

Physics and Nanoscience, Master's programme

120 credits

Fysik och nanovetenskap, masterprogram

6MFYS

Valid from:

Determined by

Board of Studies for Electrical
Engineering, Physics and Mathematics

Date determined

Entry requirements

Degree in Swedish

Naturvetenskaplig masterexamen med huvudområde fysik

Curriculum

Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFYA04	Materials Optics	6	A1X	4	E
TFYA21	Physical Metallurgy	6	A1X	3	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	3	E
TFYA71	Cosmology	6*	A1X	3	E
TFYA85	Alternative Energy Sources and their Applications	6	G2X	4	E
TFYY67	Classical Electrodynamics	6	A1X	1	E
Period 2					
TGTU76	Philosophy of Science	6	G1X	4	C
TFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFMT19	Chemical Sensor Systems	6	A1X	4	E
TFYA18	Mathematical Methods of Physics	6	A1X	3	E
TFYA19	Quantum Computers	6	A1X	4	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	2	E
TFYA38	Optoelectronics	6	A1X	3	E
TFYA41	Thin Film Physics	6	A1X	2	E
TFYA71	Cosmology	6*	A1X	2	E

Specialisation: Experimentell fysik

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFYA04	Materials Optics	6	A1X	4	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
Period 2					
TFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFYA38	Optoelectronics	6	A1X	3	E
TFYA41	Thin Film Physics	6	A1X	2	E

Specialisation: Teoretisk fysik

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFYA04	Materials Optics	6	A1X	4	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
TFYA71	Cosmology	6*	A1X	3	E
TFYY67	Classical Electrodynamics	6	A1X	1	E
Period 2					
TFYA18	Mathematical Methods of Physics	6	A1X	3	E
TFYA19	Quantum Computers	6	A1X	4	E
TFYA71	Cosmology	6*	A1X	2	E

Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	C
TFYA53	Computational Physics	6	A1X	4	E
TFYA88	Additive Manufacturing: Tools, Materials and Methods	6	A1X	3	E
TFYY47	Semiconductor Physics	6	A1X	1	E
Period 2					
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	C
TFYY54	Nano Physics	6	A1X	3	C
TFYA20	Surface Physics	6	A1X	4	E
TFYA27	Elementary Particle Physics	6	A1X	2	E
TFYA57	Relativistic Quantum Mechanics	6	A1X	3	E
TGTU04	Leadership	6	G2X	2	E

Specialisation: Experimentell fysik

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFYY47	Semiconductor Physics	6	A1X	1	E
Period 2					
TFYA20	Surface Physics	6	A1X	4	E

Specialisation: Teoretisk fysik

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFYA53	Computational Physics	6	A1X	4	E
Period 2					
TFYA57	Relativistic Quantum Mechanics	6	A1X	3	E

Semester 4 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TQXX30	Degree project - Master's Thesis	30*	A1X	-	C
Period 2					
TQXX30	Degree project - Master's Thesis	30*	A1X	-	C

ECV = Elective / Compulsory / Voluntary

*The course is divided into several semesters and/or periods