

## 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 2024-2025**

A (Year) English Gent

**Lecturers in academic year 2024-2025**

Bertau, Martin FREIBE01 lecturer-in-charge

**Offered in the following programmes in 2024-2025**

	<b>crdts</b>	<b>offering</b>
<a href="#">International Master of Science in Sustainable and Innovative Natural Resource Management</a>	5	A

**Teaching languages**

English

**Keywords**

**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**

Written assessment

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

Written assessment

#### **Examination methods in case of permanent assessment**

Participation

#### **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.