

Table of Curriculum

Classification	Course No.	Computer code	Course Name	Lecture;Lab.; Credit	Semester	Note	
Elective course	Basic	QU501	H1.501	Introductory Quantum Mechanics	3:0:3	spring or fall	◎
		PH475	20.475	Quantum Information I	3:0:3	spring	◎
		PH476	20.476	Quantum Information II	3:0:3	fall	◎
	Advanced	QU511	H1.511	Quantum Computing	3:0:3	spring or fall	◎
		QU512	H1.512	Quantum Software	3:0:3	spring or fall	◎
		QU513	H1.513	Quantum Communications and Networks	3:0:3	spring or fall	◎
		QU514	H1.514	Quantum Metrology and Sensing	3:0:3	spring or fall	◎
		PH503	20.503	Quantum Mechanics I	3:0:3	spring	◎
		PH504	20.504	Quantum Mechanics II	3:0:3	fall	◎
		PH611	20.611	Advanced solid State Physics I	3:0:3	spring or fall	
		PH613	20.613	Semiconductor Physics	3:0:3	spring or fall	
		PH624	20.624	Quantum Optics	3:0:3	spring or fall	
		PH711	20.711	Physics of Magnetism	3:0:3	spring or fall	
		PH713	20.713	Physics of Superconductivity	3:0:3	spring or fall	
	Elective course	EE547	35.547	Introduction to Quantum Information Processing	3:0:3	spring or fall	◎
		EE661	35.661	Solid State Physics	3:0:3	spring or fall	
	Project based Learning	QU811	H1.811	Neutral Atom Quantum Simulator Development	0:9:3	spring or fall	
		QU812	H1.812	Measurement of Superconducting Qubits	0:9:3	spring or fall	
		QU813	H1.813	Applications of Superconductor Based Quantum Devices	0:9:3	spring or fall	
		QU814	H1.814	Quantum Algorithms and Quantum Software	0:9:3	spring or fall	
QU815		H1.815	Quantum Machine Learning and Quantum Neural Network Lab	0:9:3	spring or fall		
QU816		H1.816	Quantum Error and Noise Correction	0:9:3	spring or fall		
QU817		H1.817	Applications of Quantum Metrology and Sensing	0:9:3	spring or fall		
QU818		H1.818	Quantum Integrated Nanophotonics	0:9:3	spring or fall		
QU819		H1.819	Fundamentals on Nanophotonic Hybrid Quantum System	0:9:3	spring or fall		
QU820		H1.820	Development of Quantum Material-based Device	0:9:3	spring or fall		
Research	QU960	H1.960	MS Thesis Research	0:3:3	spring and fall		
	QU965	H1.965	Independent Study in M.S.	0:0:0	spring and fall		
	QU980	H1.980	Ph.D. Dissertation Research	0:3:3	spring and fall		
	QU966	H1.966	Seminar in MS	1:0:1	spring and fall		
	QU986	H1.986	Seminar in Ph.D	1:0:1	spring and fall		

※ ◎: Course mutually recognized by undergraduate and graduate programs.

※ Substitute courses may differ according to the effective year of the requirements.