GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2025-2026

Resources Chemical Technology (I002848)

Course size *(nominal values; actual values may depend on programme)*

Credits 5.0 **Study time 150 h**

Course offerings in academic year 2026-2027

A (Year) English Gent

Lecturers in academic year 2026-2027

Bertau, Martin	FREIBE01	lecturer-in-charge

Offered in the following programmes in 2026-2027	crdts	offering
International Master of Science in Sustainable and Innovative Natural Resource Management	5	A

Teaching languages

English

Keywords

chemical technology, raw material recovery, chemistry, engineering

Position of the course

Contents

Fundamentals: Chemical technology of raw material recovery processes, chemistry of main group and transition metals as well as lanthanides, basic unit operations, basic reaction engineering.
Applications: Realisation of raw material processing on a technical scale, process economy, environmental safeguards.

Initial competences

Fundamental knowledge in chemical technology, chemical engineering and inorganic chemistry

Final competences

1 After completing this module, students should be able
- to understand raw material processing on a technical scale

2 - explain the chemical-technological concepts behind modern production techniques

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture, Practical

Extra information on the teaching methods

S1 (WS): Lectures (1 SWS)
S1 (WS): Tutorials / Exercises (1 SWS)
S1 (WS): Case studies (problem-based learning workshops) / project (1 SWS)

Study material

None

References

M. Bertau, P. Fröhlich, M. Katzberg, Industrial Inorganic Chemistry, Wiley, 2016

Kirk-Othmer et al., Chemical Technology, Wiley, 2013
J. Huheey et al., Inorganic Chemistry, Pearson, 2008

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Presentation, Written assessment

Examination methods in case of periodic assessment during the second examination period

Presentation, Written assessment

Examination methods in case of permanent assessment

Participation, Presentation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

For the award of credit points it is necessary to pass the module exam.

Calculation of the examination mark

The Grade is generated from the examination result(s) with the following weights (w):
KA* [w: 2]
AP*: Course work [w: 1]
* In modules requiring more than one exam, this exam has to be passed or completed with at least "ausreichend" (4,0), respectively.