

Course Structure Diagram 2025-2027

Master's Degree Programme in Computing Sciences and Electrical Engineering (120 ECTS)

Advanced studies: Embedded Systems, 80 ECTS

Curriculum: COMP.CE-S03: Advanced Studies in Embedded Systems | Tampere universities (tuni.fi)

	Course code	Course name	ECTS	1 st year				2 nd year			
				1. autumn		1. spring		2. autumn		2. spring	
				1. per.	2. per.	3. per.	4. per.	1. per.	2. per.	3. per.	4. per.
Compulsory courses: Joint Studies & Advanced Studies in Embedded Systems	ITC.CEE.100	Introduction to Master's Studies and Professional Life	3	x	1	2					
	LANG.SUV.001	Suomi 1	3	3							
	ITC.CEE.800	Tools for theses	5	x	x	x	5				
	COMP.CE.340	Dependable Embedded Systems	5	2,5	2,5						
	COMP.CS.410	Operating Systems and Concurrency	5	2,5	2,5						
	COMP.SE.200	Software Testing	5					2,5	2,5		
	EE.ELE.500*	Mikrokontrollerijärjestelmät (in Finnish)*	5					5			
	LANG.ENG.007	Thesis Writing B	2					1	1	1	1
	ITC.OPN.930	Master's Thesis	30					x	x	x	30
	TAU.KN.131	Maturity Test in Master's Degree in English	0								x
Compulsory optional courses in Advanced Studies in Embedded Systems	<i>Select at least one course, 5 cr.</i>										
	EE.ELE.250	Microcontrollers	5	2,5	2,5						
	COMP.CE.130	Computer Architecture	5			5					
	<i>Select at least two courses, 10 cr</i>										
	EE.ELE.510	Embedded Systems and Electronics Productization	5			2,5	2,5				
	COMP.CE.450	Internet of Things	5			2,5	2,5				
	COMP.SE.620	Software Engineering Project 2	5			2,5	2,5	2,5	2,5		
Elective courses in Advanced Studies in Embedded Systems	COMP.SE.110	Software Design	5						5		
	COMP.CE.460	Embedded Linux Drivers	5	2,5	2,5						
	COMP.CS.120	Ohjelmoinnin tekniikka C (in Finnish)	5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	COMP.SE.121	Software Product and Process Management	5			5					
	COMP.SE.210	Software Systems Architecture	5			2,5	2,5				
	EE.ELE.512	Verkotetut mikrokontrollerijärjestelmät (in Finnish)	5						5		
Optional compulsory courses in Joint Studies	COMP.CE.350	Parallel Computing	5					2,5	2,5		
	LANG.SUV.002	Suomi 2	2		x	x	x				
	LANG.SUV.003	Suomi 3	3			x	x				
	LANG.SUV.004	Suomi 4	2				x		x		
	LANG.SUV.005	Suomi 5	3			x		x			
	LANG.ENG.002	Working Life Interactions in English	2			x	x	x	x		
	LANG.ENG.003	Online Working Life Interactions in English	2			x	x	x	x		
	LANG.ENG.004	Text Talk: Research and Discussion for Academic and Professional Life	2	x	x	x	x	x	x		
	TAU.PSY.000	Student's Well-being and Life Skills course	1 – 2	x	x	x	x	x	x		
Recomm. courses in free choice studies	LANG.ICC.002	Entering the Global Workplace: Interculturality and Communication	2		x	x	x	x			
	COMP.CS.110	Programming 2: Techniques	5	5		5					
	COMP.CS.115	Programming 3: Interfaces	5				5				

* The course is implemented only in Finnish. International degree students may study some compulsory optional or elective course instead.