

## Organization

**Lecturer(s):** Prof. Dr. Philipp Fleiger

**Lecture :** Room 5.3.022  
Tuesday | 09:00–12:15 | weekly | on-site

**Workload:** 180 hours | 60 hours (contact time) | 120 hours (self-study)

**Credits:** 5 ECTS

**Prerequisites:** Participation from semester 4 onwards; basic knowledge of process engineering recommended

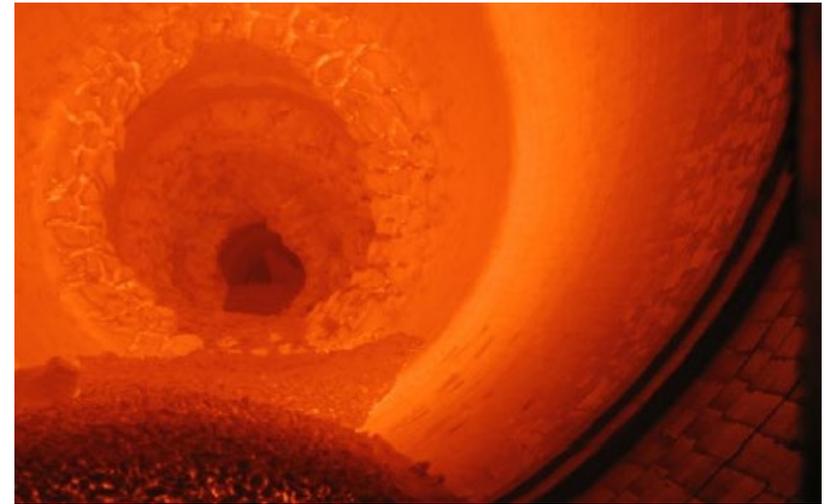
**Examination :  
format** Oral exam (30 minutes) in English or German

**Language:** English (exam in German upon request)

**Moodle:** <https://mdl.hs-duesseldorf.de/course/view.php?id=358>

## Contents

- Insight into industrial practice and the challenges of everyday operations – illustrated with many examples
- Extraction and processing of raw materials
- Burning of cement clinker and cement grinding
- Thermal and electrical energy efficiency
- Chemistry and mineralogy of cement and its raw materials
- Emission abatement
- Visit to laboratories, pilot plants or a cement plant (if possible)



### Personal benefits

- Insight into the practical work of (process) engineers
- Opportunity to apply one's own theoretical knowledge
- Exciting industry with a wide range of opportunities
- Strong connection to societal issues such as CO<sub>2</sub> reduction