

# GSNS ACTION PLAN 2022-23

## Introduction

In accordance with the University Act (Universitetsloven), Aarhus University evaluated its five graduate schools in 2021, including the Graduate School of Natural Sciences (GSNS). The evaluation included the questionnaire survey study “Quality in the PhD process” (KIP21) conducted in January 2021 and a formal review, including a site visit by an international review panel in September 2021. Based on the recommendations of the review panel and the results of the survey study, GSNS presents the following action plan for further developing the graduate school in 2022-23.

Both the review report and the survey underline that GSNS delivers PhD education at a high international level. The PhD students are generally part of strong research environments, and by far the most PhD students receive excellent supervision and are satisfied with the quality of their research education. However, the report and survey also point to elements that can be improved. Special challenges include student well-being and the integration of many study elements (research, dissemination and teaching, research environment change, and 30 ECTS of educational elements) in a busy and, by international standards, short PhD programme. The review report also points to limited student representation and involvement, and unclear roles and appointment procedures for our graduate school committees.

GSNS will focus actions within six specific themes:

1. Student recruitment and onboarding
2. GSNS committees and student representation
3. Management of teaching workload
4. Integration of educational elements
5. Independent initiatives to support student well-being
6. The general PhD study framework

GSNS has the ambition to improve the PhD students’ well-being and mitigate existing challenges with stress, insecurity and loneliness. The fifth theme introduces new initiatives to support this ambition, but GSNS sees all six themes as important for improving well-being. Student well-being is hence considered a cross-cutting theme because it relates directly to the working culture and decision-making within the school. The six themes and the specific actions are described in the following pages.

## Theme 1: Student recruitment and onboarding

### Goals

GSNS must be an international graduate school for PhD studies, with a diverse group of highly talented PhD candidates. GSNS must support national and international mobility of research talents.

### Actions

**1.1** Diversity varies significantly among the GSNS programmes, particularly when focussing on diversity in gender and nationality. GSNS will together with each programme define specific goals, and explore new possibilities (e.g. additional targeted recruitment campaigns) to attract a wider group of applicants to the programme, while always aiming at attracting the most qualified candidates.

**1.2** GSNS will review and adjust the strategy for announcement of PhD calls. Focus will be on expanding the use of personal networks, targeted campaigns, and social media to promote research areas and PhD opportunities.

**1.3** GSNS will take initiative to improve recruitment from other Danish universities. Initiatives will be discussed and coordinated with other Danish universities.

**1.4** GSNS will increase the awareness and ease the use of screening grants, with the aim to strengthen recruitment of talented students from a wider group of nations and universities.

**1.5** GSNS will develop an onboarding and support programme, which provides continuous guidance for PhD students in both the initial and later phases of the PhD. The programme should contain educational elements that count towards the 30 ECTS quota.

**1.6** Furthermore, GSNS will simplify schemes for internal PhD co-financing to remove existing economic barriers for growth of the Graduate School. This initiative aligns with other initiatives at faculty level that aims to secure full PhD funding from external sources (including funding to cover indirect costs for administrative and technical support).

## Theme 2: GSNS committees and student representation

### Goals

The GSNS committees (the PhD committee, the 8 programme committees, and the admissions committee) must have a wide and diverse representation among PhD students and senior staff at different career stages. Members of all committees must have real and visible influence on the future development of GSNS.

### Actions

**2.1** All GSNS committees already have clear procedures for fixed-term election or appointment of members. However, these must become more transparent and well-known, and the path to membership must be clearer for students and senior staff. GSNS will increase communication of procedures on the website and in newsletters.

**2.2** GSNS will increase diversity in committees by developing, communicating, and enforcing specific goals for each committee. In the first step, the admission committee should have gender balance, but GSNS will also work on increasing diversity in the other committees.

**2.3** The PhD committee has elected members (both PhD students and senior staff), and there are clear procedures for the elections. However, volunteer candidates are few, particularly among the PhD students. GSNS will work to make the PhD committee membership more attractive by strengthening and highlighting in communication the influence and responsibility of the committee. GSNS will furthermore work toward widening the representation of the programmes. GSNS will decide and communicate a clear policy for student remunerations to increase and motivate the PhD student representation in the PhD committee and the programme committees.

**2.4** GSNS will work actively to build and support a faculty-wide PhD network, including interdisciplinary activities and mentoring schemes. A faculty-wide PhD Day, arranged and managed by the Faculty with the aid of PhD students, will be developed as part of the network (aligns with action 5.1).

### Theme 3: Management of teaching workload

#### Goals

The 280 hours/year teaching load is an integral part of the work and salary for GSNS students employed at the university. Many students are, according to the survey study, satisfied with the content of this work, but not with the extent of it. GSNS has the goal to increase satisfaction by implementing clear and transparent rules for counting work hours. The rules must be standard across all programmes and must support as equal as possible workloads for students.

#### Actions

**3.1** GSNS will develop standard rules for registering working hours (e.g. teaching or supervision of BSc and MSc students) across all programmes and in alignment with other faculties and Danish universities. GSNS will communicate these rules in order to support alignment of expectations, and work to reduce stress from the teaching workload.

**3.2** GSNS will support more uniform workloads for students. This will be done by sharing best practices among programmes (e.g. on how to involve international PhD students in bachelor courses) while acknowledging differences between programmes, and by collecting and sharing statistics on student workloads.

**3.3** GSNS will facilitate a debate at Faculty level on how the 280 hours/year workload should be used and to what extent. The debate will include experience and practices from other faculties and Danish universities.

## Theme 4: Integration of educational elements

### Goals

The Danish PhD order requires PhD students to collect 30 ECTS of educational elements on top of research activity and teaching. According to the survey study, GSNS students are less satisfied with the selection of PhD courses than PhD students from the other AU graduate schools. GSNS has the goal to increase the satisfaction with PhD courses to at least the level of other AU graduate schools. Furthermore, GSNS aims to mitigate the pressure from the many requirements of the PhD order by increasing alignment, particularly between the educational elements, the research goals, and the international mobility.

### Actions

**4.1** GSNS will review the PhD course catalogue and invest in new courses that support the general qualifications and well-being of PhD candidates, particularly in relation to the onboarding and support programme.

**4.2** GSNS will increase awareness of educational elements other than PhD courses (such as seminars, conference attendance, summer schools, etc) and make it clearer how ECTS for such elements can be obtained.

**4.3** GSNS will increase awareness of national/international PhD courses outside of AU.

## Theme 5: Independent initiatives to support student well-being

### Goal

The four themes above all have actions that are designed to improve well-being among PhD students. However, in order to support these actions GSNS wishes to make better platforms for openly addressing themes like insecurity, stress and loneliness. The aim is to increase awareness among PhD students, supervisors and management, and to strengthen communication on both challenges and useful actions. It is an important goal to reduce the number of students with stress-related sickness and symptoms.

### Actions

**5.1** GSNS will actively support the establishment of a formal PhD network at the Faculty of Natural Sciences. The network must be built and managed by GSNS, but governed and filled with life by the PhD students. It should form basis for interdisciplinary activities and social events, and build on and extend

any networks that already exist at programme level. The network will contribute to arranging the yearly PhD Day.

**5.2** The PhD students are generally satisfied with the relationship with their supervisor, and this provides an opportunity to increase the supervisors' influence on student well-being. GSNS will further strengthen the supervisors' skills for addressing well-being with students, and improving working conditions, insecurity, and social aspects that relate to well-being. GSNS will achieve this via existing supervisor courses and new workshops.

**5.3** GSNS will evaluate and consolidate AU initiatives on early career clarification for PhD students. GSNS will furthermore use the planned PhD network to make career opportunities in the private and public sector visible, and to create valuable links between students and industry.

**5.4** At GSNS, students use the online PhD planner for planning their work in collaboration with supervisors and programme chairs, and for carrying out the mandatory half-yearly evaluations. However, the PhD planner is, despite its name, not a well-functioning planning tool, and GSNS will, with involvement of students and supervisors, evaluate the functionality of the PhD planner and discuss the need for supplementary tools for supporting planning and workload management for PhD students.

## Theme 6: The general PhD study framework

### Goal

The PhD education in Denmark operates under the rules of the national PhD order, which is relatively rigid and has high demands for activities within the limited time of a PhD study. As one of the larger graduate schools in Denmark, GSNS has the ambition and goal to influence future adjustments of the PhD order, with the purpose to maintain and further develop a high-quality PhD education in Denmark.

### Actions

**6.1** GSNS will facilitate debates at school level on the general framework of the PhD studies in Denmark. The debates will be guided by the PhD committee and arranged within the new GSNS PhD network.

**6.2** GSNS will take active part in discussions with other graduate schools at Aarhus University and at the other Danish universities, with the purpose to reach a common understanding of how to further develop the national PhD order.

Recommendation	Theme						Actions
	1	2	3	4	5	6	
In order to develop greater legitimacy, enhancing wide representation is essential. We therefore suggest considering the following actions:							
Formalise appointment of membership of GSNS-committees and on limited terms.							2.1
Develop an action plan for committees, including the local committees, to ensure a more diverse composition (gender, nationality, career stages).							2.2, 2.2
Develop an action plan for ensuring PhD student representation in more committees.							2.3
Develop an action plan for the PhD Committee to have more responsibility.							2.3
In order to safeguard the best research talents and develop on quality and diverse recruitment, we suggest the following actions:							
Use the PhD Committee to inform on best practice for the school.							1.1, 1.2, 1.3, 2.3
Develop an action plan for improving the gender balance among applicants and enrolled students.							1.1
Increase the number of screening grants for international students.							1.4
Develop a policy for focused international announcements of PhD calls.							1.1, 1.2
Develop an action plan for enrolling students from other Danish universities.							1.3
Develop a plan for revision of the study structure, to guarantee that the A-exam for 3+5/4+4 reflects a regular MSc exam, which will provide a safety net for students who do not complete their PhD study.							See note in table caption
In order to enhance and widen the curriculum, we suggest the following actions:							
Develop a plan to secure the awareness of available courses at AU, in Denmark as well as internationally (including summer schools).							4.2, 4.3
Develop a plan to secure awareness that conference attendance may be accepted as course activity							4.2
In order to raise awareness about balancing time between mandatory work and research, we suggest the following actions:							
Consider the required frequency of assessment reports and seek to ensure that students and supervisors are motivated to use the report as a management tool for the PhD project.							5.4
Develop a plan to ensure that teaching load becomes more even among students throughout the Faculty.							3.1, 3.2
Develop a Faculty policy on a realistic estimate of the required amount of preparation hours for student teaching and include this in the award of teaching hours.							3.1
Acknowledge the supervision of BSc and MSc students as part of teaching duty.							3.1
Develop a plan for PhD students and supervisors being represented in the development of the forthcoming version of PhD-Planner.							5.4

Table 1: The panel recommendations and the links to planned actions. Some actions in the action plan are based primarily on the survey study and are without clear links to panel recommendations. Note that the recommendation regarding part A exam is based on a misunderstanding. The part A exam for 3+5/4+4 studies already reflects a regular MSc exam.

Action	2022				2023				Responsible
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
<b>Theme 1: Student recruitment and onboarding</b>									
1.1									PhD comm., PCC, HoS
1.2									PhD comm., PCC, HoS
1.3									HoS, FM
1.4									PhD admin, HoS
1.5									PhD comm., PCC, HoS, PhD admin
1.6									PhD comm., HoS, FM
<b>Theme 2: GSNS committees and student representation</b>									
2.1									PhD admin
2.2									HoS, FM
2.3									PhD comm., HoS, FM
2.4									PhD comm. and HoS (with support from PCC and FM)
<b>Theme 3: Management of teaching workload</b>									
3.1									PhD comm., HoS, FM, PhD admin
3.2									PCC, HoS
3.3									PhD comm., HoS, FM
<b>Theme 4: Integration of educational elements</b>									
4.1									PhD comm., PhD admin, HoS
4.2									PhD comm., PCC, PhD admin, HoS
4.3									
<b>Theme 5: Independent initiatives to support student well-being</b>									
5.1									PhD comm. and HoS (with support from PCC and FM)
5.2									PhD admin, HoS
5.3									PCC, HoS, FM
5.4									PhD comm., PCC, HoS
<b>Theme 6: The general PhD study framework</b>									
6.1									PhD comm.
6.2									HoS, FM

Table 2: Implementation plan for actions in 2022-23. Green colours indicate timing of actions, yellow indicates timing of follow up/evaluation. Abbreviations: PhD comm. = PhD committee, PCC = Program chair committee, HoS = Head of school, FM = Faculty management, PhD admin = PhD administration.