

ChE-460

**Project in biotechnology**

Profs divers \*

| Cursus              | Sem. | Type |
|---------------------|------|------|
| Biotechnology minor | E, H | Opt. |

|                      |                                   |
|----------------------|-----------------------------------|
| Language of teaching | English                           |
| Credits              | 10                                |
| Withdrawal Session   | Unauthorized<br>Winter,<br>Summer |
| Semester Exam        | Fall<br>During the semester       |
| Workload             | 300h                              |
| Weeks                | 14                                |
| <b>Hours</b>         | <b>12 weekly</b>                  |
| Project              | 12 weekly                         |

**Number of positions**

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

**Remark**

Uniquement pour le mineur en Biotechnologie

**Summary**

Completing a project in biotechnology in a research lab of choice.

**Content**

The research projects aim at improving the practical laboratory skills. Furthermore, students learn to plan and design scientific experiments, and to develop advanced written and verbal communication skills.

**Keywords**

Bioprocess development, cell engineering, immuno-engineering, tissue engineering, engineering of biomaterials, biomedical engineering, environmental biotechnology, microbial biotechnology, microalgae biotechnology, etc.

**Learning Outcomes**

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

- Manage an individual research project
- Apply the competences to a specific subject
- Design research
- Assess / Evaluate the results critically
- Compose the project in written form in a scientific report
- Expound the project in oral form for a scientific audience
- Develop expertise in a specific area of research
- Present data coherently and effectively

**Transversal skills**

- Communicate effectively, being understood, including across different languages and cultures.
- Write a literature review which assesses the state of the art.

- Summarize an article or a technical report.
- Assess progress against the plan, and adapt the plan as appropriate.
- Collect data.
- Access and evaluate appropriate sources of information.

### **Expected student activities**

Planning, designing and performing research in a lab  
Choosing and critical reading of scientific literature relevant to the research project  
Evaluation of research data, and writing a scientific report  
Oral presentation of the research project

### **Assessment methods**

The research project requirements includes a written report and an oral presentation.

### **Supervision**

|              |     |
|--------------|-----|
| Office hours | Yes |
| Assistants   | Yes |