

Course: Food Technology

credits: 5

Course code	CTVH24LEVENSMDL	Modes of delivery	Assignment
Name	Food Technology		Practical / Training
Study year	2026-2027		Tutorial
ECTS credits	5	Assessments	Levensmiddelentechnologie Practicum - Other assessment
Language	Dutch, with parts in English		Levensmiddelentechnologie Theorie - Written, organised by STAD examinations
Coordinator	R.A. Knigge		

Learning outcomes

This module has the following learning outcomes:

You define and describe colloids and master the basic concepts of colloid chemistry.

You describe different methods used for making colloid systems and for determining the particle size of colloids.

You describe and calculate the various forces (gravity, heat movement and intermolecular forces) acting in colloidal systems.

You describe and calculate the influence of surfactants on the properties of a solution.

You describe the industrial processes concerning food technology safety and hygiene (CIP, HACCP, HazOp).

You perform a lab/pilot experiment in a safe and accurate way and reflect on the results obtained.

Content

In this module, we will look at so-called colloidal systems within food technology: heterogeneous mixtures containing particles between 1 nanometre and 1 micrometre in size. These include emulsions, suspensions, sols, foams and the like. Colloids play an important role in everyday life and are found in creams, sauces, paints, cosmetics, gelatine, milk and many other products. We are going to look at 3 forces acting on colloid particles, namely gravity, heat motion (Brownian motion) and intermolecular forces acting on the boundary surfaces. The interplay of these forces creates the unique properties of colloids. In this module, you will also learn how to influence these forces in the technology of colloidal systems and how to make measurements on colloids. The theory (3 EC) will be tested with a written digital exam.

Besides theory, the practical part (2 EC) will focus on the quality and safety of industrial processes such as membrane technology, Cleaning in Place (CIP), food safety (HAACP) and Hazard & Operability analysis (HazOp).

Included in programme(s)

Chemical Engineering

School(s)

Engineering, Life Sciences & ICT