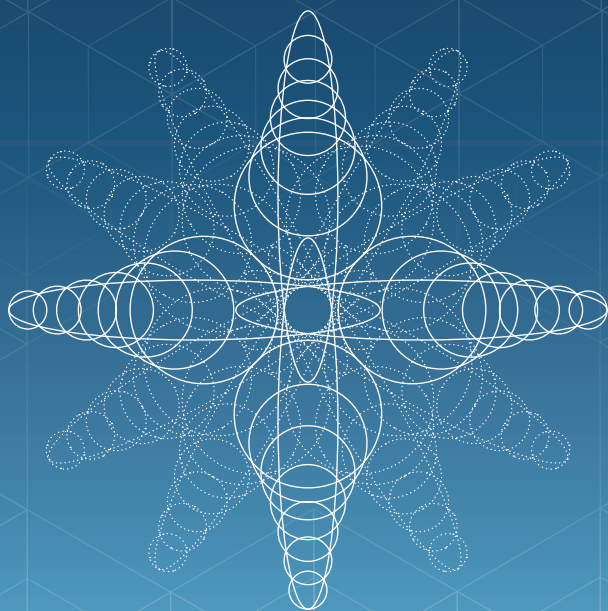


# Core values for education at the Faculty of Natural Sciences



AARHUS UNIVERSITY



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During their studies, our students acquire academic and general competencies enabling them to contribute with science-based solutions to society.

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## INTRODUCTION

The Faculty of Natural Sciences at Aarhus University (NAT) is home to more than 3,300 Bachelor's and Master's degree students. Students are driven by their curiosity about the natural sciences, and immerse themselves in the faculty's degree programmes in close interaction with their teaching staff. The degree programmes cover both classical science disciplines and interdisciplinary degree programmes.

During their studies, our students acquire academic and general competencies enabling them to contribute with science-based solutions to society, e.g. in connection with global challenges within climate, biodiversity, health, sustainable materials and digitalisation.

The degree programmes at NAT entail close integration between research and education; teaching is provided by internationally recognised researchers, and students are involved in research projects during their studies. The degree programmes are supported by a well-functioning and proactive administration.

## OBJECTIVE

These core values put into words the basic values and practices forming the common foundation for the work and day-to-day life on all degree programmes at NAT. Our values also set benchmarks for our shared ambition and for the development of degree programmes, teaching, teaching staff and student life. They can be used as a guide for individual lecturers and students, and in discussions and implementation of strategic initiatives and study administrative initiatives at the faculty.

Our values are an expression of what characterises our teaching, teaching staff, students and study environment. They are thus a guideline for day-to-day teaching development, for strategic development of degree programmes, and for lecturers' competency development. They are also a frame of reference in dialogue with current and future students, as well as with current and future external partners and stakeholders.

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## **Vision for degree programmes at Natural Sciences**

Based on scientific research, we educate academically strong, curious and committed students. Graduates can identify and solve scientific issues, contribute to the sustainable societal development, drive labour-market developments in the present and the future, and ensure natural science education for future generations.

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## DEGREE PROGRAMMES AT NAT:

- Cover the entire field of natural sciences, with both classical and interdisciplinary degree programmes, and with a strong link between teaching and research.
  - Are founded on basic scientific knowledge and methodology, which provides students with a solid academic platform.
  - Ensure that all students acquire mathematical, computational and digital skills, as well as critical thinking, problem-solving, collaboration and communication skills.
  - Ensure that students encounter other disciplines than their primary field of study, and enable students to pursue their own academic interests through specialisation and elective courses, and to engage in in-depth research, e.g. through their extensive Master's theses.
  - Are designed to ensure that the transition from upper secondary education to university is supported, has clear progression and coherence, and helps facilitate the transition to the labour market.
  - Are supported by study administrative processes and systems dedicated to planning and communication, and are developed continuously in close collaboration with students through systematic workflows in local education committees, board of studies and studies administration at the faculty.
  - Assure quality through dialogue with employers from both the public and private sectors, so that graduates acquire the academic and general competencies in high demand now and in the future.
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## **Vision for teaching at Natural Sciences**

Teaching is based on student learning, and teaching methods are varied, with good opportunities for participation for all students.

Priority is on active interaction between teaching staff and students. Clear integration between teaching and the latest research ensures high international quality.

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## TEACHING AT NAT:

- Takes outset in the scientific method, linking theory and practice and strengthening the development of critical thinking among students.
  - Trains students to have a reflective, analytical and critical approach to scientific issues and research results.
  - Involves students in research-related activities from an early stage in their studies and provides them with knowledge and access to state-of-the-art research equipment.
  - Is varied, focusing on the students, and reflecting working methods and forms of examination that are relevant for the individual subject.
  - Is supported by textbooks, up-to-date research literature and digital learning technology, so that students have good opportunities to work independently with their subject, also outside scheduled teaching.
  - Gives high priority to the physical encounter between teaching staff and students, with many scheduled lessons and focus on ensuring that all students have an opportunity to participate in teaching in smaller classes and to collaborate and engage in regular feedback with teaching staff and fellow students.
  - Is supported by administrative systems and processes with constant attention to student needs.
  - Teaches students to work independently and across disciplines with experimental work, research methods and data processing as an integrated part.
  - Clarifies the relevance of degree programmes and ensures a good transition between university and the labour market, with activities in which students can bring their scientific knowledge and skills into play in societal and business-related issues.
  - Is organised so that it ensures accessibility and participation opportunities for as many students as possible.
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## **Vision for teaching staff at Natural Sciences**

Lecturers are engaged in both research and teaching, and are recognised for both.

They regularly participate in competency development and dialogue about teaching, and collaborate with students and colleagues on the organisation, development and quality assurance of teaching.

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## TEACHING STAFF AT NAT:

- Are researchers themselves within the subject area they teach.
  - Are available to students both in scheduled teaching and in informal contact in the research environment. Students encounter both Danish and international teaching staff, ranging from highly experienced researchers to research students and student teachers of the same age.
  - Engage in collegial dialogue and collaboration on the organisation and development of teaching activities. The course responsible person ensures coordination between teaching staff and that the teaching staff is offered sparring. Moreover, they make sure that there is a good connection between the individual course and the degree programme as a whole.
  - Focus on student learning and academic development and pay attention to diversity among students and fellow lecturers.
  - Involve students in dialogue about the academic content and the organisation and quality of teaching, both on an ongoing basis and as part of the quality assurance processes supported by various systems.
  - Have good opportunities for pedagogical competency development and are recognised for their contribution to teaching, degree programme development and student life on an equal footing with their contributions to research.
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## **Vision for students and student life at Natural Sciences**

Students are academically curious and participate as active co-creators of their student life, both inside and outside the classroom. They receive academic and study-related guidance to help navigate independently in their studies. Student life is organised with many scheduled lessons in a campus-based study environment. Combined with good opportunities for social and academic activities, this study environment provides an academic home during the students' studies.

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## STUDENT LIFE AT NAT MEANS STUDENTS:

- Prioritise their studies and are co-creators of teaching through preparation and active participation. Students familiarise themselves with their studies and engage in constructive dialogue about the development of teaching and degree programmes.
  - Are co-creators of an active student life on campus, with student associations as well as social and academic activities providing good opportunities for both formal and informal contact with fellow students and teaching staff.
  - Encounter an accessible and communicative study administration, which prioritises student needs in its processes.
  - Experience a natural and manageable transition from upper secondary education to university. They experience academic and social life that is based on their own situation and that supports them in their academic and social development, e.g. through subject-specific guidance, active tutors, study groups, mentoring and project supervision.
  - Work progressively more independently and plan their own preparation and participation in class and in project work.
  - Are part of an international study and research environment with good opportunities to participate in research-integrated activities or international exchange.
  - Consider their education as relevant for society and gain awareness of their own academic and general competencies, which they can use in their transition to the labour market.
  - Meet and contribute to an inclusive and safe study environment with a respectful tone, where teaching, physical surroundings and social life include diversity among students and teaching staff.
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These values were made by the Forum for Education at NAT. They are also based on input from the individual education committees gathered at a workshop with the heads of degree programmes of Bachelor's and Master's degree programmes at the faculty, as well as chairs and student representatives of the boards of studies at NAT.