



## CORE FACILITIES

### SC00005, Cell culture, 2.5 credits

Cellodling, 2,5 högskolepoäng

*Third-cycle level / Forskarnivå*

---

#### Confirmation

This syllabus was confirmed by the Council for PhD Education at Sahlgrenska Academy on 2018-12-11, and was last revised on 2024-03-01. The revised course syllabus is valid from Autumn semester 2024.

#### *Responsible Department*

Core Facilities, Sahlgrenska Academy

#### Entry requirements

Admitted to postgraduate education.

In order to assimilate the content of the course a basic understanding of cell biology and biomedicine is necessary.

The course is an elective course within the third cycle at Sahlgrenska Academy.

#### Learning outcomes

After completing the course the student is expected to be able to:

##### *Knowledge and understanding*

- describe differences between cell lines and primary cells
- describe what is needed to culture cells in the laboratory
- describe different types of contaminations that can appear in cell cultures
- explain what stem cells are

##### *Competence and skills*

- culture cell lines and perform a transfection of cells
- choose different ways of culture depending on cell type and purpose
- plan a research experiment using mammalian cells

***Judgement and approach***

- choose a suitable cell system to perform different kinds of experiments.

**Course content**

Theoretical and practical introduction to the culture of different types of human and animal cells in the laboratory and how these cells can be transfected to over-express or turn off the expression of different genes.

**Types of instruction**

Lectures, laboratory experiments

***Language of instruction***

The course is given in Swedish but can be given in English if necessary

**Grades**

The grade Pass (G) or Fail (U) is given in this course.

**Types of assessment**

The examination will take place in the form of a written home exam. A mandatory literature task will also be performed. An attendance rate above 80% is also required. If a student due to sick leave can not fulfill the compulsory attendance or fulfill the compulsory activities the doctoral student needs to perform corresponding substitutional tasks according to the course leaders instructions.

If a doctoral student, who has failed twice in the same examination part, wishes to change the examiner before the next examination, such a request should be submitted in writing to the department and must be approved unless there are special reasons to the contrary (HF ch. 6 § 22).

**Course evaluation**

Course evaluation takes place in writing using Sahlgrenska Academy's common course evaluation questions and orally in the form of discussion between students and course leaders. The teacher responsible for the course compiles the course evaluation and makes suggestions for developing the course. The result and any changes in the course structure are communicated both to the students who completed the assessment and to the students who will start the course.