

Course: Separation Technology 1

credits: 5

Course code	CTVH26SCHEIDTCH1	Modes of delivery	Assignment
Name	Separation Technology 1		Lecture
Study year	2026-2027		Practical / Training
ECTS credits	5		Tutorial
Language	Dutch, with parts in English	Assessments	Separation Technology 1 - Practical - Other assessment
Coordinator	G. Lammers		Separation Technology 1 - Theory - Written, organised by STAD examinations

Learning outcomes

The Separation Technology 1 module covers the following components of the BOKS Chemical Technology curriculum:

Knowledge:

- Unit operations: separation techniques: Filtration and gas absorption

Skills:

- Experimenting with pilot-scale separation techniques
- Working safely in laboratory and industrial environments
- Research skills and systematic problem-solving

This module has the following learning outcomes:

- You describe the gas absorption process mathematically using the overall mass balance and the concepts of mass transfer coefficient ($K_g \cdot a$), transfer unit (N) and Height Equivalent to a Theoretical Plate (HETP).
- You describe the filtration process mathematically for the situation of filtration at constant pressure and filtration with a constant filtrate flow rate.
- You carry out a gas absorption experiment on a semi-technical scale and use the concepts of flooding and overall transfer coefficient to describe the experimental results.
- You will carry out batch filtration experiments on a semi-technical scale and use the results to determine the numerical values of the cake resistance coefficient α and the cloth resistance b .

The aim of the module is to develop competence in the field of separation technology. The module forms part of the Separation Technology learning pathway, alongside the modules Process Simulation and Modelling 1 and 2, and Separation Technology 2.

Content

Included in programme(s)

Chemical Engineering

School(s)

Engineering, Life Sciences & ICT

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