

Course: Design & Engineering I

credits: 3

Course code	WBVP17DE1	Modes of delivery	Education
Name	Design & Engineering I	Assessments	Design & Engineering I - Written, organised by STAD examinations
Study year	2022-2023		
ECTS credits	3		
Language	English		
Coordinator	H.J. Grijpstra		

Learning outcomes

After finishing this module the student:

- formulates sound requirements on a design
- makes a systematic choice between design concepts
- uses planes and sketches in order to create a single 3D part in SolidWorks
- makes a 3D assembly by inserting multiple parts
- creates connections with fasteners generated by the toolbox
- creates a correct part drawing with dimensions and title block according to NEN/ISO
- creates a correct assembly drawing with dimensions, title block, bill of materials (BOM) and labels according to NEN/ISO
- applies the correct geometrical tolerances, datums, limits, fits, and surface texture

Content

In this 3 EC module students learn the phases in a systematic design process (problem definition, concept phase and engineering), with an emphasis on formulating sound requirements on a design. 3D modeling of a design in SolidWorks is addressed (parts, assemblies), together with generating technical drawings from the 3D model according to NEN/ISO standards. Concerning technical drawings, topics include drawing sizes, scales, projections, dimensions, roughness and tolerances.

Included in programme(s)

Mechanical Engineering VWO a 3-year variant

School(s)

Institute of Engineering