MASTER

Embedded Systems (ES)

TU/e

**EINDHOVEN
UNIVERSITY OF
TECHNOLOGY**

TUE.NL

The design of innovative software and hardware is the core of technological and industrial progress. The Master's program in Embedded Systems is a co-production of the departments of Mathematics and Computer Science and Electrical Engineering, awaiting students with a Bachelor's in computer science or electrical engineering. It rests on a sound theoretical foundation, with an emphasis on the design of quality embedded systems. As a graduate of this program, you will have developed a scientific attitude and an engineering approach to the field, and you will be able to play a leading role in the development of embedded systems, either in scientific research, in industry or governmental organizations.

Program structure		
Mandatory courses	System Validation	5 EC
	Embedded Computer Architecture	5 EC
	Quantitative Evaluation of Embedded Systems	5 EC
	Real-time Systems	5 EC
	Embedded Systems Lab	5 EC
Streams*	Systems on Chip	15+15 EC
	Embedded Software	15+15 EC
	Embedded Networking	15+15 EC
	Cyber-Physical Systems	15+15 EC
	Graduation project**	10+30 EC
	Free electives (which may include homologation courses and an internship)	20 EC

Total ≥120 EC

* Each student chooses one of these four streams. Each stream has three mandatory courses (15 EC) and an associated list of electives from which also three courses (15 EC) must be chosen.
** The graduation project consists of a preparation phase (10 EC) and a Master's Thesis project (30 EC).

	Schedule
Q1	2IMF10 System Validation
	stream course/free elective
	stream course/free elective
Q2	5SIA0 Embedded Computer Architecture
	2IMN20 Real-time Systems
	stream course/free elective
Q3	2IMN25 Quantitative Evaluation of Embedded Systems
	stream course/free elective
	stream course/free elective
Q4	5LIB0 Embedded Systems Lab
Q5+6	stream courses/free electives/preparation for graduation project
Q7+8	master's thesis project

More detailed information can be found in the digital education guide (https://educationguide.tue.nl/programs/graduate-school/masters-programs/embedded-systems/)

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