Course: Embedded Programming — credits: 5

Course code	ELVP22EMP
Name	Embedded Programming
Study year	2026-2027
ECTS credits	5
Language	Dutch, with parts in English, English
Coordinator	H.T. Keulen
Modes of delivery	Problem-based learning
Assessments	Embedded Programming - Assignment

Learning outcomes

Defining
The student clearly identifies a problem or customer need, contextualizes it, consults relevant sources, and converts it into a goal, problem statement, and electrical engineering requirements.

Designing
The student considers various solution directions to arrive at a detailed and well-founded electrical engineered product/service/process based on the program of requirements, using appropriate design methodologies and taking into account societal interests and engineering standards.

Realizing
The student realizes and validates a (prototype of) a product/service/process based on a technical design, using the appropriate materials/techniques/instruments.

Content

The student is able to:

- define and specify an the goal of an embedded programming assignment as well as contextualize it, while providing examples of input/output and use-cases.
- create a graphical representation of an algorithm, based on the definition phase, while making sure this is understandable by the client and programmer. This serves as a intermediary step before the coding.
- write code based on the algorithm and maintain a clear relationship between algorithm and coding.
- testing of the code based on examples and use-cases as defined by the assignment.

Included in programme(s)

Electrical Engineering Major Mechatronics
Electrical Engineering Major Sensors & Smart Systems
Electrical Engineering Major Energy & Power Electronics

School(s)

Engineering, Life Sciences & ICT

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