

Engineering Physics

Basic information

Code: SCI3075

Extent: 25 cr

Language: English

Teacher in charge: Mika Sillanpää

Administrative contact: [Johanna Bovellán](#)

Target group: All master's students with sufficient prerequisite knowledge.

Application process: Open for all students of Aalto University

Quotas and restrictions: No quotas.

Prerequisites: Bachelor's level minor in Engineering Physics (offered in Finnish) or Advanced Energy Systems (offered in Finnish) or equivalent knowledge.

Content and structure of the minor

The Engineering Physics minor consists of one course out of two research methods courses and 20 credits where the student can modify the minor according to personal interests. In case of prerequisites or a need for more tailored choices, these can be agreed on together with the professor in charge.

Structure of the minor

Code	Name	Credits	Period
Compulsory courses		5	
PHYS-E0411	Advanced Physics Laboratory	5	III - V
OR			
PHYS-E0412	Computational Physics	5	III - V
Elective courses		20	
20 credits selected freely from the following courses			
PHYS-E0419	Dynamics of Particles, Fluids and Solids	5	I - II
PHYS-E0414	Advanced Quantum Mechanics	5	I - II
PHYS-E0415	Statistical Mechanics	5	I - II
PHYS-E0421	Solid-State Physics	5	I - V

PHYS-E0422	Soft Condensed Matter Physics	5	III - IV
PHYS-E0435	Optical Physics	5	I- II
PHYS-E0460	Introduction to Reactor Physics	5	I- II
PHYS-E0461	Introduction to Plasma Physics for Fusion and Space Applications	5	I- II
PHYS-E0463	Fusion Energy Technology	5	II I- IV
PHYS-E0483	Advances in New Energy Technologies	5	II I- IV
