

## Course: Continuous Time Signal Processing

credits: 4

<b>Course code</b>	ELVH19ACTSP	<b>Modes of delivery</b>	Lecture
<b>Name</b>	Continuous Time Signal Processing		Practical / Training
<b>Study year</b>	2022-2023	<b>Assessments</b>	Continuous Time Signal Processing - Written, organised by STAD examinations
<b>ECTS credits</b>	4		
<b>Language</b>	English		
<b>Coordinator</b>	B.D. Williams		

### Learning outcomes

- The student can calculate the frequency response of an LTI system.
- The student can calculate and sketch the magnitude and phase of the frequency response of an LTI system, and recognise the most fundamental meanings of these characteristics.
- The student can perform a frequency analysis of a signal by use of the correct form of the Fourier Transform in combination with standard characteristics and tables of the Fourier transform.
- The student can apply Fourier analysis to calculate the impact of sampling and windowing on spectra.
- The student can apply convolution and multiplication properties of FT theory to filtering, modulation and sampling of a continuous time series.

### Content

During this study unit you will have tutorials and theory. For the theory you will get some homework assignments. If you do these assignments correctly, you have the possibility to earn a higher grade on your written exam.

### Included in programme(s)

Exchange Technology to Innovate (autumn)  
Electrical Engineering Major Sensor Technology  
Minor Technology to Innovate

### School(s)

Institute of Engineering