



Subject card

Subject name and code	Hydrogen Project Management, PG_00070193						
Field of study	Hydrogen Technologies and Electromobility						
Date of commencement of studies	February 2026	Academic year of realisation of subject			2025/2026		
Education level	second-cycle studies	Subject group			Optional 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	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			1.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Functional Materials Engineering -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Sebastian Molin					
	Teachers	dr hab. inż. Sebastian Molin					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 4383 Zarządzanie projektami wodorowymi https://enauczanie.pg.edu.pl/2025/course/view.php?id=4383						
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	15	1.0	9.0	25		
Subject objectives	The course introduces students to the fundamentals of project management in the context of hydrogen technologies. Key concepts, methodologies and best practices are discussed. Selected national and international hydrogen projects are presented to illustrate real-world implementation conditions.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	<p>[K7_K01] is ready to create and develop models of proper behaviour in the work and life environment; undertake initiatives; critically evaluate actions of their own, teams and organisations they are part of; lead a group and take responsibility for its actions; responsibly perform professional roles taking into account changing social needs, including: - developing the achievements of the profession, - observing and developing rules of professional ethics and acting to comply to these rules</p>	<p>The student is ready to critically evaluate the course of hydrogen projects, take initiative in teamwork, and responsibly consider ethical, social and environmental conditions in project management.</p>	<p>[SK2] Assessment of progress of work</p>
	<p>[K7_U10] can individually plan and pursue their own lifelong education and influence others in this aspect, also by means of advanced information and communication technologies (ICT), and communicate on specialist issues with diverse recipients, appropriately justify points of view, hold debates, present, assess and discuss different opinions and points of view, as well as use specialist terminology related to the field of hydrogen technologies and electromobility in communication</p>	<p>The student can analyze and evaluate selected hydrogen projects, formulate and justify positions regarding their implementation, and present conclusions using terminology specific to hydrogen technologies and project management.</p>	<p>[SU4] Assessment of ability to use methods and tools</p>
	<p>[K7_W11] knows and understands, to an increased extent, the general principles of creation and development of forms of individual entrepreneurship and the economic, legal and other conditions of various types of activities related to the awarded qualification, including the principles of protection of industrial property and copyright law</p>	<p>The student knows basic project management methodologies and understands the economic, legal and organizational conditions for implementing hydrogen projects, including intellectual property protection principles.</p>	<p>[SW2] Assessment of knowledge contained in presentation</p>
	<p>[K7_W101] is able to make an in-depth identification of key objects and phenomena related to the field of study, as well as theories that describe them and applicable analytical and design methods</p>	<p>The student identifies key elements of a hydrogen project structure (scope, schedule, budget, risks, stakeholders) and describes analytical methods and tools used in planning and monitoring such projects.</p>	<p>[SW1] Assessment of factual knowledge</p>
<p>Subject contents</p>	<p>Course content – lecture</p> <ul style="list-style-type: none"> • (2h) Introduction to project management project definition, project life cycle, team roles, overview of methodologies (waterfall, agile, hybrid). • (2h) Project planning scope definition, work breakdown structure (WBS), scheduling, budgeting, stakeholder identification. • (2h) Risk management and project monitoring risk register, qualitative and quantitative analysis, progress indicators, change management. • (2h) Specifics of hydrogen projects hydrogen value chain, regulatory and financial environment, national and European hydrogen strategies, funding sources. • (2h) Selected hydrogen projects hydrogen production and storage (electrolyzers, salt caverns, transmission infrastructure, national and international projects). • (2h) Selected hydrogen projects hydrogen applications in transport, energy and industry (fuel cells, hydrogen buses/trains, industrial process decarbonization). • (2h) Case study team-based analysis of a selected hydrogen project: evaluation of structure, risks, schedule and outcomes, presentation and discussion of results. • (1h) Summary review of key topics, conclusions from analyzed projects, final discussion. 		
<p>Prerequisites and co-requisites</p>			
<p>Assessment methods and criteria</p>	<p>Subject passing criteria</p> <p>assessment of report - description of a selected project</p>	<p>Passing threshold</p> <p>60.0%</p>	<p>Percentage of the final grade</p> <p>100.0%</p>

Recommended reading	Basic literature	<ul style="list-style-type: none"> • PMBOK Guide A Guide to the Project Management Body of Knowledge, Project Management Institute, 7th Edition, 2021. • A European Strategy for Hydrogen, European Commission, COM(2020) 301, 2020. • The Future of Hydrogen Seizing Today's Opportunities, International Energy Agency (IEA), 2019. • Global Hydrogen Review, International Energy Agency (IEA), 2024.
	Supplementary literature	<ul style="list-style-type: none"> • Global Hydrogen Review 2025, International Energy Agency (IEA), 2025. Dostępny: https://www.iea.org/reports/global-hydrogen-review-2025 • Fuel Cell and Hydrogen Observatory (FCHO) Annual Reports (Technology & Market, Supply & Demand, Policy). Dostępne: https://www.fchoobservatory.eu
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Practical activities within the subject	Not applicable	

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