Kielce University of Technology

FACULTY OF MECHATRONICS AND MECHANICAL ENGINEERING

Annex 9
to the Rector's Ordinance No. 35/19
of 12 June 2019

COURSE SPECIFICATION

Course code	**M#1-S1-ME-110**
Course title in Polish	**Podstawy normalizacji i innowacje**
Course title in English	**Fundamentals of Standardization and Innovations**
Valid from (academic year)	**2019/2020**

GENERAL INFORMATION

Programme of study	**MECHANICAL ENGINEERING**
Level of qualification	**first-cycle**
Type of education	**academic**
Mode of study	**full-time**
Specialism	**all**
Department responsible	**Department of Terotechnology and Industrial Laser Systems**
Course leader	**Dr hab. inż. Bogusław Grabas**
Approved by	

COURSE OVERVIEW

Course type	**programme-specific**
Course status	**compulsory**
Language of instruction	English
Semester of delivery	**semester 1**
Pre-requisites	**None**
Examination required (YES/NO)	NO
ECTS value	**1**

Mode of instruction	**lecture**	**class**	**laboratory**	**project**	**seminar**
No. of hours per semester	**15**				

LEARNING OUTCOMES

Category of outcome	Out-come code	Course learning outcomes	Corresponding programme outcome code
Knowledge	W01	They have a basic knowledge of the concepts and procedures in the field of regional, European and international standardization as well as knowledge of the importance of standards in the contemporary world.	MiBM1_W07
	W02	They have a fundamental knowledge of development trends in different areas of the technique including machine design, manufacture, operation and maintenance.	MiBM1_W09
Skills	U01	They are able to perceive relationships between engineering decisions and non-engineering background, especially their environmental, economic, and legal aspects related to standardization issues.	MiBM1_U16
	U02	They have independent learning skills required to deal with and solve new problems and for continuing professional development.	MiBM1_U21
Competence	K01	They are aware of and understand the relationships between engineering and non-engineering activities, including their impact on the environment and the responsibility for decision-making.	MiBM1_K02

COURSE CONTENT

Type of instruction*	Topics covered
lecture	1. History of standardization
	2. Levels of standardizations
	3. What is a standard
	4. How are standards developed and structured
	5. Standards and regulations – how they are related and how they interact
	6. International and European standardization
	7. Standards supporting innovation
	8. Final in-class test.

ASSESSMENT METHODS

Outcome code	Methods of assessment *(Mark with an X where applicable)*					
	Oral examination	Written examination	Test	Project	Report	Other
W01			x			
W02			x			
U01						x
U02						x
K01						x

ASSESSMENT TYPE AND CRITERIA

Mode of instruction*	Assessment type	Assessment criteria
lecture	**non-examination assessment**	*The pass mark is a minimum of 50% for the final in-class test.*

OVERALL STUDENT WORKLOAD

ECTS weighting							
	Activity type	**Student workload**					**Unit**
1.	Scheduled contact hours	L	C	Lab	P	S	h
		15					
2.	Other contact hours (office hours, examination)	2					h
3.	**Total number of contact hours**	**17**					h
4.	**Number of ECTS credits for contact hours**	**7**					ECTS
5.	**Number of independent study hours**	**8**					h
6.	**Number of ECTS credits for independent study hours**	**0,3**					ECTS
7.	**Number of practical hours**	**0**					h
8.	**Number of ECTS credits for practical hours**	**0,0**					ECTS
9.	**Total study time**	**25**					h
10.	**ECTS credits for the course** *1 ECTS credit = 25-30 hours of study time*	**1**					ECTS

READING LIST

1. Tomasz Schweitzer et all. " Normalizacja ", Ed: Polish Committee for Standardization, Warszawa 2010
2. Web page of Polish Committee for Standardization: www.pkn.pl/
7. Christopher Baker-Brian, „A World Built on Standards – A textbook for Higher Education”
   ISBN: 978-87-7310-964-9 (pdf)