GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Master Thesis I, PG_00067001		
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	Optional 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	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	0.0	30.0	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	8.0	62.0	100

Subject objectives

Preparation by the student of a Master's thesis in the area of Smart Renewable Energy Engineering, including refinement of the topic, objective and scope of the thesis, literature review, selection of research methods, and commencement of analytical, design, computational, simulation or experimental work under the supervision of the thesis supervisor.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 knows the formal, regulatory and organisational conditions related to the thesis topic in the field of renewable energy and takes them into account when formulating the objective, scope and assumptions of the thesis.	[SW3] Assessment of knowledge contained in written work and projects
[K7_K01] is prepared to evaluate projects and operations in wind energy systems, demonstrating competencies in designing and optimizing renewable energy systems, including wind power	The student is ready to critically assess the assumptions, methods and results obtained in the thesis and to formulate justified conclusions concerning the design and optimisation of renewable energy systems, including wind energy systems.	[SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness
[K7_U01] is able to apply analytical thinking and solve technical problems related to renewable energy systems, including wind power, using engineering methodologies	The student is able to formulate an engineering problem related to the thesis topic and select and apply appropriate analytical, computational, simulation, design or experimental methods to solve it in the area of renewable energy systems.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools

Subject contents

Course content – seminar
Principles and requirements for the preparation of the Master's thesis. Refinement of the topic, objective, scope and assumptions of the thesis. Literature review and identification of the current state of knowledge in the area related to the thesis topic. Selection of research, computational, design, simulation or experimental methods appropriate to the task. Development of the thesis concept and commencement of the main analytical, design or research work under the supervision of the thesis supervisor. Consultations with the supervisor and, if necessary, other experts. Preparation of the initial structure and editorial part of the thesis.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="2">Completion of previous semesters of study and selection of the Master's thesis topic. Possession of knowledge and skills necessary to carry out the thesis in the area of Smart Renewable Energy Engineering, appropriate to its subject and scope.</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Assessment of progress in the Master's thesis</td><td>56.0%</td><td>100.0%</td></tr>
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<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Literature consistent with the thesis topic, including scientific publications, monographs, standards, technical documentation and source materials related to the area of Smart Renewable Energy Engineering.</td></tr>
<tr><td>Supplementary literature</td><td>Supplementary literature consistent with the thesis topic, in particular recent review and research papers, industry reports, strategic and regulatory documents, and digital resources supporting the completion of the thesis.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Formulation of the objective and scope of the thesis. Preparation of the thesis work plan. Literature review and identification of the current state of knowledge in the area related to the thesis topic. Selection of research, computational, design, simulation or experimental methods. Development of the concept for solving the engineering problem. Preparation of the initial thesis structure and commencement of the main analyses or research work.</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
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