

# Host-Pathogen Interactions

Title	Host-Pathogen Interactions
Semester	F2025
Master programme in	Chemical Biology / Molecular Health Science
Type of activity	Course
Teaching language	English

Study regulation

Read about the Master Programme and find the Study Regulations at [ruc.dk](http://ruc.dk)

Læs mere om uddannelsen og find din studieordning på [ruc.dk](http://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

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Exam code(s) U60183

## ACADEMIC CONTENT

**Overall objective** The aim of the course is to introduce the basic molecular and cellular mechanisms involved in host-pathogen interactions and infectious disease.

**Detailed description of content** The course consists of a mixture of lectures and colloquia with student presentations of research papers, discussions of scientific literature, and may involve group work and peer-feedback.

It is organized around a number of themes within microbial pathogen host-interactions that may be Quorum-sensing, biofilm, virulence mechanisms, microbiome in health and disease, chronic infections, treatment of bacterial infections, antimicrobial resistance.

**Course material and Reading list** Scientific peer-reviewed literature (Research papers) and overview/review literature (Review papers).

See Moodle for details

5 ECTS corresponds to 135 hours

**Overall plan and expected work effort**

- Lectures 16 hrs
- Colloquia 16 hrs
- Preparation 103 hrs

**- Total 135 hrs**

**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 Detailed program will be available in Moodle.

## ASSESSMENT

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

- Overall learning outcomes
- describe physiological processes and pathological mechanisms in relation to selected infectious diseases and treatment of these
  - discuss key issues and research in specific areas of host-pathogen interactions
  - extract relevant knowledge from scientific review articles
  - critically analyze new original scientific literature, including interpret and assess of experimental data and hypotheses within the subject area of the course
  - give oral presentations to fellow students of scientific hypotheses, results and interpretations
  - disseminate knowledge from scientific review articles in a clear and comprehensible manner in accordance with scientific requirements and standards
  - reflect on the latest scientific hypotheses and experiments within the infectious disease field
  - set up a relevant problem and formulate a testable hypothesis, as a starting point for a thesis project related to the course's academic area

The course is passed through active, regular attendance 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).

Regular attendance is defined as:

- The student must be present for minimum 80 percent of the lessons.

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.

Individual written take-home assignment

The character limit of the assignment is: 24,000-48,000 characters, including spaces.

The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.

Form of Re-examination

The duration of the take-home assignment is 7 days and may include weekends and public holidays.

Assessment: Pass/Fail.

Type of examination in special cases

Satisfactory participation is defined as (1) orally presenting and discussing at least 3 research-papers, (2) through active participation in discussions of presented papers, and (3) by preparing and providing constructive feedback to at least 3 research papers presented by other students.

Examination and assessment criteria

Students will be assessed by their ability to

- describe physiological processes and pathological mechanisms in relation to selected infectious diseases and treatment of these.
- discuss key issues and research in specific areas of host-pathogen interactions
- extract relevant knowledge from scientific review articles

- critically analyze new original scientific literature, including interpret and assess of experimental data and hypotheses within the subject area of the course
- give oral presentations to fellow students of scientific hypotheses, results and interpretations
- disseminate knowledge from scientific review articles in a clear and comprehensible manner in accordance with scientific requirements and standards

students will for the re-exam

Do a Individual written take-home assignment

the students will be assessed by the same assessment criteria as to the ordinary exam and furthermore have to live up til formel requirements

The character limit of the assignment is: 24,000-48,000 characters, including spaces.

The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.

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