

# Course Specifications

Valid in the academic year 2023-2024

# Resources Chemical Technology (1002848)

Course size	(nominal values; actual values may depend on programme)				
Credits 5.0	Study time 150 h				
Course offerings in a	cademic year 2023-2024				
A (Year)	English	Gent			
Lecturers in academi	c year 2023-2024				
Bertau, Martin			FREIBE01	lecturer-in-	charge
Offered in the follow	ring programmes in 2023-2024			crdts	C

ffered in the following programmes in 2023-2024	crdts	offering	
International Master of Science in Sustainable and Innovative Natural Resource	5	А	
Management			

#### **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

Lecture

#### 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)

#### Learning materials and price

#### 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

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

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

Examination methods in case of permanent assessment

### 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