

Syllabus Master Programme in Engineering Mechanics for study year 2010/2011

Teknisk mekanik, master

Syllabus updated on 2009-11-17 by Enhetschefen Utbildnings-och forskningsenheten.

Programme cancelled. Last term: S11



This is an adjusted view

Enrolled A09

Credits

The programme requires 120 credits.

Degree

[Master of Science \(120 credits\) - Major: Mechanical Engineering](#)

Specialisations

Name	For admitted until
INR040 Engineering Mechanics <i>Teknisk mekanik</i>	

Course content and structure

For a Masters degree in Engineering Mechanics (120 credits) of which at least 90 credits must be on the advanced level including a thesis of 30 credits. The subject of the thesis must be within the specialization of the programme.

45 credits of the elective courses can be exchanged to other courses after consultation with the programcoordinator.

Eligibility

General entry requirements, second cycle.

An academic background in a relevant discipline or profession. Suitable backgrounds are a Bachelor in Engineering Physics, Mechanical Engineering or similar, with basic knowledge of solid and fluid mechanics and good knowledge of mathematics. Minimum requirements are 7.5 credits in continuum mechanics (solid and fluid mechanics), 22.5 credits in physics and 30 credits in mathematics. In mathematics knowledge of vector analysis and partial differential equations is needed.

Applicants must provide proof of their proficiency in English. LTU require an IELTS test (academic) with minimum score 6,0 (no part lower than 5,0) or a paperbased Toefl test with minimum score 550 (minimum TWE 4) or an internetbased Toefl test with minimum score 79 (minimum Writing 17) or equivalent

Selection

Selection C

Compulsory courses

Compulsory courses 120 credits

Course code	Name	Credits
E7003T	Thesis	30
F7015T	Applied Mechanics	15
F7016T	Advanced Fluid Mechanics	7.5

F7018T	Computational fluid dynamics	7.5	
F7021T	Advanced experimental techniques	7.5	
M7009T	Finite element analysis of solid structures	7.5	

AND

45 credits of the elective courses can be exchanged to other courses after consultation with the program coordinator.

Selective courses 45 credits

Course code	Name	Credits	
		7.5	Replaces S7010N
F7023T	Advanced Continuum Mechanics	7.5	
M7005T	Structural Models in Solid Mechanics	7.5	
M7006T	Mechanical Waves	7.5	
M7010T	Dynamics in mechanical systems	7.5	
M7012T	Fracture mechanics and fatigue	7.5	
T7016T	Material mechanics	7.5	

Study schedule

Year of study 2 Admitted in A09 Is offered in 10/11

		Sp 1 Sp 2 Sp 3 Sp 4					
F7023T	Advanced Continuum Mechanics	7.5	x				Optional
M7006T	Mechanical Waves	7.5	x				Optional
M7005T	Structural Models in Solid Mechanics	7.5		x			Optional
T7016T	Material mechanics	7.5		x			Optional
E7003T	Thesis	30			x	x	