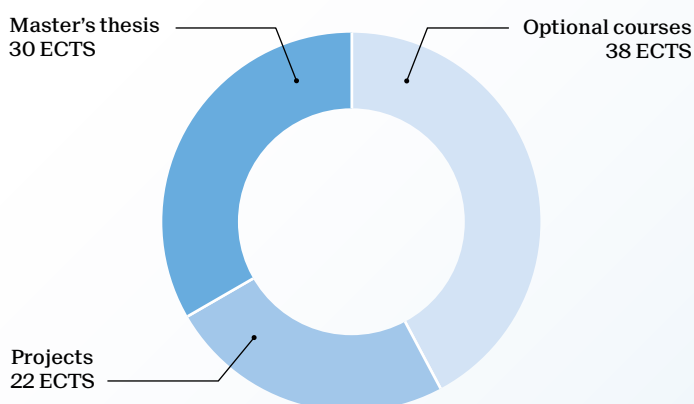
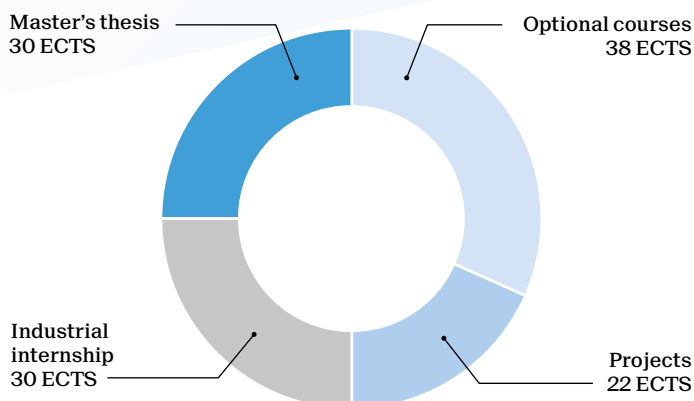


Master of Science in PHYSICS AND APPLIED PHYSICS

Physics - 1 1/2-year program - 90 ECTS



Applied Physics - 2-year program - 120 ECTS



**In the MSc in Physics, it is possible to opt for an additional
30 ECTS Minor in:**

- Area and Cultural Studies
- Biomedical Technologies
- Computational Science and Engineering
- Energy
- Management, Technology and Entrepreneurship
- Space Technologies

School of Basic Sciences
master.epfl.ch/physics
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	Credits
Optional courses	38
Astrophysics III: Stellar and galactic dynamics	4
Astrophysics IV: Observational cosmology	4
Atomes et rayonnement	4
Biophysics II	4
Computer simulation of physical systems I, II	8
Diffraction Methods in Structural Biology	4
Electron microscopy: advanced methods	3
Experimental methods in physics I, II	8
Frontiers in nanosciences	4
Fundamentals of biomedical imaging	4
Introduction à la physique des astroparticules	4
Introduction to particle accelerators	4
Laser: theory and modern applications	3
Neutronics	4
Optique II	4
Optics III	4
Particle detection	4
Particules élémentaires I, II	8
Physics of atoms, nuclei and elementary particles	4
Physics of materials	4
Physics of photonic semiconductor devices	4
Physique des nouveaux matériaux	4
Physique du solide III	4
Physique moléculaire	4
Plasma Physics II, III	8
Quantum Electrodynamics and Quantum Optics	4
Quantum optics and quantum information	4
Quantum physics III, IV	8
Radiation protection and radiation applications	4
Reactor Technology	4
Relativistic quantum fields I, II	8
Relativity and cosmology I, II	8
Selected topics in nuclear and particle physics	4
Semiconductor electronic and optoelectronic devices I, II	8
Solid State Physics IV	4
Statistical physics III, IV	8
Statistical physics of biomacromolecules	4

Courses in other programmes according to list of recommended courses max. 18

Projects	22
2 Physics Research projects (labs IVa and IVb)	16
Project in human and social sciences	6
Research projects in the following fields:	
Astrophysics	
Biophysics	
Cristallography & Diffraction	
Electronic microscopy	
Electronic and quantum photonics	
High energy physics	
Condensed matter physics	
Accelerator physics	
Reactor physics	
Plasma physics	
Surface physics	
Theoretical physics	

Internship	30
Master in Applied Physics: internship in industry	30