



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technical and Legal Regulations in Construction, Operation and Trade Turnover of Machinery

		Course
Field of study		Year/Semester
Construction and Exploitation of Means of Transport		2/3
Area of study (specialization)		Profile of study
Machines		general academic
Level of study		Course offered in
Second-cycle studies		Polish
Form of study		Requirements
part-time		compulsory

		Number of hours
Lecture	Laboratory classes	Other (e.g. online)
18	0	0
Tutorials	Projects/seminars	
0	0	
<b>Number of credit points</b>		
2		

		Lecturers
Responsible for the course/lecturer:		Responsible for the course/lecturer:
dr inż. Jan Radniecki		
email: radjan52@o2.pl		
tel. 600 938 589		

**Prerequisites**

The student has basic technical knowledge about the design, development and testing research, production methods and quality control of machines delivered to the market. He knows the basic principles of the scope of use and operation of machines. The student is qualified to search for technical and legal information in public databases. He can interpret this information and practical extrapolations for the implementation of tasks within the framework of economic activity.

### Course objective

To acquaint students with the applicable EU legal requirements - implemented into national law - in the field of safety of products supplied by the manufacturer to the EU single market. Presentation of mandatory procedures for demonstrating compliance of the delivered products with EU directives and the national conformity assessment system. Presentation of the possibilities and principles of using PN, EN and ISO standards to confirm the product's compliance with EU requirements.



## Course-related learning outcomes

### Knowledge

The student obtains knowledge of the sources of legal requirements, harmonized technical requirements and methods of testing and documenting the mandatory control procedures performed. He has knowledge of the principles of the functioning of the EU single market.

### Skills

Ability to perform risk analysis, risk assessment and preparation of compliance documentation and confirmation in the EC declaration of conformity for the safety of electromechanical industry products.

### Social competences

Ability to cooperate with various units in the enterprise, integrating the results of the operation of individual technical and organizational units. The ability to defend the company's arguments in control processes and in dealing with market surveillance offices.

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Completion of the course based on a conversation on the practical use of EU standards and machinery directive.

## Programme content

System for assessing product compliance with EU law, harmonization of standards and technical requirements at the EU level, analysis of hazards and assessment of risks caused by machines to life, health and the environment.

## Teaching methods

Problem lecture with a multimedia presentation, discussion on the identification and verification of standardization requirements for selected, for example, machines.

## Bibliography

### Basic

- 1) Dyrektywa 2006/42/WE w sprawie maszyn(Dziennik Urzędowy Unii Europejskiej OJ L157/24).
- 2) Rozporządzenie Ministra Gospodarki z dn. 21 października 2008 w sprawie zasadniczych wymagań dla maszyn (Dz. U. nr 109/2008 poz. 1228 z późn. zm).
- 3) Przewodnik dotyczący stosowania dyrektywy 2006/42/WE w sprawie maszyn. Redakcja Ian Fraser. Wyd. Komisja Europejska - Przedsiębiorstwa i przemysł. 2010.

### Additional

- 1) Wybrane normy krajowe PN, europejskie EN i międzynarodowe ISO z zakresu bezpieczeństwa maszyn.



2) Wymagania bezpieczeństwa dla maszyn umieszczanych na rynkach Unii Europejskiej i na rynku Polski. Informator dla polskich podmiotów gospodarczych. Ministerstwo Gospodarki, Pracy i Polityki Społecznej. Warszawa 2003.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for exam) <sup>1</sup>	30	1,0

<sup>1</sup> delete or add other activities as appropriate