

## Vak: Digital Electronics 1

credits: 2

<b>Vakcode</b>	ELVP19ADIG1	<b>Werkvormen</b>	Hoorcollege
<b>Naam</b>	Digital Electronics 1		Practicum / Training
<b>Studiejaar</b>	2020-2021	<b>Toetsen</b>	Digital Electronics 1 - Schriftelijk, organisatie tentamenbureau
<b>ECTS credits</b>	2		Digital Electronics 1 LabsLabs - Vaardigheidstoets
<b>Taal</b>	Engels		
<b>Coördinator</b>	P.J. Kamphuis		

### Leeruitkomsten

The student is able to:

- binary, Decimal and HEX conversions. BCD coding;
- analyze a combinatoric problem using basic digital gates;
- design and build a combinatoric circuit using Karnaugh maps and Boolean algebra;
- design, build and implement memory circuits with combinatoric logic;
- analyze an existing counter build with JK- or D-Flipflops.

### Inhoud

During this unit the student will learn about Boolean algebra, combinatory logic and state machines. This will enable the student to understand the architecture and internal operation of a CPU and its peripherals.

During the theory lessons a few practical's are performed. (Practical is not graded)

### Opgenomen in opleiding(en)

Elektrotechniek Major Sensor Technology  
Minor Technology to Create  
Exchange Technology to Create (autumn)

### School(s)

Instituut voor Engineering

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