The participating faculties and departments at both Aalto University and the University of Helsinki offer a range of courses relating to all aspects of quantum studies.

Students from both universities can sign up for any of the courses listed below.

Courses offered by the University of Helsinki

Code	Name	Credits
BSPH2004	Introduction to quantum physics	5
BSPH2005	Applications of quantum physics: atoms and molecules	5
CSM14211	Introduction to the Programming Quantum Computers	5
FILM-312a	Philosophy of Science, Advanced	5
FYS2003	Basics of Quantum Physics	5
FYS2005	Quantum physics applications	5
FYS2018	Quantum mechanics I	10
FYS2019	Quantum Statistics	5
FYS2023	Basics of Quantum Physics (Se)	5
FYS2029	Quantum Computing	
KEM372	Laser Spectroscopy Instrumentation	5
KEM365	Laser Spectroscopy	5
MAST30134	Topics in Quantum Computation	
MAST31218	Introduction to Quantum Computation	5 5
MAST31303	Quantum Dynamics	10

Code	Name	Credits
MAST31709	Optimal Stochastic Control	5
MATR303	Solid State Physics	
MATR322	Numerical Methods in Scientific Computing	10
MATR324	Monte Carlo simulations in physics	5
MATR327	Computational nanoscience	10
PAP346	Path Integral Quantization of Gauge Field Theories	10
PAP334	Statistical methods	5
TCM302	Quantum mechanics Iia	5
TCM303	Quantum mechanics Iib	
TCM304	Mathematical Methods of Physics IIIa	5
TCM305	Mathematical Methods of Physics IIIb	5
TCM309	Kinetic Theory	10
TCM311	Quantum field theory I	10
TCM312	Quantum field theory II	10
TCM315	Open Quantum Systems	10
TCM320	Stochastic Methods A	5
TCM321	Stochastic Methods B	5
TCM322	Quantum Information A	5
TCM323	Quantum Information B	5
TCM306	Advanced Statistical Physics	5

TCM4101	Methods in Many-Body Quantum Systems	5

Courses offered by the Aalto University School of Science

Code	Name	Credits	Level
PHYS-C0210	Kvanttimekaniikka	5	BSc
PHYS-C0240	Materiaalifysiikka	5	BSc
PHYS-E0414	Advanced quantum mechanics	5	MSc
PHYS-E0551	Low Temperature Physics	5	MSc
PHYS-E0420	Quantum many-body physics	5	MSc
PHYS-E0421	Solid state physics	5	MSc
PHYS-E0436	Modern optics	5	MSc
PHYS-E0437	Laser physics	5	MSc
PHYS-E0525	Microscopy of nanomaterials	5	MSc
PHYS-E0541	Machine learning for Materials science	5	MSc
PHYS-C0254	Quantum circuits	5	BSc
PHYS-C0258	Quantum Labs	5	BSc
PHYS-E0412	Computational physics	5	MSc

Courses offered by the Aalto University School of Electrical Engineering

Code	Name	Credits	Level
ELEC-C9440	Quantum information	5	BSc
ELEC-C9420	Introduction to Quantum Technology	5	BSc
ELEC-E3230	Nanotechnology	5	MSc
ELEC-C9430	Electromagnetism	5	BSc
ELEC-E4130	Electromagnetic Fields	5	MSc
ELEC-E3140	Semiconductor Physics	5	MSc
ELEC-E3220	Semiconductor Devices	5	MSc
ELEC-E3240	Photonics	5	MSc
ELEC-E4810	Metamaterials and nanophotonics	5	MSc