FACULTY OF ELECTRICAL ENGINEERING

SUBJECT CARD

Name in Polish:	**Praca dyplomowa magisterska**
Name in English:	**Master's thesis**
Main field of study (if applicable):	**Industrial Control Engineering**
Specialization (if applicable):	**Automation and Control in Electrical Power Systems**
Level and form of studies:	**2nd level, full-time**
Kind of subject:	**optional**
Subject code:	**APR013159D**
Group of courses:	**NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU):				180	
Number of hours of total student workload (CNPS):				540	
Form of crediting:				crediting with grade	
For group of courses mark (X) final course:					
Number of ECTS points:				18	
including number of ECTS points for practical (P) classes :				18	
including number of ECTS points for direct teacher-student contact (BK) classes:				12.60	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

SUBJECT OBJECTIVES

SUBJECT LEARNING OUTCOMES

relating to knowledge:

relating to skills:

PEU_U01 xx

PEU_U02 xx

relating to social competences:

PEU_K01 xx

PROGRAMME CONTENT

Form of classes - project		Number of hours:
Proj 1	xx	180
	Total hours:	**180**

TEACHING TOOLS USED

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation *F – forming (during semester) P – concluding (at semester end)*	**Educational effect number**	**Way of evaluating educational effect achievement**

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

[1] Paska J., Wytwarzanie energii elektrycznej, OWPW, Warszawa 2018.
[2] Paska J., Rozproszone źródła energii, OWPW, Warszawa 2017.
[4] Lewandowski W., Klugmann-Radziemska E., Proekologiczne odnawialne źródła energii. Kompendium, PWN, Warszawa 2017.
[4] Marecki J., Podstawy przemian energetycznych, WNT, Warszawa 2013.
[5] Pawlik M., Strzelczyk F., Elektrownie, WNT, Warszawa 2010.

SECONDARY LITERATURE:

[1] Chmielniak T., Technologie energetyczne, WNT, Warszawa 2008.
[2] Kalinowski E., Termodynamika. OWPWr, Wrocław 1994.
[3] Paska J., Wytwarzanie rozproszone energii elektrycznej i ciepła, OWPW, Warszawa 2010.
[4] Skorek J., Kalina J., Gazowe układy kogeneracyjne. WNT, Warszawa 2005.

SUBJECT SUPERVISOR

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