

FACULTY OF ELECTRICAL  
ENGINEERING**SUBJECT CARD**

Name in Polish: **Normalizacja i prawo inżynierskie**  
 Name in English: **Standardization and engineering law**  
 Main field of study (if applicable): **Control Engineering and Robotics**  
 Specialization (if applicable): **Automation and Control in Electrical Power Systems**  
 Level and form of studies: **2nd level, full-time**  
 Kind of subject: **optional / university-wide**  
 Subject code: **PRR041216**  
 Group of courses: **NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU):	15				
Number of hours of total student workload (CNPS):	30				
Form of crediting:	crediting with grade				
For group of courses mark (X) final course:					
Number of ECTS points:	1				
including number of ECTS points for practical (P) classes :					
including number of ECTS points for direct teacher-student contact (BK) classes:	0.70				

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Basics of technology and law.
2. Awareness of continuous training and professional development.

**SUBJECT OBJECTIVES**

- C1. Understanding the basic elements of law necessary to engineering work in the field of: - technical standardization; - responsibility of the producer and seller for the product and its safety; - essential requirements of EU directives relating to the products.
- C2. Understanding the principles of standardization and the use of standards.
- C3. Acquisition of general knowledge of product standards, quality and safety management systems.
- C4. Awareness of the role of standardization and law in engineering activity.

**SUBJECT EDUCATIONAL EFFECTS***relating to knowledge:*

- PEK\_W01 He knows the basics of engineering law. He understands the concepts of standardization and its importance in engineering practice. He is able to explain the procedures for standards development.
- PEK\_W02 He understands what is the legal responsibility for the safety and quality of products.
- PEK\_W03 He is able to describe how to carry out assessment of products conformity with the requirements of EU directives.

*relating to skills:**relating to social competences:*

- PEK\_K01 He is aware of the importance of non-technical aspects of engineering activity

PROGRAMME CONTENT		
Form of classes - lecture		Number of hours:
Lec 1	Legal considerations of engineering and legal basis for standardization.	2
Lec 2	The role of standarization in engineering activity. Procedures for the development of standards.	2
Lec 3	Product standarization.	2
Lec 4	Normalization in quality management and conformity assessment of products with EU directives	2
Lec 5	Legal responsibility for the products and their safety.	2
Lec 6	The directive on general product safety.	2
Lec 7	Low voltage directive. Assessment of product comformity with the requirements of EU directives, regulations and standards.	2
Lec 8	Written test.	1
Total hours:		<b>15</b>

TEACHING TOOLS USED
N1. Lecture with multimedia presentation.
N2. Consultations.

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT		
Evaluation <i>F – forming (during semester) P – concluding (at semester end)</i>	Educational effect number	Way of evaluating educational effect achievement
F1(w)	PEK_W01 PEK_W02 PEK_W03	Written test
P(w)	P=F1	

PRIMARY AND SECONDARY LITERATURE
<p><b>PRIMARY LITERATURE:</b></p> <p>[1] Schweitz T. (red.) i inni: Normalizacja. Wyd. PKN, Warszawa 2012.</p> <p>[2] Ustawa z dn. 12.09.2002 r. o normalizacji. Dz.U. z 2002 r. nr. 169, poz. 1386 z późniejszymi zmianami.</p> <p>[3] Ustawa z dn. 23.04.1964 r. Kodeks Cywilny. Dz. U. Z 1964 r. nr 16, poz. 93 z późniejszymi zmianami.</p> <p>[4] Dyrektywy nowego podejścia.  <a href="http://www.mg.gov.pl/Wspieranie+przedsiębiorczosci/Bezpieczenstwo+produktow+i+uslug/Ocena+zgodnosci/Dyrektywy+Nowego+Podejscia">http://www.mg.gov.pl/Wspieranie+przedsiębiorczosci/Bezpieczenstwo+produktow+i+uslug/Ocena+zgodnosci/Dyrektywy+Nowego+Podejscia</a>.</p> <p>[5] Niebieski przewodnik - wdrażanie przepisów dotyczących produktów w Unii Europejskiej, 2014.  <a href="http://www.mg.gov.pl/files/upload/7904/Blue%20Guide%202014_pl.pdf">http://www.mg.gov.pl/files/upload/7904/Blue%20Guide%202014_pl.pdf</a>.</p> <p>[6] Ustawa z dn. 12.12.2003 r. o ogólnym bezpieczeństwie produktów. Dz. U. z 2003 r. nr 229, poz. 2275.</p> <p>[7] Rozporządzenie ministra gospodarki z dn. 21.08 2007 w sprawie zasadniczych wymagań dla sprzętu elektrycznego. Dz. U. z 2007 r. nr 155, poz. 1089.</p> <p>[8] Ustawa z dn. 30.08.2002 r. o systemie oceny zgodności. Dz. U. z 2002 r. nr 166, poz. 1360.</p> <p><b>SECONDARY LITERATURE:</b></p> <p>[1] Norma PN-EN 45020:2009 Normalizacja i dziedziny związane. Terminologia ogólna.</p> <p>[2] Norma PN-EN ISO 9000:2006 Systemy zarządzania jakością. Podstawy i terminologia.</p> <p>[3] Norma PN-EN ISO 9000:2009 Systemy zarządzania jakością. Wymagania. [4] Norma PN-EN ISO 9000:2010 Zarządzanie ukierunkowane na trwały sukces organizacji. Podejście wykorzystujące zarządzanie jakością.</p> <p>[5] Norma PN-EN ISO 9000:2005 Systemy zarządzania środowiskowego. Wymania i wytyczne stosowania.</p> <p>[6] Komisja Europejska: Wdrażanie dyrektyw opartych na koncepcji nowego globalnego podejścia - Przewodnik. <a href="http://www.mgip.gov.pl">www.mgip.gov.pl</a> .</p> <p>[7] Gnła B. (red.) i inni: Podstawy prawa dla ekonomistów. Wyd. Oficyna Wolter Kluwer Busines, Warszawa 2011.</p> <p>[8] Siuda W.: Elementy prawa dla ekonomistów. Wyd. SCRIPTUM, Poznań 2009.</p>

SUBJECT SUPERVISOR
Michał Lisowski, <a href="mailto:michal.lisowski@pwr.edu.pl">michal.lisowski@pwr.edu.pl</a>

MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
**PRR041216 - Standardization and engineering law**  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Control Engineering and Robotics**  
AND SPECIALIZATION **Automation and Control in Electrical Power Systems**

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)	Subject objectives	Programme content	Teaching tool number
PEK_W01	K2AiR_W06	C.1 C.2	Lec1 Lec2 Lec3 Lec4	N.1 N.2
PEK_W02	K2AiR_W06	C.2 C.3	Lec4 Lec5 Lec6 Lec7	N.1 N.2
PEK_W03	K2AiR_W06	C.3	Lec4 Lec5 Lec6 Lec7	N.1 N.2
PEK_K01	K2AiR_K03 K2AiR_K05	C.4	Lec1 Lec2 Lec3 Lec4 Lec5 Lec6 Lec7	N.1 N.2