

Preparation and Testing of Biopharmaceuticals

Title	Preparation and Testing of Biopharmaceuticals
Semester	F2024
Master programme in	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

	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.
Registration	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.
Number of participants	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	Biljana Mojsoska (biljana@ruc.dk) Håvard Jenssen (jenssen@ruc.dk) Frederik Diness (diness@ruc.dk)
Head of study	Lotte Jelsbak (ljelsbak@ruc.dk)
Teachers	
Study administration	INM Studieadministration (inm-studieadministration@ruc.dk)

Exam code(s) U60588

ACADEMIC CONTENT

Overall objective The purpose of the course is to teach the students synthesis approaches and make them able to choose suitable methods for peptide separation and analysis. Allow them to identify critical steps in peptide synthesis through analysis and/or develop interdisciplinary approach in drug development.

The course is a mixture of practical exercises and workshop/lecture confrontation.

Detailed description of content Thematic session in peptide chemistry and drug design, will be covered with lectures, workshop and lab sessions.

Course material and Reading list The curriculum will be made available on moodle

- lectures 16 hrs
- student presentations 8 hrs
- practical exercises 24 hrs
- report writing 40 hrs
- preparation 46 hrs
- Oral exam 0,25 hr

Overall plan and expected work effort

- total 135 hrs

The courses are each 5 ECTS and are case based. It is intended to have a total of 36 teaching hours and 1 extra slot each for introduction and preparation of the exam. So a total of 41 hours.

Format

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

The first lecture is a 2 hour introduction to the course and a brief overview of the different cases and how the course is structured and the exam is planned.

Programme

In week 2 the idea is to introduce a theoretical background of the first case and prepare the students for practical work that are related to the case in the coming 4 hours of practical work which could be a presentation of papers or start a lab. Therefore, we always start with a theoretical background (2 hours) and then we apply our knowledge in a hands on exercise (4 hours). We use two weeks for each case, and a total of 3 cases.

ASSESSMENT

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

Overall learning outcomes

- describe classical peptide and peptidomimetic synthesis
- demonstrate knowledge on the principles of peptide analytical and separation techniques
- interpret peptides purification and analysis data
- utilize software analysis to determine success of synthesis, identification and quantification of peptides.

The course is passed through active and satisfactory participation.

Form of examination

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).

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
Type of examination in special cases

Samme som ordinær eksamen / same form as ordinary exam

Active participation is defined as:

- The student must participate in course related activities, eg. both lab and lecture sessions

Satisfactory participation is defined as:

- oral presentations (individually or in a group) for fellow students, focusing on methodologies covered in the course in the form of mini projects, planning/preparations for the lab sessions.
- Student presentations will be reviewed by the fellow students, peer reviews, with critical and constructive comments.
- approval of three lab reports

Examination and assessment criteria

Assesment criteria: to which degree the student is able to:

- describe classical peptide and peptidomimetic synthesis
- demonstrate knowledge on the principles of peptide analytical and separation techniques
- interpret peptides purification and analysis data
- utilize software analysis to determine success of synthesis, identification and quantification of peptides.

Exam code(s) Exam code(s) : U60588

Course days:

Hold: 1

Preparation and Testing of Biopharmaceuticals (CB)

time 05-02-2024 10:15 til
05-02-2024 12:00
location 28b.0-05 - lille teorirum (20)
Teacher Håvard Jenssen (jenssen@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 07-02-2024 08:15 til
07-02-2024 12:00
location 28b.0-01 - store teorirum (30)
Biljana Mojsoska (biljana@ruc.dk)
Teacher Håvard Jenssen (jenssen@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 12-02-2024 14:15 til
12-02-2024 16:00
location 28b.0-05 - lille teorirum (20)
Frederik Diness (diness@ruc.dk)
Teacher Håvard Jenssen (jenssen@ruc.dk)
Biljana Mojsoska (biljana@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 19-02-2024 14:15 til
19-02-2024 16:00
location 28b.0-05 - lille teorirum (20)
Teacher Håvard Jenssen (jenssen@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 21-02-2024 08:15 til
21-02-2024 12:00
location 28b.0-05 - lille teorirum (20)

Biljana Mojsoska (biljana@ruc.dk)
Teacher Frederik Diness (diness@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 26-02-2024 14:15 til
26-02-2024 16:00
location 28b.0-05 - lille teorirum (20)
Teacher Frederik Diness (diness@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 28-02-2024 08:15 til
28-02-2024 12:00
location 28b.0-05 - lille teorirum (20)
Biljana Mojsoska (biljana@ruc.dk)
Teacher Frederik Diness (diness@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 04-03-2024 14:15 til
04-03-2024 16:00
location 28b.0-05 - lille teorirum (20)
Biljana Mojsoska (biljana@ruc.dk)
Teacher Frederik Diness (diness@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 06-03-2024 08:15 til
06-03-2024 12:00
location 28b.0-05 - lille teorirum (20)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 11-03-2024 14:15 til
11-03-2024 16:00
location 28b.0-05 - lille teorirum (20)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 13-03-2024 08:15 til
13-03-2024 12:00
location 28b.0-05 - lille teorirum (20)
Frederik Diness (diness@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 18-03-2024 12:15 til
18-03-2024 14:00
location 28b.0-01 - store teorirum (30)
Teacher Frederik Diness (diness@ruc.dk)
Biljana Mojsoska (biljana@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 20-03-2024 10:15 til
20-03-2024 12:00
location 28b.0-05 - lille teorirum (20)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Frederik Diness (diness@ruc.dk)
Biljana Mojsoska (biljana@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 25-03-2024 12:15 til
25-03-2024 14:00
location 28b.0-05 - lille teorirum (20)
Teacher Frederik Diness (diness@ruc.dk)
Biljana Mojsoska (biljana@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 03-04-2024 08:15 til
03-04-2024 12:00
location 28b.0-05 - lille teorirum (20)
Frederik Diness (diness@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 08-04-2024 12:15 til
08-04-2024 14:00
location 28b.0-01 - store teorirum (30)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 10-04-2024 08:15 til
10-04-2024 12:00
location 28b.0-05 - lille teorirum (20)
Frederik Diness (diness@ruc.dk)
Teacher Håvard Jenssen (jenssen@ruc.dk)
Biljana Mojsoska (biljana@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 15-04-2024 14:15 til
15-04-2024 16:00
location 28b.0-05 - lille teorirum (20)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 17-04-2024 08:15 til
17-04-2024 12:00
location 28b.0-01 - store teorirum (30)

Frederik Diness (diness@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 22-04-2024 12:15 til
22-04-2024 14:00
location 28b.0-01 - store teorirum (30)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 24-04-2024 08:15 til
24-04-2024 12:00
location 28b.0-05 - lille teorirum (20)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 29-04-2024 14:15 til
29-04-2024 16:00
location 28b.0-01 - store teorirum (30)
Frederik Diness (diness@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Håvard Jenssen (jenssen@ruc.dk)

Preparation and Testing of Biopharmaceuticals (CB)

time 01-05-2024 08:15 til
01-05-2024 12:00
location 28b.0-01 - store teorirum (30)
Håvard Jenssen (jenssen@ruc.dk)
Teacher Biljana Mojsoska (biljana@ruc.dk)
Frederik Diness (diness@ruc.dk)