University of Gdańsk

Subject card

Subject name and code	Research/Professional Project, PG_00205939		
Field of study	Quantum Information Technology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Master's studies	Subject group	Obligatory subject group in the field of study 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	English
Semester of study	3	ECTS credits	11.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Paweł Mazurek	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	230.0	0.0	230

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	230	0.0	45.0	275

Subject objectives

The aim of the subject is to make the student part of the ongoing active research in the area of Quantum Information Technologies, to foster connections with other scientists, and to prepare the student to work as an independent reseracher in academia or industry. Possible topics include, but are not limited to, quantum cryptography, quantum theory, quantum open systems, quantum computation and algorithms.

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<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[QITL3_U05] is able to manage the work of a team, cooperate with others in teamwork, and take a leading role in teams</td><td>Can participate and take leading role in scientific projects in the area of quantum technologies.</td><td>[SU8] observation of student's independent or team work</td></tr>
<tr><td>[QITL3_U01] is able to formulate and test hypotheses related to research problems in quantum information technologies</td><td>Can come up with suggestions of lines of research in the area of quantum technologies, including planning of the Master Project.</td><td>[SU1] oral statement/conversation/ discussion
[SU2] presentation/project/paper/ report</td></tr>
<tr><td>[QITL3_K01] is ready to critically evaluate the knowledge they possess and the content they receive, including in the field of quantum physics and technologies, is ready to recognize the importance of knowledge in solving cognitive and practical problems, and is ready to seek expert advice in the event of difficulties in solving a problem independently</td><td>Is ready for critical analysis of scientific papers in the area of physics and quantum technologies, can identify and assess rigority of scientific method application in research papers.</td><td>[SK1] oral statement/conversation/ discussion</td></tr>
<tr><td>[QITL3_K02] is ready to responsibly fulfill the role of of a quantum technologies specialist, taking into account the changing needs of society, including developing the professional achievements, maintaining the professional ethos, and adhering to and developing the principles of professional ethics
and working to ensure compliance with these principles</td><td>Is ready for pursuing academic and research career in an ethical way.</td><td>[SK1] oral statement/conversation/ discussion</td></tr>
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<tr><td>Subject contents</td><td>Participation in research project: discussions, literature search, research planning, calculations, simmulations, writing scientific paper, preparing poster/oral presentations of the results</td></tr>
<tr><td>Prerequisites
and co-requisites</td><td></td></tr>
<tr><td>Assessment methods
and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>evaluation of the project report or presentation of the results</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Depending on the research project.</td></tr>
<tr><td>Supplementary literature</td><td>None.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/
example questions/
tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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