

Experimental Cell Biology

Title	Experimental Cell Biology
Semester	F2024
Master programme in	Molekylær biologi / Chemical Biology / Molecular Health Science
Type of activity	Laboratory Course
Teaching language	English
Study regulation	Read about the Master Programme and find the Study Regulations at ruc.dk Læs mere om uddannelsen og find din studieordning på ruc.dk

REGISTRATION AND STUDY ADMINISTRATIVE

Registration	Sign up for study activities at stads selvbetjening within the announced registration period, as you can see on the Studyadministration homepage. When signing up for study activities, please be aware of potential conflicts between study activities or exam dates. The planning of activities at Roskilde University is based on the recommended study programs which do not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programs, an overlap of lectures or exam dates may occur depending on which courses you choose. There is a maximum of 16 students at this course. Selection criteria:
Number of participants	a) Students at Molecular Health Science will be given first priority. b) If there are more students who wish to take this course, than there are places for, students who have passed the highest ECTS-points will be given priority.

c) Ultimately the spots for this course will be distributed by lottery/
drawing lots.

The Master Programme/Institute reserves the right to cancel the course if
fewer than 8 studentes are registered for the course.

ECTS 5

Responsible
for the
activity

Ole Vang (ov@ruc.dk)

Head of study Lotte Jelsbak (ljelsbak@ruc.dk)

Teachers

Study
administration INM Registration & Exams (inm-exams@ruc.dk)

Exam code(s) U60185

ACADEMIC CONTENT

Overall
objective

The purpose of the course is to teach and train the students experimental
approaches within cell biology that gives students insight into the use of
various cellular models and methods.

The course will give the students hands on and knowledge in selected
techniques in Experimental Cell Biology:

Detailed
description of
content

- Growing and handling mamallian cells
- Evaluate growth (by counting, staining, flow cytometry and microscopy)
- Study cellelular responcees by transfection
- Visualization of cellular components (microscopy)

Course
material and
Reading list

Lecture notes will be posted at moodle.ruc.dk.

Overall plan
and expected
work effort

The course contain

- Lectures: 4 hours

- Student presentations: 3 hours
- Lab work: 72 hours
- Preparation: 56 hours

- In total 135 hours

Format

The course includes formative evaluation based on dialogue between the students and the teacher(s).

Evaluation and feedback Students are expected to provide constructive critique, feedback and viewpoints during the course if it is needed for the course to have better quality. Every other year at the end of the course, there will also be an evaluation through a questionnaire in SurveyXact. The Study Board will handle all evaluations along with any comments from the course responsible teacher.

Furthermore, students can, in accordance with RUCs 'feel free to state your views' strategy through their representatives at the study board, send evaluations, comments or insights from the course to the study board during or after the course.

Programme The specific course schedule will be posted at moodle.ruc.dk.

ASSESSMENT

After completing the course, the students will be able to:

- grow various cell types in vitro
 - select and describe relevant cell biology methods for testing a given problem
 - independently plan and complete experimental work based on standard protocols
 - use good practices related to keeping laboratory journals
- Overall learning outcomes**

- select, discuss, and use digital programs to analyse the data that has been acquired
- plan, complete and analyse assigned experiments using cell biological methods
- analyse complex data structures with relevant mathematical and statistical models/programs.

The course is passed through active, regular attendance and satisfactory participation.

Active participation is defined as:

The student must participate in course related activities (e.g. workshops, seminars, field excursions, process study groups, working conferences, supervision groups, feedback sessions).

Form of examination

Regular attendance is defined as:

- The student must be present for minimum 80 percent of the experimental/practical parts of the course with the developed analysis and interpretation of data in reports..

Satisfactory participation is defined as:

- e.g. oral presentations (individually or in a group), peer reviews, mini projects, test, planning of a course session .

Assessment: Pass/Fail.

Form of Re-examination

Samme som ordinær eksamen / same form as ordinary exam

Type of examination in special cases

The course is passed through active, regular attendance and satisfactory participation.

Examination and assessment criteria

Active participation is defined as real participation in the lab-work, lectures, the student presentations and discussion.

Regular attendance is defined as 80 percent of the parts of the lab work, analysis and interpretation of data in reports.

Following satisfactory participation in the course, the students may

- Select and describe relevant cell biology methods for testing a given problem
- Plan and complete experimental work based on standard protocols
- Perform good practices in keeping laboratory journals
- Select, discuss, and use digital programs to analyse the data that has been acquired
- Analyse complex data structures with relevant mathematical and statistical models/programs

Exam code(s) Exam code(s) : U60185

Course days:

Hold: 1

Experimental Cell Biology (MHS)

time	07-06-2024 13:00 til 07-06-2024 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	28a.2-11 - mødelokale a2 (16)
Teacher	Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time	10-06-2024 08:30 til 10-06-2024 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	28a.2-11 - mødelokale a2 (16)
Teacher	Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 11-06-2024 08:30 til
11-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 12-06-2024 08:30 til
12-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 13-06-2024 08:30 til
13-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 14-06-2024 08:30 til
14-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 17-06-2024 08:30 til
17-06-2024 17:00
forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 18-06-2024 08:30 til
18-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 19-06-2024 08:30 til
19-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 20-06-2024 08:30 til
20-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 21-06-2024 08:30 til
21-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 24-06-2024 08:30 til
24-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)

Experimental Cell Biology (MHS)

time 25-06-2024 08:30 til
25-06-2024 17:00
forberedelsesnorm ikke valgt
forberedelsesnorm D-VIP ikke valgt
location 28a.2-11 - mødelokale a2 (16)
Teacher Ole Vang (ov@ruc.dk)