

PLAN STUDIÓW

OBOWIAZUJE OD ROKU AKADEMICKIEGO: 2025/2026 - zimowy

WYDZIAŁ Wydział Matematyki, Fizyki i Informatyki

KIERUN Quantum Information Technology (O)

poziom II stopnia

profil: ogólnoakademicki

forma stacjonarne

Lp.	O/F	nazwa zajęć	efekty kształcenia	SEMESTR							
				forma zaliczenia	liczba godzin						liczba punktów ECTS
					w	ć	l	p	s	razem	
SEMESTR 1											
1 Quantum Information Technology (O) (Kierunek)											
1	O	Bezpieczeństwo i higiena kształcenia - poziom rozszerzony		Z	4	0	0	0	0	4	0
2	O	Introduction to Quantum Mechanics	QITL3_U01 QITL3_W01 QITL3_W06	E	30	30	0	0	0	60	6
3	O	Programming	QITL3_W02 QITL3_W05	Z	15	0	15	0	0	30	3
4	O	Paradoxes of Quantum Mechanics	QITL3_U01 QITL3_W01 QITL3_W04	Z	15	0	0	0	0	15	2
5	O	Mathematical Methods of Quantum Information	QITL3_U06 QITL3_W02 QITL3_W04	E	30	30	0	0	0	60	6
6	O	Probability and Information Theory	QITL3_K01 QITL3_U01 QITL3_U02 QITL3_U03 QITL3_U05 QITL3_U06 QITL3_W01 QITL3_W02 QITL3_W04 QITL3_W06	E	30	30	0	0	0	60	6

7	O	Szkolenie biblioteczne (Ćw. audytoryjne)		Z	0	3	0	0	0	3	0
8	O	Language Course 1		Z	0	30	0	0	0	30	2
9	O	Language Course 1 (Lektorat)	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
10	O	Language Course 1 German	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
11	O	Language Course 1 Spanish	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
12	O	Language Course 1 French	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
13	O	Language Course 1 Russian	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
suma:					124	123	15	0	0	262	25

SEMESTR 2											
1 Quantum Information Technology (O) (Kierunek)											
1	O	Signatures of non-classicality	QITL3_W04	E	30	30	0	0	0	60	6
2	O	Quantum Cryptography	QITL3_U01 QITL3_U02 QITL3_W01	E	30	30	0	0	0	60	6
3	O	Quantum Computation	QITL3_U01 QITL3_U02 QITL3_W01 QITL3_W02 QITL3_W04	E	30	30	0	0	0	60	6
4	O	Quantum Optics		Z	30	30	0	0	0	60	6
5	O	Language Course 2		Z	0	30	0	0	0	30	2
6	O	Language Course 2 French	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
7	O	Language Course 2 Spanish	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2

8	O	Language Course 2 Russian	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
9	O	Language Course 2 (Lektorat)	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
10	O	Language Course 2 German	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
11	O	Package of Optional Courses 1		E	60	60	0	0	0	120	12
12	O	Advanced Topics in Quantum Foundations	QITL3_K02 QITL3_U05 QITL3_W01 QITL3_W02 QITL3_W04 QITL3_W06	E	30	30	0	0	0	60	6
13	O	Categorical Quantum Mechanics	QITL3_K02 QITL3_U05 QITL3_W04 QITL3_W06	E	30	30	0	0	0	60	6
14	O	Quantum Thermal Machines		E	30	30	0	0	0	60	6
suma:					180	210	0	0	0	390	38

SEMESTR 3

1 Quantum Information Technology (O) (Kierunek)

1	O	MA workshop	QITL3_K01 QITL3_K02 QITL3_K03 QITL3_K04 QITL3_K05 QITL3_K06 QITL3_K07 QITL3_K08 QITL3_K09 QITL3_U02 QITL3_U03 QITL3_U04 QITL3_U05 QITL3_U06 QITL3_U09 QITL3_U11 QITL3_U12 QITL3_W03 QITL3_W05 QITL3_W06 QITL3_W07 QITL3_W08 QITL3_W09	Z	0	0	30	0	0	30	6
2	O	Philosophy of Science	QITL3_K01 QITL3_K04 QITL3_K08 QITL3_U10 QITL3_W01	Z	15	0	0	0	0	15	2

3	O	Research/Professional Project	QITL3_K03 QITL3_K04 QITL3_K06 QITL3_K07 QITL3_K08 QITL3_K09 QITL3_U05 QITL3_U06 QITL3_U07 QITL3_U08 QITL3_U09 QITL3_U10 QITL3_U12 QITL3_W07 QITL3_W09 QITL3_W10	Z	0	0	195	0	0	195	10
4	O	Physical Implementations of Quantum Information	QITL3_K02 QITL3_U01 QITL3_U02 QITL3_W01 QITL3_W03	Z	15	0	0	0	0	15	2
5	O	MA seminar	QITL3_U02 QITL3_U06 QITL3_W08	Z	0	30	0	0	0	30	2
6	O	Language Course 3		Z	0	30	0	0	0	30	2
7	O	Language Course 3 German	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
8	O	Language Course 3 Spanish	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
9	O	Language Course English 3 (Lektorat)	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
10	O	Language Course 3 Russian	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
11	O	Language Course 3 French	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	2
12	O	Package of Optional Courses 2		E	60	60	0	0	0	120	12

13	O	Coherence and Decoherence in Superconducting Qubits	QITL3_K02 QITL3_U01 QITL3_U05 QITL3_W01 QITL3_W02 QITL3_W03 QITL3_W06	E	30	30	0	0	0	60	6
14	O	Numerical Methods	QITL3_U05 QITL3_W02 QITL3_W03 QITL3_W05 QITL3_W06	E	30	30	0	0	0	60	6
15	O	Quantum Thermal Machines	QITL3_K02 QITL3_U01 QITL3_U02 QITL3_U05 QITL3_W01 QITL3_W02 QITL3_W03 QITL3_W04 QITL3_W05 QITL3_W06	E	30	30	0	0	0	60	6
suma:					90	120	225	0	0	435	36

SEMESTR 4

1 Quantum Information Technology (O) (Kierunek)

1	O	MA workshop	QITL3_K01 QITL3_K02 QITL3_K03 QITL3_K04 QITL3_K05 QITL3_K06 QITL3_K07 QITL3_K08 QITL3_K09 QITL3_U02 QITL3_U03 QITL3_U04 QITL3_U05 QITL3_U06 QITL3_U09 QITL3_U11 QITL3_U12 QITL3_W03 QITL3_W05 QITL3_W06 QITL3_W07 QITL3_W08 QITL3_W09	Z	0	0	30	0	0	30	6
2	O	MA seminar	QITL3_U02 QITL3_U06 QITL3_W08	Z	0	30	0	0	0	30	2
3	O	Research/Professional Project	QITL3_K03 QITL3_K04 QITL3_K06 QITL3_K07 QITL3_K08 QITL3_K09 QITL3_U05 QITL3_U06 QITL3_U07 QITL3_U08 QITL3_U09 QITL3_U10 QITL3_U12 QITL3_W07 QITL3_W09 QITL3_W10	Z	0	0	195	0	0	195	10

4	O	Basic micro-entrepreneurship	QITL3_K04 QITL3_K09 QITL3_W09 QITL3_W10	Z	15	15	0	0	0	30	3
5	O	Master Thesis and MA exam	QITL3_K01 QITL3_K02 QITL3_K05 QITL3_K06 QITL3_K08 QITL3_U04 QITL3_U05 QITL3_U07 QITL3_U08 QITL3_U10 QITL3_U11 QITL3_U12	E	0	0	0	0	0	0	5
6	O	Language Course 4		Z	0	30	0	0	0	30	1
7	O	Language Course 4 French	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	1
8	O	Language Course 4 Russian	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	1
9	O	Language Course English 4 (Lektorat)	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	1
10	O	Language Course 4 German	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	1
11	O	Language Course 4 Spanish	QITL3_U07 QITL3_U08 QITL3_U12	Z	0	30	0	0	0	30	1
12	O	Language Exam		E	0	0	0	0	0	0	1
13	O	Language Exam Spanish		E	0	0	0	0	0	0	1
14	O	Language Exam German		E	0	0	0	0	0	0	1
15	O	Language Exam French		E	0	0	0	0	0	0	1
16	O	Language Exam English (Lektorat)		E	0	0	0	0	0	0	1
17	O	Language Exam Russian		E	0	0	0	0	0	0	1
18	O	Package of Optional Courses 3		E	30	30	0	0	0	60	6

19	O	Advanced Topics in Quantum Foundations	QITL3_K02 QITL3_U05 QITL3_W01 QITL3_W02 QITL3_W04 QITL3_W06	E	30	30	0	0	0	60	6
20	O	Quantum Thermal Machines	QITL3_K02 QITL3_U01 QITL3_U02 QITL3_U05 QITL3_W01 QITL3_W02 QITL3_W03 QITL3_W04 QITL3_W05 QITL3_W06	E	30	30	0	0	0	60	6
21	O	Quantum Information	QITL3_K02 QITL3_U01 QITL3_W01 QITL3_W03 QITL3_W04 QITL3_W06	E	30	30	0	0	0	60	6
suma:					45	105	225	0	0	375	34

ŁĄCZNIE						
		PRAKTYKI				
					Kurs	
					Quantum information technology (O)	
					(Kierunek)	
					SUMA GODZIN	1462
					SUMA ECTS	133

objaśnienia:

O - przedmiot obowiązkowy do zaliczenia danego roku studiów

F - przedmiot fakultatywny (do wyboru)

w - wykład

ć - ćwiczenia

l - laboratorium

p - projekt

s - seminarium

*kod nadawany przez system "Programy kształcenia"

**grupy zajęć zgodne z załącznikiem nr 1 do niniejszego zarządzenia (w sprawie zasad tworzenia oraz likwidacji kierunków studiów wyższych na Uniwersytecie Gdańskim)