand process forming. Methods of the Demand side Management (DSM). Idea of the balanced development, rationalization and efficiency of the energy using – trends and perspectives. Legislative basis of the planning and demand management.
- Lecture:

<i>Particular lectures contents</i>	<i>Number of hours</i>
1. Introduction to the lecture, curriculum, literature, requires. Process of the electric loads.	2
2. Times and spatial decomposition.	2
3. Long and short term load forecasting models.	2
4. Spatial loads modelling and forecasting.	2
5. Economical using of the energy.	2
6. The methods of the forming of the electric power and energy consuming.	2
7. The methods of the Demand side Management (DSM).	2
8. The role Of the supply sources management (SSM) in the demand management processes.	
9. Means of the economic influence on electricity consumers.	2

10. Means of the economic influence on electricity suppliers.	2
11. Legislative basis of electricity consumption planning and DSM.	2
12. Large sources utilized non and renewable.	2
13. Small autonomic sources utilized non and renewable.	2
14. Efficiency of the final using of the energy.	2
15. Test	2

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:
- Project – the contents:
- Basic literature:
  1. Ustawa – Prawo Energetyczne z dnia 10.04.1997 r. (Dz. U. Nr 54, poz.348).
  2. Rozporządzenie Ministra Gospodarki z dnia 3 grudnia 1998 r. W sprawie szczegółowych zasad kształtowania i kalkulacji taryf oraz zasad rozliczeń w obrocie energią elektryczną, w tym rozliczeń z indywidualnymi odbiorcami w lokalach (Dz. U. Nr 153, poz. 1002).
  3. Rozporządzenie Ministra Gospodarki z dnia 6 października 1998 r. w sprawie szczegółowych zasad kształtowania i kalkulacji taryf oraz zasad rozliczeń w obrocie ciepłem, w tym rozliczeń z indywidualnymi odbiorcami w lokalach. (Dz. U. Nr 132, poz. 867).
- Additional literature:
  1. Malko J., Wilczyński A., Rynki energii – działania marketingowe, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2006.
  2. Malko J., Wybrane zagadnienia prognozowania w elektroenergetyce. Wyd. PWR 1997
  3. Baehr J., Stawicki E., Prawo energetyczne. Komentarze. Municipum, Warszawa 1999
  4. Wilczyński A., Systemy taryfowe jako narzędzia ekonomicznego sterowania zapotrzebowaniem na moc i energię elektryczną. Pw.Nauk.Inst.Energoelekt. PWR., seria monografie nr 85 (25), Wrocław 1990.
- Conditions of the course acceptance/creditation: positive note of the test

\* - depending on a system of studies