Mechanical Engineering, Master's programme

120 credits

Mechanical Engineering, masterprogram

6MMEC

Valid from:

Determined by
Board of Studies for Mechanical Engineering and Design

Date determined
2015-01-16

Introduction

For the complete syllabus, also see "Tekniska högskolans studiehandbok":
http://kdb-5.liu.se/liu/lith/studiehandboken/enutbplan.lasso?&up_year=2017&up_ladokkod=6MMEC

Entry requirements

Degree in Swedish

Master of Science (120 credits) with a major in Mechanical Engineering

Degree in English

Master of Science (two years) with a major in Mechanical Engineering

Curriculum

Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMAL51	Aircraft Conceptual Design	6	A1X	2	E
TMHL41	Continuum Mechanics	6	A1X	2	E
TMHL62	The Finite Element Method; advanced course	6	A1X	4	E
TMKM40	Engineering Materials - New Materials	6	A1X	2	E
TMKT48	Design Optimization	6	A1X	3	E
TMMS30	Multi Body Dynamics and Robotics	6	A1X	3	E
TMMV08	Computational Fluid Dynamics	6	A1X	1	E
TMPS42	Production System Automation	6	A1X	1	E
TMQU31	Statistical Quality Control	6	A1X	2	E
TPPE54	Advanced Planning and Scheduling	6	A1X	1	E
Period 2					
TMHL61	Damage Mechanics and Life Analysis	6	A1X	2	E
TMKM09	Engineering Materials for Lightweight Applications	6	A1X	3	E
TMKM18	Engineering Materials, Welding and Manufacturing Technology	6	G2X	2	E
TMKT57	Product Modelling	6	A1X	3	E
TMME11	Road Vehicle Dynamics	6	A1X	1	E
TMMS10	Fluid Power Systems and Transmissions	6	A1X	2	E
TMMV07	Computational Fluid Dynamics, advanced course	6	A1X	4	E
TMMV56	Aerodynamics, Continued Course	6	A1X	3	E
TMPS27	Production Systems	6	A1X	3	E
TMQU04	Six Sigma Quality	6	A1X	2	E
TPMM06	Analysing and Improving Manufacturing Operations	6	A1X	3	E
TSFS03	Vehicle Propulsion Systems	6	A1X	3	E

Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMKM90	Engineering Materials - Deformation and Fracture	6	A1X	4	C
TKMJ31	Biofuels for Transportation	6	A1X	1	E
TMAL02	Aircraft and Vehicle Design	6	G2X	4	E
TMHL19	Advanced Material and Computational Mechanics	6	A1X	1	E
TMHP02	Fluid Power Systems	6	G2X	2	E
TMKT79	Collaborative Multidisciplinary Design Optimization	6	A1X	2	E
TMME14	Machine Elements, Second Course	6	A1X	3	E
TMME40	Vibration Analysis of Structures	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	3	E
TMMS13	Electro Hydraulic Systems	6	A1X	2	E
TMMV01	Aerodynamics	6	A1X	2	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM06	Project Course Advanced - Mechatronics	12*	A1X	-	E
TMPM07	Project Course Advanced - Applied Mechanics	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	E
TMPS33	Virtual Manufacturing	6	A1N	4	E
Period 2					
TAMS11	Probability and Statistics, first course	6	G2X	4	E
TAOP18	Supply Chain Optimization	6	A1X	1	E
TMHL03	Mechanics of Light Structures	6	A1X	3	E
TMMS07	Biomechanics	6	A1X	4	E
TMMS11	Models of Mechanics	6*	A1X	4	E
TMMS20	Structural Optimization	6	A1X	1	E
TMMV18	Fluid Mechanics	6	A1X	2	E
TMMV54	Computational Heat Transfer	6	A1X	1	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM06	Project Course Advanced - Mechatronics	12*	A1X	-	E

Course code	Course name	Credits	Level	Timetable module	ECV
TMPM07	Project Course Advanced - Applied Mechanics	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	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