Computer Science, Master's programme

120 credits

Computer Science, masterprogram

6MICS

Valid from:

Determined by
Faculty Board of Institute of Technology

Date determined
2015-01-16

Introduction

The complete syllabus is available at http://kdb-5.liu.se/liu/lith/studiehandboken/enutbplan.lasso?&up_year=2017&up_ladokkod=6MICS

Entry requirements

Degree in Swedish

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

Degree in English

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

Curriculum

Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TATA64	Graph Theory	6	A1X	2	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TDDB68	Concurrent Programming and Operating Systems	6	G2X	3	E
TDDD17	Information Security, Second Course	6	A1X	4	E
TDDD25	Distributed Systems	6	A1X	2	E
TDDD38	Advanced Programming in C++	6	A1X	2	E
TDDD41	Data Mining - Clustering and Association Analysis	6	A1X	3	E
TDDD97	Web Programming	6	G2X	3	E
TDDE09	Natural Language Processing	6	A1X	2	E
TDTS07	System Design and Methodology	6	A1X	1	E
TNM048	Information Visualisation	6	A1X	3	E
TNM061	3-D Computer Graphics	6	G2X	1	E
TSBK35	Audio and Image Compression	6	A1X	2	E
Period 2					
TAOP24	Optimization, Advanced Course	6	G2X	1	E
TATA64	Graph Theory	6	A1X	2	E
TDDC78	Programming of Parallel Computers - Methods and Tools	6	A1X	3	E
TDDD05	Component Based Software	6	A1X	1	E
TDDD17	Information Security, Second Course	6	A1X	4	E
TDDD27	Advanced Web Programming	6	A1X	3	E
TDDD29	IT-Project Management	6	A1X	3	E
TDDD38	Advanced Programming in C++	6	A1X	-	E
TDDD48	Automated Planning	6	A1X	1	E
TNM061	3-D Computer Graphics	6	G2X	4	E
TNM079	Modelling and Animation	6	A1X	2	E

Course code	Course name	Credits	Level	Timetable module	ECV
TNM096	Artificial Intelligence - Principles and Techniques	6	G2X	1	E
TNM098	Advanced Visual Data Analysis	6	A1X	4	E

Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TATA55	Abstract Algebra	6	G2X	3	E
TBMI19	Medical Information Systems	6	A1X	2	E
TDDB84	Design Patterns	6	A1X	4	E
TDDC34	Technical, Economic and Societal Evaluation of IT-products	6	A1X	3	E
TDDC88	Software Engineering	12	A1X	1	E
TDDD04	Software Testing	6	A1X	2	E
TDDD08	Logic Programming	6	A1X	4	E
TDDD23	Design and Programming of Computer Games	6	A1X	2	E
TDDD38	Advanced Programming in C++	6	A1X	2	E
TDDD43	Advanced Data Models and Databases	6	A1X	2	E
TDDE19	Advanced Project Course - AI and Machine Learning	6	A1X	4	E
TDDE21	Advanced Project Course: Secure Distributed and Embedded Systems	6	A1X	4	E
TNCG15	Advanced Global Illumination and Rendering	6	A1X	4	E
TNM067	Scientific Visualization	6	A1X	3	E
TNM095	Artificial Intelligence for Interactive Media	6	A1X	2	E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	E
TSIN01	Information Networks	6	A1X	3	E
TSIT03	Cryptology	6	A1X	2	E
TSKS02	Telecommunication	6	G2X	1	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
TSTE86	Digital Integrated Circuits	6	A1X	2	E
Period 2					

Course code	Course name	Credits	Level	Timetable module	ECV
TDDD89	Scientific Method	6	A1X	3	C
TATA55	Abstract Algebra	6	G2X	3	E
TBMI19	Medical Information Systems	6	A1X	3	E
TDDB44	Compiler Construction	6	A1X	1	E
TDDC88	Software Engineering	12	A1X	1	E
TDDC90	Software Security	6	A1X	1	E
TDDD38	Advanced Programming in C++	6	A1X	-	E
TDDD43	Advanced Data Models and Databases	6	A1X	2	E
TDDD56	Multicore and GPU Programming	6	A1X	2	E
TDDE13	Multi Agent Systems	6	A1X	1	E
TDDE16	Text Mining	6	A1X	2	E
TDDE19	Advanced Project Course - AI and Machine Learning	6	A1X	4	E
TDDE21	Advanced Project Course: Secure Distributed and Embedded Systems	6	A1X	4	E
TNM086	Virtual Reality Techniques	6	A1X	2	E
TSIN02	Internetworking	6	A1X	1	E
TSKS02	Telecommunication	6	G2X	2	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