

# Project-oriented Internship

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| Title               | Project-oriented Internship                                                                                                                                                                       |
| Semester            | F2024                                                                                                                                                                                             |
| Master programme in | Physics and Scientific Modelling                                                                                                                                                                  |
| Type of activity    | Project oriented internship                                                                                                                                                                       |
| Teaching language   | English                                                                                                                                                                                           |
| Study regulation    | Read about the Master Programme and find the Study Regulations at <a href="https://ruc.dk">ruc.dk</a><br>Læs mere om uddannelsen og find din studieordning på <a href="https://ruc.dk">ruc.dk</a> |

## REGISTRATION AND STUDY ADMINISTRATIVE

|                              |                                                                                                                                                                                                                                                                                                                                                    |
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|                              | Please be aware of the approval requirements for a project-oriented internship. <a href="#">You can read more about the approval process here</a>                                                                                                                                                                                                  |
| Registration                 | Tilmelding sker via <a href="#">STADS-Selvbetjening</a> indenfor annonceret tilmeldingsperiode, som du kan se på <a href="#">Studieadministrationens hjemmeside</a><br><br>Registration through <a href="#">STADS-Selvbetjening</a> within the announced registration period, as you can see on the <a href="#">Studyadministration homepage</a> . |
| Number of participants       |                                                                                                                                                                                                                                                                                                                                                    |
| ECTS                         | 15                                                                                                                                                                                                                                                                                                                                                 |
| Responsible for the activity | Studieleder for Fysik ( <a href="mailto:fys-sl@ruc.dk">fys-sl@ruc.dk</a> )                                                                                                                                                                                                                                                                         |
| Head of study                | Studieleder for Fysik ( <a href="mailto:fys-sl@ruc.dk">fys-sl@ruc.dk</a> )                                                                                                                                                                                                                                                                         |
| Teachers                     |                                                                                                                                                                                                                                                                                                                                                    |
| Study administration         | INM Registration & Exams ( <a href="mailto:inm-exams@ruc.dk">inm-exams@ruc.dk</a> )                                                                                                                                                                                                                                                                |
| Exam code(s)                 | U60201                                                                                                                                                                                                                                                                                                                                             |

## ACADEMIC CONTENT

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall objective | The purpose of the project-oriented internship is that the student engages and works in a professional context where physics and/or scientific modelling play a role. The student will achieve experience with using the thinking and methods of physics and/or scientific modelling in a practical context. The student will write a project based on the internship which can either report the results of the work done during the internship in a scientific manner or report the work along with an analysis and reflection on the role of physics and scientific modelling in the workplace in question. |
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|                                 |                                                                                                                                                                                                                                                                                                                                                  |
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| Detailed description of content | The student is responsible for finding an internship, and for the completion of the task agreed with the place of internship and the university. The student will be assigned a supervisor and the internship agreement must be approved by the Study Board in advance. The internship runs parallel with the master thesis in the 3rd semester. |
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|                                  |                                                                                                    |
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| Course material and Reading list | There is no fixed syllabus. Students themselves select relevant literature for their project work. |
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### **Internship / 405 hours**

|                                       |                                                   |
|---------------------------------------|---------------------------------------------------|
| Overall plan and expected work effort | • Exam and assessment: 0,5 hour                   |
|                                       | • Supervision: 7-8 hours                          |
|                                       | • Literature search and report writing: 100 hours |
|                                       | • Time at the internship host: 287 hours          |
|                                       | • Exam preparation: 10 hours                      |

### **Format**

|                         |                                                                                                                                                                                                                                                                                                                            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Evaluation and feedback | All projects' processes will include ongoing dialogue-based (oral) evaluation between the students and the supervisor. Both students and supervisors are expected to provide constructive feedback and viewpoints during the process. Feedback concerning the academic content and progression, process and collaboration. |
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Every other year when the projects are handed in, there will also be an evaluation through a questionnaire in SurveyXact. The Study Board will handle all evaluations along with any comments from the head of study.

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 their project process to the study board during or after the project process.

## Programme **ASSESSMENT**

After completing the project the student will be able to

- present and reflect on the experience of working in an institution/ company engaged in teaching, research, development or operation by means of physics and/or scientific computing
- argue which experimental/theoretical/analytical methods that are relevant to the selected research question including the strengths and weaknesses of the methods applied
- plan and perform practical tasks by applying the models, methods and fundamental theories used in physics, mathematics and/or scientific computing according to the opportunities offered in a specific organizational context
- analyse and present results achieved on the basis of the relevant theories and methods to selected target groups
- reflect critically on the practices of a specific organization participate actively and autonomously in solving assignments in organizations where mathematical physical capabilities and skills contribute to creating value for the organization
- enter a dialogue with other professional groups on how their own knowledge and skills can contribute to a qualified execution of tasks
- discuss the significance of the results achieved critically based on the relevant methods and theories and to relate the results to selected scientific literature in the area.

Overall  
learning  
outcomes

Oral exam based on project oriented internship.

The character limit of the written product is: 24,000-240,000 characters, including spaces.

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

Form of examination

Time allowed for exam including time used for assessment: 30 minutes.

The assessment is an assessment of the written product and the oral performance.

Writing and spelling skills in the report are part of the assessment.

Permitted support and preparation materials for the oral exam: All.

Assessment: 7-point grading scale.

Moderation: Internal co-assessor.

Form of Re-examination

Samme som ordinær eksamen / same form as ordinary exam

Type of examination in special cases

Oral project exam based on project oriented internship report.

The assessment criteria of the written part

Examination and assessment criteria

- argue which experimental/theoretical/analytical methods that are relevant to the selected research question including the strengths and weaknesses of the methods applied
- plan and perform practical tasks by applying the models, methods and fundamental theories used in physics, mathematics and/or scientific computing according to the opportunities offered in a specific organizational context
- analyse and present results achieved on the basis of the relevant theories and methods to selected target groups

- discuss the significance of the results achieved critically based on the relevant methods and theories and to relate the results to selected scientific literature in the area.

The assessment of the oral exam is based on the student's ability to meet the criteria mentioned above and their ability to

- clearly present and communicate the content of the project-oriented internship
- engage in a professional dialogue and discussion with the supervisor and co assessor

Furthermore, whether the performance meets all formal requirements in regard to both for the written og oral exam

Exam code(s) Exam code(s) : U60201

## Course days:

**Hold: 1**

### **Project-oriented Internship - Hand-in of project**

|                         |                                          |
|-------------------------|------------------------------------------|
| time                    | 29-05-2024 10:00 til<br>29-05-2024 10:00 |
| forberedelsesnorm       | ikke valgt                               |
| forberedelsesnorm D-VIP | ikke valgt                               |

### **Project-oriented Internship - Project examination**

|                         |                                          |
|-------------------------|------------------------------------------|
| time                    | 17-06-2024 08:15 til<br>28-06-2024 18:00 |
| forberedelsesnorm       | ikke valgt                               |
| forberedelsesnorm D-VIP | ikke valgt                               |

## **Project-oriented Internship - Project reexamination**

time 01-08-2024 08:15 til  
30-08-2024 18:00

forberedelsesnorm ikke valgt

forberedelsesnorm ikke valgt  
D-VIP

### **The common study regulations § 18, 5:**

Content A student who has failed to pass an ordinary project examination is automatically registered for the re-examination. The student is entitled to make changes to the failed project report. The project report must be submitted no later than 14 days after the date for the ordinary project examination.