



Subject card

Subject name and code	Inspection, Standards, Certification and Legislation- Aspects in Wind Energy, PG_00066988						
Field of study	Smart Renewable Energy Engineering						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2027/2028	
Education level	second-cycle studies	Subject group				Specialty subject group Subject group related to scientific research in the field of study	
Mode of study	Full-time studies	Mode of delivery				at the university	
Year of study	2	Language of instruction				English	
Semester of study	3	ECTS credits				2.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Engineering Structures -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Wójcik					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	15.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours		Self-study	SUM	
	Number of study hours	30	4.0		16.0	50	
Subject objectives	The course aims to explain the role of certification in wind energy, its placement within the legal framework, and its impact on the selection of relevant technical standards and inspection procedures.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U04] possesses remote diagnostic skills and the ability to address technical issues in energy systems using remote diagnostic tools	The student is able to identify and analyze technical problems related to inspection and certification in wind energy and propose possible solutions using appropriate tools and standards.			[SU2] Assessment of ability to analyse information		
	[K7_K05] complies with legal regulations and standards related to renewable energy, including wind power, ensuring that energy installations and projects operate in accordance with current legislation	The student understands and applies legal regulations and standards governing wind energy installations, ensuring compliance with current requirements.			[SK1] Assessment of group work skills		
	[K7_W05] understands the principles of sustainable development and safety in the context of energy systems, including the role of electrification, and can assess the environmental impact of renewable energy systems, particularly wind power installations	The student understands the importance of safety and sustainability principles in the context of certification and legislation in wind energy, and can assess the impact of regulations on the environment and energy systems.			[SW1] Assessment of factual knowledge		
	[K7_W06] is acquainted with global, European, and national energy policies and regulations regarding renewable energy and has basic knowledge of project management in the context of energy engineering	The student has knowledge of European and national energy policies and legal regulations related to renewable, including wind energy, and understands the basics of project management in this field.			[SW1] Assessment of factual knowledge		

Subject contents	<p>Course content – lecture</p> <p>The course will cover:</p> <ul style="list-style-type: none"> • Introduction to the layout of a wind farm and its key components. • Roles of different stakeholders in the investment process and their importance for project success. • Tasks of designers and the significance of the certification process. • Key legal regulations applicable to wind energy. • Overview of essential technical standards relevant for design. • Scope of inspections carried out during the production and construction phases. 								
Prerequisites and co-requisites	No specific prerequisites. The student should have general engineering knowledge in renewable energy.								
Assessment methods and criteria	<table border="1" data-bbox="451 741 1477 804"> <thead> <tr> <th data-bbox="451 741 794 768">Subject passing criteria</th> <th data-bbox="794 741 1139 768">Passing threshold</th> <th data-bbox="1139 741 1477 768">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 768 794 804">Written test</td> <td data-bbox="794 768 1139 804">56.0%</td> <td data-bbox="1139 768 1477 804">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Written test	56.0%	100.0%
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Written test	56.0%	100.0%							
Recommended reading	Basic literature	<ul style="list-style-type: none"> • IEC 61400 Wind turbines International standards, https://webstore.iec.ch/en/publication/68499 • DNV (dawniej GL RC) certyfikacja turbin https://www.dnv.com/services/wind-turbine-type-certification-70124/ • Burton et al., Wind Energy Handbook Wiley Online Library https://onlinelibrary.wiley.com/doi/book/10.1002/9781119992714 							
	Supplementary literature	<ul style="list-style-type: none"> • Dyrektywa (UE) 2018/2001 (RED II) EUR-Lex (tekst skonsolidowany 16.07.2024) https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02018L2001-20240716 • Ustawa o OZE ISAP (tekst jednolity) https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001361 							
	eResources addresses								
Example issues/ example questions/ tasks being completed									
Practical activities within the subject	Not applicable								

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