Course: Product Design & Industrialisation — credits: 10

Course code	WBVB24PDI
Name	Product Design & Industrialisation
Study year	2026-2027
ECTS credits	10
Language	Dutch, with parts in English
Coordinator	G. Mollema
Modes of delivery	Education
Assessments	Professional Skills - Assignment Project - Assignment

Learning outcomes

The student:

- describes what the total product lifecycle for a given product looks like, from design, production plan, production organization, production and delivery;
- analyzes the influence of a product's design choices on manufacturing technology, cost price, production planning, lead time and factory design;
- draws up a work preparation in which production steps, times and costs are specified;
- draws up a production plan including lead times and critical path for a given product;
- describes the manufacturing process through systems and models
- determines the cost price of a product from material and production costs, calculates a simple hourly rate for people and machines as a basis for the cost price of a product (part);

Content

Designing and drawing a product is one thing, but then producing it is another step. The questions that can be asked are: how is the part made? Which machines are available? In what order will we produce? What will be the cost price of the product? What will be the delivery time?

All these questions are addressed in this project. It is (therefore) a next step in the product creation process. This section is about the work preparation/planning/delivery time to get from drawing to product.

Often, with new products, a prototype is first made to remove all minor (production) errors and only then does series production proceed. Within this project we will do something similar; first prepare the work preparation/planning/delivery time for prototypes in an existing production environment and then prepare the work preparation/planning/delivery time for the series in an optimized line (own design).

Included in programme(s)

Mechanical Engineering VWO a 3-year variant

School(s)

Engineering, Life Sciences & ICT

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