

# Chemical Engineering

**Code:** CHEM3055

**Language:** English

**Teacher in charge:** [Prof. Ville Alopaeus](#)

**Administrative contact:** Planning Officer Niina Arppe

**Extent:** 20-25 cr

**Study objectives:** In the Chemical engineering minor students get an insight to a transition from an oil-based to a sustainable society. Utilizing natural resources is vital for a sustainable way of living and will be crucial for future economic growth, as it will provide also new business opportunities.

The minor starts with basics in chemistry, and based on student's interests, continues by getting familiar to biosciences, biomaterials, biomaterial processing, or by deepening the knowledge in basic chemistry.

**Target Group:** All Aalto students, with sufficient prerequisite knowledge. Not for Chemical Engineering major students or for students of the Bachelor's Programme in Chemical Technology (ei Kemiaan tekniikan kandidaattiohjelman opiskelijoille). MSc students should check with their own study programme that this minor can be included in the degree.

**Application process:** With an email to the administrative contact before 1.9. Study plan should be attached to the application.

**Quotas and restrictions:** Max 10 students per year.

## Content and structure of the minor

Code	Name	ECTS cr.	Period
Compulsory courses			
CHEM-C1200	Chemistry I	5	I-II (Autumn)
CHEM-C1210	Chemistry II	5	IV-V (Spring)
Optional courses, choose 2-3 courses (note prerequisites)			
CHEM-C1300	Fundamental Biosciences	5	III-IV (Spring)
CHEM-C2250	Chemistry III	5	III-IV (Spring)
CHEM-C2310	Bioprocess Technology (available in 2020)	5	IV-V (Spring)
CHEM-C2330	Biochemistry	5	I-II (Autumn)
CHEM-C2340	Industrial Biomass Processes	5	IV-V (Spring)
CHEM-C2470	Basics of Material Science (available in 2021)	6	I-II (Autumn)
CHEM-C3320	Plant biomass	5	I (Autumn)
CHEM-C3420	Basics of Polymer Technology	5	I-II (Autumn)
CHEM-A1610	Design Meets Biomaterials	5	IV-V (Spring)