

CH-349

**Experimental physical chemistry**

Drabbels Marcel

| Cursus               | Sem. | Type |
|----------------------|------|------|
| Chemical Engineering | BA5  | Obl. |
| Chemistry            | BA5  | Obl. |

|                      |                     |
|----------------------|---------------------|
| Language of teaching | English             |
| Credits              | 4                   |
| Withdrawal Session   | Unauthorized Winter |
| Semester             | Fall                |
| Exam                 | During the semester |
| Workload             | 120h                |
| Weeks                | 14                  |
| <b>Hours</b>         | <b>4 weekly</b>     |
| Project              | 4 weekly            |

**Number of positions**

**It is not allowed to withdraw from this subject after the registration deadline.**

**Summary**

Experiments related to physical chemistry courses

**Content**

- Introduction to error analysis
- Calorimetry
- Amperometry
- Laser spectroscopy, Fourier transform spectroscopy
- Kinetics
- Surfactants, surface tension

**Learning Outcomes**

By the end of the course, the student must be able to:

- Work out / Determine heat capacity
- Work out / Determine diffusion coefficient
- Work out / Determine rotational and vibrational constants
- Work out / Determine activation energy
- Work out / Determine surface tension
- Assess / Evaluate experimental data

**Transversal skills**

- Write a scientific or technical report.
- Access and evaluate appropriate sources of information.
- Collect data.
- Use a work methodology appropriate to the task.
- Take feedback (critique) and respond in an appropriate manner.
- Keep appropriate documentation for group meetings.

### **Assessment methods**

Evaluation of the individual experiments performed during the semester