

Course Structure Diagram
Master of Science (Technology)
International Master's Programme in Computer Science and Engineering (120 ECTS)

Year/Semester

2 / Spring	Master's Thesis + Thesis seminar 31 ECTS cr	
2 / Autumn	Advanced Studies 28 ECTS cr	
1 / Spring	Advanced Studies 27 ECTS cr	Language and Culture 8 ECTS cr
1 / Autumn	Advanced Studies 26 ECTS cr	

Language and Culture 8 ECTS cr

Course	ECTS cr	Semester
900017Y Survival Finnish	2	1/Autumn
900013Y Beginner's Finnish 1	2	1/Autumn
900053Y Beginner's Finnish 2	4	1/Spring

Advanced Studies 81 ECTS cr

Basic Module 19 ECTS cr

521005P Orientation Course for New CSE Students	1	1/Autumn
521146S Research Methods in Computer Science	5	1/Autumn
521145A Human Computer Interaction	5	1/Autumn
521260S Programmable Web Project	5	1/Spring
521016A Advanced Practical Training	3	2

Students select either the CVSP module and its optional courses, or the UbiComp module and its optional courses.

CVSP Module 52 ECTS cr

521279S Signal Processing Systems	5	1/Autumn
521321S Elements of Information Theory and Coding	5	1/Autumn
031025A Introduction to Optimization	5	1/Autumn
521466S Machine Vision	5	1/Spring
521497S Pattern Recognition and Neural Networks	5	1/Spring
521493S Computer Graphics	7	1/Spring
521281S Application Specific Signal Processors	5	1/Spring
521280S DSP Laboratory Work	5	2/Autumn
521259S Digital Video Processing	5	2/Autumn
521273S Biosignal Processing	5	2/Autumn

CVSP Optional Studies (minimum 10 ECTS cr)

Recommended optional courses:

521495A Artificial Intelligence	5	1/Spring
521337A Digital Filters	5	1/Spring
521484A Statistical Signal Processing	5	1/Spring
521147S Mobile and Social Computing	5	1/Spring
521467A Digital Image Processing	5	2/Autumn
521489S Research Work on Information Processing	8	2/Autumn
521148S Ubiquitous Computing Fundamentals	5	2/Autumn
521488S Multimedia Systems	6	2/Autumn

UbiComp Module 42 ECTS cr

Course	ECTS cr	Semester
521148S Ubiquitous Computing Fundamentals	5	1/Autumn
521488S Multimedia Systems	6	1/Autumn
521146A Applied Computing Project I	10	1/Autumn+Spring
521147S Mobile and Social Computing	5	1/Spring
521266S Distributed Systems	6	1/Spring
521147S Applied Computing Project II	10	2/Autumn+Spring

UbiComp Optional Studies (minimum 20 ECTS cr)

Recommended optional courses:

521479S Software Project	8	1 or 2/Spring
521264S Human-Computer Interaction Techniques	5	1 or 2/Spring
521149S Special Course in Information Technology	5-8	2/Autumn or Spring
521489S Research Work on Information Processing	8	2/Autumn or Spring
521xxxS UBI Summer School	5	Summer
812335A Interaction Design	4	2/Autumn
815653S Open Source Software Development	4	2/Autumn
815309A Real Time Distributed Software Development	6	2/Autumn
817603S System Design Methods for Information Systems	5	2/Autumn
813624S Information Systems Theory	7	2/Autumn

Optional Embedded Systems Module

521142A Embedded Systems Programming	5	1/Spring
521275A Embedded Software Project	8	2/Autumn
521423S Embedded System Project	5	2/Spring

Master's Thesis 31 ECTS cr

521400S CSE Master's Thesis Seminar	1	2/Autumn+Spring
Master's Thesis	30	2/Autumn+Spring