

Basic Project 3: Natural Sciences and Theory of Science

About the course

subject	Den internationale naturvidenskabelige bacheloruddannelse
Activity type	basic project
Teaching language	English
Registration	<p>Students will be registered automatically, but have to confirm this registration by signing up for exam as a group. If you have to sign up for the project again, please contact inm-exams@ruc.dk.</p> <p>Remember to sign up for the Prerequisites for participation in the exam when signing up</p>
Detailed description of content	<p>The project should be based on a research question that allows reflections on the nature of natural science, i.e., where natural science is studied as historical, cultural, or societal phenomenon.</p> <p>The project work thus focus on philosophical analysis of natural science, where e.g., epistemological, historical, educational, or ethical aspects of natural science are studied. The projects can be said to be "about" science. Natural science is understood to be the subjects affiliated with Nat Bach, including chemistry, computer science, environmental biology, geography, mathematics, medical biology, molecular biology and Tek Sam.</p> <p>You can read about the study programme, project work, studycurriculum, rules and more at the intranet</p>
Project Process	<p>The project is problem-oriented, exemplary and participant-led. The project work must develop the student's skills in applying scientific theories and methods during work with a limited academic field. The project work involves an optional and independent formulation of a problem, so that the project provides an exemplary realization of the purpose of the project in question. The project work concludes with the preparation of a project report.</p> <p>As an integrated element of the project, the student's competence in academic communication is developed in a scientific context through dissemination in oral lectures, via posters, in the project report or possibly. in another form of written communication to a specific audience.</p>
Expected work effort (ECTS-declaration)	<p>Project work is 15 ECTS corresponding to a 405 hour workload. Nat Bach has issued a guide for the workload during the semester intranet-side</p> <ul style="list-style-type: none">• Start-up/group formation: 28 hours• Research question seminar: 4 hours• Mid-term evaluations: 3 hours• Internal evaluation: 3 hours• Presentation seminar: 4 hours• Project exam: 2 hours• Group supervision (incl. Practical help in ex lab/field): ca. 25 hours• in total = 69 hours• Report writing: 85 hours• Literature search and processing in group: 115 hours• Practical work e.g. lab, model design, analysis, fieldwork: 110 hours• Exam preparation: 25 hours <p>- In total: 405 hours</p>
Head of studies/academic coordinator	Martin Niss (maniss@ruc.dk)
Administration of exams	INM Registration & Exams (inm-exams@ruc.dk)

Responsible for the activity	Martin Niss (maniss@ruc.dk) Kristine Niss (kniss@ruc.dk)
ECTS	15
Learning outcomes and assessment criteria	<ul style="list-style-type: none"> • Knowledge of scientific theory aspects of subjects within the Natural Sciences • Knowledge of philosophical, historical, didactic and ethical aspects of Natural Sciences • Knowledge of natural scientific concepts, theories and methods relevant to the chosen issue • Skills to be able apply relevant empirical methods, including qualitative methods when applicable • Skill to be able to select and draw upon relevant literature, including scientific-theoretical literature and relevant original scientific sources • Skills to be able to describe an issue within the Natural Sciences in such a way that it becomes accessible to scientific-theoretical analysis and reflection • Skills to be able to communicate one's own investigations of and reflections on Natural Sciences in conformity with academic norms and standards, both in a project report as well as in other written or oral communication • The competence to be able to formulate and investigate a relevant research question, both independently and in cooperation with others, that illuminates the Natural Sciences from a scientific-theoretical perspective • The competence to be able to analyze Natural Sciences and the language of Natural Sciences based on philosophical, historical, didactic or ethical perspectives • The competence to be able to critically consider the strengths and weaknesses of chosen theories and methods • The competence to be able to in organize and manage a project within defined frameworks and with in deadlines
Overall content	The purpose of the project is for the student to gain experience with scientific-theoretical analysis of natural science as a historical, cultural and societal phenomenon through working with a representative example.
Prerequisites for participation in the exam	<p>Approval of the project work is contingent on the student having actively and satisfactorily participated in the project, including the following elements of the project work:</p> <ul style="list-style-type: none"> • The project formation process including the study portfolio as well as selection and delimitation of the project's problem • Problem statement seminar, where the problem statement is presented and discussed • The halfway evaluation, including the drafting of the written halfway evaluation presentations as well as in the group's opponent role at the halfway evaluation • The group's preparation of the project report and any other products • The group's project presentation and opponent role at the internal final evaluation
Teaching and working methods	The project is problem-oriented, exemplary and participant-led. The intention of the project work is to develop the student's proficiency in applying natural science theories and methods while working on a delimited academic area. The project work entails the student independently formulating a problem statement of their own choosing so that the project provides an exemplary realisation of the purpose of the project in question. The project work concludes with the preparation of a project report. An integrated part of the project is to develop the student's competences in academic communication in a scientific context through sharing knowledge via oral presentations, posters, the project report or some other form of written communication aimed at a specific target group. Over the course of the project work, the group will undergo an evaluation together with the supervisor in connection with the halfway evaluation and once more at the end of the project.
Type of activity	Project
Form of examination (p1)	<p>Oral group exam for the participants in the project.</p> <p>The starting point for the oral exam is the project report and any supplementary material. The exam includes individual presentations within one of the topics selected by the examiner, which will be communicated to the students no later than 3 working days prior to the exam. Each individual presentation may last up to 5 minutes. A dialogue between the student(s) and the assessors about the project, will be conducted after the individual presentation(s).</p> <p>There may be posed questions related to the subject area of the project report.</p> <p>The assessment is individual and is based on the project report, any additional material and the student's oral performance.</p> <p>Permitted group size: 3-7 students.</p> <p>The character limits of the project report are: For 3 students: 24,000-192,000 characters, including spaces. For 4 students: 24,000-192,000 characters, including spaces. For 5 students: 24,000-204,000 characters, including spaces. For 6 students: 24,000-204,000 characters, including spaces. For 7 students: 24,000-204,000 characters, including spaces. The character limits include the cover, table of contents, summary, bibliography, figures and other illustrations, but exclude appendices.</p> <p>The project report must include a summary in English, that is part of the assessment.</p> <p>Time allowed for the exam including time used for assessment is for: 3 students: 75 minutes. 4 students: 90 minutes.</p>

5 students: 105 minutes.
6 students: 120 minutes.
7 students: 135 minutes.

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

Permitted support and preparation materials at the oral exam: All

Assessment: 7-point grading scale
Moderation: Internal co-assessor.

Form of Re-examination
(p1)

Samme som ordinær eksamen

Exam code(s) Exam code(s) : U26532

Course days:

Hold: 1

BP3 Project Formation (NIB)

time 02-09-2024 12:15 til
 02-09-2024 16:00

location 11.2-047 - gl. natfagsal (65)

Teacher Kristine Niss (kniss@ruc.dk)

BP3 Project Formation (NIB)

time 04-09-2024 12:15 til
 04-09-2024 16:00

location 11.2-047 - gl. natfagsal (65)

Teacher Kristine Niss (kniss@ruc.dk)

BP3 Project Formation (NIB)

time 05-09-2024 08:15 til
 05-09-2024 16:00

location 11.2-047 - gl. natfagsal (65)

Teacher Kristine Niss (kniss@ruc.dk)

BP3 Project Formation (NIB)

time 06-09-2024 12:15 til
 06-09-2024 16:00

location 11.2-047 - gl. natfagsal (65)

Teacher Kristine Niss (kniss@ruc.dk)

BP3 Deadline for project descriptions with indication of wishes for supervisor (NIB)

time	06-09-2024 17:00 til 06-09-2024 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Deadline for signing up for projects at STADS (NIB)

time	10-09-2024 23:59 til 10-09-2024 23:59
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Project Formation (NIB)

time	11-09-2024 12:15 til 11-09-2024 17:00
location	11.2-047 - gl. natfagsal (65)
Teacher	Kristine Niss (kniss@ruc.dk)

BP3 Research question seminar (NIB)

time	25-09-2024 12:15 til 25-09-2024 18:00
location	09.2-009 - teorilokale (60)
Teacher	Kristine Niss (kniss@ruc.dk)

BP3 Midterm Evaluation (NIB)

time	16-10-2024 08:15 til 01-11-2024 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Internal Evaluation (NIB)

time	03-12-2024 08:15 til 05-12-2024 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Project Hand-in (NIB)

time	18-12-2024 10:00 til 18-12-2024 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Presentation seminar (NIB)

time	17-01-2025 12:15 til 17-01-2025 16:00
location	03.1-s03 - auditorie a (120)
Teacher	Kristine Niss (kniss@ruc.dk)

BP3 Project examination (NIB)

time	23-01-2025 08:15 til 31-01-2025 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

BP3 Project reexamination (NIB)

time	03-02-2025 08:15 til 28-02-2025 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

Content

The common study regulations § 18, 5:

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